

# 2014

ACEA SUSTAINABILITY  
REPORT

The Corporate Identity

The socio-economic relationships  
with the stakeholders

Environmental Issues

Environmental Report

CHANGE



# 2014

## ACEA SUSTAINABILITY REPORT

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# LETTER FROM THE CEO AND CHAIRMAN

*The Sustainability Report, now in its 17<sup>th</sup> edition, seeks to give stakeholders a vision of the Company that combines economic and governance aspects with social and environmental concerns, in keeping with a focus on corporate sustainability that we want to strengthen and keep ever present in managing the Company. The business area in which the Group operates, providing services of general economic interest, and the long-term nature of its operations have helped to raise awareness within Acea of the social role it plays. Corporate social sustainability and responsibility are thus inherent in the Group's identity, indeed they form part of its core values and code of conduct, its management methods and ways of engaging with stakeholders, as well as its monitoring of performance.*

*With regard to values, both the Code of Ethics, adopted in 2004 and updated in 2012, and commitment to the Global Compact, signed in 2007, bear witness to the constant efforts made over the years by Acea. This year we have attempted to strike the right balance between the principles set forth in the "Global Pact" and actions undertaken, taken as elements belonging to the "advanced" level of the Communication on Progress disclosure, as per the Global Compact.*

*With regard to actions undertaken to meet the requests from and win the engagement of our stakeholders, in January 2015 our headquarters played host to a multistakeholder focus group, with the aim of raising, discussing and reviewing topics of mutual interest and information-related expectations in relation to socio-environmental reporting. It is our belief that such actions will result in a wealth of information and relations that will help drive our Group's growth.*

*In this way, we want to make sure that the Company's growth, achieved by pursuing business goals, is sustainable, and combines economic development with attention to socio-environmental aspects. The 2014-2018 Business Plan reflected the following guiding lines: to have the Group play a major role in the industrial waste treatment arena, to raise the degree of customer satisfaction regarding services provided and relations with the Company, to consolidate the Group's franchise in the national water sector, seeking constant operational innovation, to develop the concept of becoming a smart utility for the management of electricity grids. In keeping with these strategies, the 2014-2018 Sustainability Plan was updated, with specific objectives to improve the quality of services provided, applying new technologies in production processes and intervention management, raising the efficiency of contacts with customers, partly through a social orientation of technological applications, being active in the territories where the Group operates, supporting community initiatives, limiting environmental impact, undertaking major energy-saving initiatives, enhancing human resources, with a staff management system focusing on merit and skills, remaining ever alert to safety in the workplace, with a growing focus on quality and safety in the supply chain.*

*Among the main initiatives undertaken during the year, emphasis is placed on the ACEA2PUNTOZERO scheme, which was launched as a result of internal strategic insights. The scheme is a challenge, in terms of technological and organisational innovation, and is designed to have a radical impact on the competitiveness of the Company. It centres on the modernisation and harmonisation of information systems in support of the Group's key operations and on the enhancement and involvement of staff, in order to make big strides forward in terms of operating processes and the quality of customer services.*

*In the area of governance, following the election of the Company's governing bodies our Board of Directors currently exceeds law requirements in terms of female representation. The Diversity management charter was approved, and the Diversity Committee was created.*

*In the area of industrial processes, activities were planned and rolled out to curb environmental impacts and reduce CO<sub>2</sub> emissions, network losses and energy and water consumption. Work continued on raising energy efficiency, such as installing LED lighting in the waste-to-energy plants of San Vittore del Lazio and Terni. Together with the Municipality of Rome, a plan was drawn up, to be rolled out over the next two years, for the switching all public lighting in Rome to LED technology. This will bring about estimated power savings in excess of 50%. In the area of smart grids, Acea continued to build on the ground-breaking work already completed. As regards smart city initiatives, Acea became lead company in the project RoMA - Resilience Enhancement of Metropolitan Area - working alongside institutional and industrial partners.*

Personnel, the Group's most important assets for its growth and creation of value, continued to be placed under a management system centring on the assessment and enhancement of individual merit. This system will be extended to all staff members. Intense training activities were carried out to raise skills and heighten the sense of belonging to the Group. There was again a marked drop in the number of accidents, largely as a result of the continued efforts made to promote a corporate-wide culture to ensure health and safety in the workplace, with the extension of certified management systems playing a role to this end.

During the year, Acea developed and expanded the application of a vendor rating system to its suppliers, monitoring and enhancing quality and safety aspects in the supply chain. It extended the green procurement system, and helped with the development of the network of related economic activities, farming out work to around 1,800 firms in Italy, and disbursing in excess of 530 million euros for the procurement of works, goods and services.

Finally, Acea sought to highlight its engagement in and commitment to the communities in which it operates, contributing to the wellbeing of the citizens. By way of example, Acea supported and sponsored major cultural and sporting events, paying special attention to the suburban areas of the city. One of these initiatives was the project called Luce. *Diversità è energia* (Light. Diversity means energy), which included events in the city centre and on the outskirts of Rome with the involvement of some schools: a way to learn the values of open dialogue, integration and acceptance of diversity. Acea also took a stance on social issues, staging the *Mai più* (Never again) event at the Macro museum in the Testaccio district of Rome on the eve of the International Day for the Elimination of Violence Against Women, underlining its commitment to combating all forms of discrimination, inequality and abuse. It also participated in the twelfth International Day of zero tolerance to female genital mutilation promoted by the Equal Opportunities Department of the Prime Minister's Office, and was a technical sponsor for the pink lighting of the Building of Lazio Regional Authorities and the Coliseum, symbols of the initiative Pink October, to encourage woman to join breast cancer prevention programmes, and in Romadiceno initiatives, together with Roma Capitale, staged on the occasion of the UN's International Day to stop violence against women, when Piazza del Popolo was turned red for the day.

**The Chief Executive Officer**  
**Alberto Irace**



**The Chairman**  
**Catia Tomasetti**



# DISCLOSING SUSTAINABILITY: METHODOLOGICAL NOTE

The *Sustainability Report* describes the **financial, social and environmental performances of the Group** with a view to providing stakeholders with information as clear, comprehensive and integrated as possible. This edition refers to the 2014 financial year and it represents the seventeenth report published by Acea on a yearly basis.

Following its formal approval by the **Board of Directors**, the *Sustainability Report* is published **in conjunction with the Annual Report** and is handed out during the Shareholders' Meeting<sup>1</sup>.

## GUIDELINES

Acea followed the reporting standards and performance indicators of the **GRI-G3.1 Guidelines**<sup>2</sup>, supplemented with the indicators as under the **Sector Supplement for Utility Companies in the Electricity Industry**.

The Report also includes the **Environmental Report**, consisting of more than **260 items** that quantify the physical flows arising from the Group's operations: values of production, factors used (resources) as well as outputs impacting the external environment (waste and emissions).

Since 2007, Acea has been involved in the **Global Compact (GC)** initiative, acknowledging **consistency between the ten principles** supported by the United Nations through the "Global Pact" **and the ethical guidelines established by the Group's Code of Ethics**. The Communication on Progress (CoP) is included in the Sustainability Report through a **combined statement of the GRI indicators and the Global Compact principles**, as pursuant to the understanding reached between the two organisations. Moreover, **starting from this year's Report** a decision was made to (a) place more emphasis on the elements that are consistent with the observance of the ten GC principles and (b) engage in the **Advanced Level of the CoP**.

## CONTENT AND STRUCTURE OF THE DOCUMENT

The contents of the *Sustainability Report*, the aim of which is to meet the information needs of the various stakeholders in a clear and balanced way, are provided according to the indications set out in the **GRI-G3.1 Guidelines** as applicable to the Company's business and operating background. Account was taken of the **legal nature of the (public) Company**, the **relationships between the parent company and the other Group companies**, the **business areas in which the Group engages** (energy, water and environment), the utility-oriented **corporate mission**, the **country - Italy - where business is mainly carried on** and the **types of stakeholders** with whom the Acea interacts.

In 2014, a **new analysis was launched for the purpose of defining the "materiality matrix"** (or relevance), as pursuant to the principles outlined in the GRI Guidelines<sup>3</sup> and consistent with the provisions under the new G4 standard. This analysis aims to **highlight the economic, social, environmental and governance-related topics that are most relevant to both** the Company and its stakeholders.

Activities started around mid-2014 and ended in the first two months of 2015. They were **performed by the in-house CSR team** and consisted of **3 main stages**:

- **Desk review of documents**, during which an **initial list of 36 "relevant topics" was drawn up, such topics** resulting from a review and systematisation of the contents of **about 60 documents** (scenario-related, representing stakeholders' demands, strategic and internal management-related documents, etc.), as well as from the application of calculation methods that took into account both the type of document being reviewed, subject to appropriate considerations, and the rate of occurrence of the topics;
- **Interviews with managers**, during which **20 managers** were interviewed to share the methodological approach to the analysis being conducted. The managers were also asked to state the extent to which they agreed or disagreed with each of the "relevant topics" identified in the first stage so as to have a **clearer picture of the Company's position**;
- **Multistakeholder focus groups** - On 21 January 2015, an independent consultant was recruited to hold **4 discussion groups** between the representatives of the different types of stakeholders, involving in all **34 people**. In addition to soliciting insights and suggestions aimed at making the *Sustainability Report* more effective from a communication perspective, during the meetings the workgroups were also asked to voice their opinions with regard to the "relevant topics" identified in the first stage so as to provide a **clearer picture of the stakeholders' position**.

Each one of these stages enabled **materiality index milestones** to be set, leading eventually to a **final drafting** of such matrix, as outlined in Chart 1, where only high and medium relevance<sup>4</sup> topics are shown. The materiality analysis process will be carried out every two years, with intermediate updates as appropriate, and the relevant findings will be reflected in the Report as they become available.

The 2014 *Sustainability Report* complies **with the standard elements and performance indicators** under the **GRI-G3.1 Guidelines** (core and additional) and the **Sector Supplement, with the highest level of application (A+)**, which requires that (i) **all the indicators be acknowledged** and (ii) the Report be **reviewed by an independent firm** with proven experience on the subject and on assurance-related matters. (see Table 1).

The Report provides additional information on the Group operations as compared to that required under the Guidelines, consistent with the principle of materiality and the Company's distinguished features.

<sup>1</sup> The new arrangement was first introduced in 2011 upon decision of the Top Management and then reflected in the Reporting and CSR Guiding Lines, which were adopted by Acea SpA's Ethics Committee in November 2011.

<sup>2</sup> In 2002, the Global Reporting Initiative (GRI), established in England in 1997 by the Coalition for Environmentally Responsible Economies (CERES), became an independent official centre to support the the United Nations Environmental Programme (UNEP) and collaborate with the Global Compact project. The GRI-G3.1 Guidelines (published in 2011), are available at [www.globalreporting.org](http://www.globalreporting.org). They outline the sustainability reporting standards and the economic, social and environmental performance indicators to be disclosed. The Electric Utilities Sector Supplement (2009 edition), complete with specific industry indicators, is also available on the GRI website. In 2013, the G4 standard was published, featuring a new and more challenging edition of the Guidelines. The GRI allowed companies to adopt the G4 starting from 2015 financial year.

<sup>3</sup> While it has yet to adopt the new edition of the GRI-G4 Guidelines governing the preparation of the Sustainability Report, Acea decided to apply the principles outlined therein in order to identify the most relevant topics ("materiality").

<sup>4</sup> Each of the topics stated in the materiality index is a an overview of a wide range of closely related topics, which cannot be addressed thoroughly in this paper due to their level of detail.

CHART 1 – MATERIALITY: RELEVANCE MAPPING



1	CREATION OF ECONOMIC AND FINANCIAL VALUE
2	OCCUPATIONAL HEALTH AND SAFETY
3	OBSERVANCE OF RULES AND COMPLIANCE
4	DEVELOPMENT OF NEW TECHNOLOGIES FOR SERVICE EVOLUTION
5	PROMOTING ETHICS AND INTEGRITY IN BUSINESS CONDUCT
6	HUMAN RESOURCE DEVELOPMENT AND EMPOWERMENT
7	MITIGATION OF EMISSIONS: CLIMATE CHANGE, QUALITY OF AIR AND SOIL
8	EFFICIENT ENERGY USE
9	SERVICE LEVEL IMPROVEMENT
10	IMPROVING WAYS AND CUSTOMER CONTACT CHANNELS
11	DEVELOPING EMPLOYMENT AND EMPLOYMENT PROTECTION
12	UPGRADING WASTEWATER TREATMENT AND SLUDGE DISPOSAL SYSTEMS
13	MITIGATING RISKS AND DEVELOPING BUSINESS OPPORTUNITIES
14	BUILDING AND STRENGTHENING COMPANY'S REPUTE
15	SAFEGUARDING DRINKING WATER QUALITY
16	REDUCING WATER LOSSES
17	DEVELOPING INVESTMENTS FOR ENVIRONMENTAL IMPACT REDUCTION
18	EFFICIENT WATER USE
19	SUPPLY CHAIN SUSTAINABLE MANAGEMENT AND SELECTION/EVALUATION OF SUPPLIERS WITH ESG CRITERIA
20	DEVELOPMENT OF WASTE-TO-ENERGY AND INTEGRATED MANAGEMENT OF WASTE
21	CONSUMER PROTECTION
22	CONTRIBUTING TO THE DEVELOPMENT OF THE ECONOMIC BASE
23	TOP MANAGEMENT REMUNERATION AND EVALUATION
24	ENHANCEMENT OF BUSINESS IMPACT ON COMMUNITY
25	IMPROVING ONLINE METHODS FOR CUSTOMER INTERACTION
26	MANAGEMENT OF COMPANY DIVERSITY AND WELFARE
27	INCLUDING SUSTAINABILITY ELEMENTS IN CORPORATE GOVERNANCE
28	DEVELOPING GREEN PROCUREMENT
29	RAISING COMMUNITY AWARENESS ON USING RESOURCES RESPONSIBLY
30	SAFEGUARDING BIODIVERSITY
31	MEETING SUPPLIERS' PAYMENT DEADLINES
32	FOSTERING PRODUCTION OF ENERGY FROM RENEWABLE SOURCES AND INCENTIVES
33	STAKEHOLDERS' FEEDBACK AND ENGAGEMENT
34	PROTECTION OF HUMAN RIGHTS
35	DEVELOPING PARTNERSHIPS WITH PUBLIC AND PRIVATE ENTITIES
36	ENHANCING ESGs IN DEALINGS WITH THE FINANCIAL COMMUNITY

- Economic and governance issues
- Social issues
- Environmental issues

TABLE 1 - LEVELS OF APPLICATION OF THE GRI-G3.1 GUIDELINES

APPLICATION LEVEL		C	C+	B	B+	A	A+
STANDARD DISCLOSURE	PROFILE DISCLOSURE	Report on: 1.1 2.1-2.10 3.1-3.8 3.10-3.12 4.1-4.4 4.14-4.15	REPORT ASSESSED EXTERNALLY	Report on all the criteria listed for Level C plus: 1.2 3.9, 3.13 4.5-4.13 4.16-4.17	REPORT ASSESSED EXTERNALLY	Same as requirements for level B	REPORT ASSESSED EXTERNALLY
	DISCLOSURES ON MANAGEMENT APPROACH	Not required		Management Approach Disclosures for each indicator Category		Management Approach Disclosures for each indicator Category	
	G3.1 PERFORMANCE INDICATORS AND SECTOR SUPPLEMENT PERFORMANCE INDICATORS	Report fully on a minimum of 10 performance indicators, including at least one indicator from each of economic, social and environment		Report on a minimum of 20 performance indicators, at least one from each of economic, environment, human rights, work, society, product responsibility		Report on all core performance indicators of the G3.1 with regard to the principle of materiality by either reporting or explaining any omissions	

The **structure of the 2014 Sustainability Report** consists of three sections: **Corporate Identity, Socio-economic Relationships with Stakeholders** and **Environmental Issues**, supplemented with the **Environmental Report** (see Chart 2). Moreover, consistent with the different scope of consolidation of the statutory financial statements, whereby water companies operating in Tuscany, Campania and Umbria were consolidated according to the shareholders' equity method as laid down by the new accounting principles, this year a separate chapter was dedicated to such companies: **Water Company Data Sheets**.

The Report is circulated by **posting it on the corporate website** – [www.acea.it](http://www.acea.it) – **as well as on the Company intranet**. It is distributed on a pen drive to a selected mailing list (around 750 recipients) and on the occasion of events.

CHART 2 - STRUCTURE OF THE 2014 SUSTAINABILITY REPORT



**Corporate Identity**  
**Socio-economic relationships with the stakeholders**  
**Environmental Issues**



**Environmental Report**

**REPORT BOUNDARY**

The area being reported on (i.e., the “Report Boundary”) was established **in relation to Group size** (see the *Group Profile* below) and **without omitting significant information or data**.

The wider boundary being considered pertains to **financial information** referring to the sum of the parts of Acea SpA and the other companies included in the **basis of consolidation**, as defined in the 2014 *Consolidated Financial Statements*<sup>5</sup>. **Whenever the aforesaid boundary changes**, depending on the actual availability of data as related to the progressive centralised management and significance thereof, **any such changes will be appropriately reflected in the text**<sup>6</sup>.

The activities carried out by the parent company and the main operating companies in the water, energy and environmental businesses, where the Group’s most significant financial, social and environmental results are achieved, were always subject to reporting on a regular basis to ensure data comparability over time.

5 Available at [www.acea.it](http://www.acea.it), Shareholders section.

6 In several cases, the reporting boundary of the Socio-economic Relationships with Stakeholders and Environmental Issues sections does not tally with the basis of consolidation, although it refers to the Group’s major companies. Such difference are due to the fact that not all data is aggregated and managed at a centralised level (e.g. in respect of Employees or Suppliers). Boundary adjustments are always shown in the text, in the boxes named Report Boundary.



## DEFINITIONS AND BOUNDARY

“Acea Group” and “Acea” mean all the companies comprised in the basis of consolidation, including Acea SpA.

“Acea SpA”, “Parent Company” and “Holding Company” are terms that carry the same meaning.

The main companies that are comprised in the Report Boundary in addition to Acea SpA include: Acea Distribuzione, Acea Illuminazione Pubblica, Acea Reti e Servizi Energetici, Acea Energia and Acea Produzione, A.R.I.A., Aquaser, Acea Ato 2, Acea Ato 5, LaboratoRI, Acea8cento.

**The companies that engage in the water business include:** Acque, Gori, Acquedotto del Fiora, Publicacqua and Umbra Acque. This year they have been consolidated with the shareholders' equity method following the review of the accounting principles, **are included in some of the Group's data and are described in a separate chapter.**

Where possible, the report boundary also includes other companies, as from time to time specified in the document.

## DATA RELIABILITY AND RETRIEVAL SYSTEM

The data and information published in the Sustainability Report are essentially provided by the relevant Divisions (dataowners). They were further supplemented and illustrated through in-depth discussions and exchanges between the internal workgroup, who is responsible for preparing the Sustainability Report, and the Industrial Areas, the Divisions and Companies directly concerned, until final validation. Where necessary, data were reprocessed or restated according to the adopted Guidelines.

Prior to being published, the Report is reviewed by an **independent auditing firm** specialised in **assurance**, with whom Acea does not have any joint interests or any other links. The independent firm is tasked with checking the adequacy of the methods used to prepare the document, examining the contents throughout the document, including the *Environmental Report*, checking consistency with the Guidelines adopted (*GRI-G3.1* and *Sector Supplement*) and **issuing an overall opinion on its clarity, completeness and transparency.** (see *Independent Auditors' Opinion Letter*).

## MEASUREMENT SYSTEMS

Social and environmental quantitative data were produced:

- Where possible, through a **direct measurement** of the items correlated to the matters being reported on;
- In other cases, by **calculating or estimating the values** of the items based on the best information available.

Each piece of environmental data is commented on in the **accompanying notes to the Environmental Report**, specifying whether it results from calculation, measurement or estimation.

## OTHER SOURCES OF INFORMATION ON GROUP PERFORMANCES: THE WEBSITE

Up-to-date information on the Group is available at [www.acea.it](http://www.acea.it):

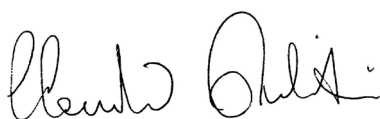
- The **“Regulations and Values”** section contains documents and information on Corporate Governance, the Ethics Committee and the text of the Group's *Code of Ethics* (2012 version);
- The **“Shareholders”** section contains economic-financial reports, press releases, presentations, etc. The “Highlights” web page provides an interactive view of the charts relating to the main economic and financial data of the last few years, allowing such data to be compared with one another as well as with data of leading national competitors. Users can also access a portal containing the online version of the *Financial Statements* (in Italian and English);
- The **“Sustainability”** section provides data and information on Group performances, data relating to the various stakeholders, an area dedicated to “sustainable news”, along with the full PDF text of the 2014 *Sustainability Report* and previous editions. In addition, a **surfable version of the Report** is available in Italian and English on a dedicated website;
- The **“Quality and Safety”** section contains information on (now fully integrated) topics relating to **quality, health and safety in the workplace, environment and energy**, in respect of which the relevant management systems within the Group undergo certification;
- The **“Suppliers”** section contains information regarding legislation, Qualification Systems and online tenders;
- The **Customers** section provides information and **links to the websites of the companies that run the services**;
- The **“Communications”** section hosts an area dedicated to press reviews and “top news” as well as information on the advertising campaigns launched and the main events organised with the aid of Acea. An audio/video area is also available.

Requests for additional information may be sent to the following email address:

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# COMPLIANCE WITH THE GLOBAL COMPACT

The Global Compact is an initiative launched by the Secretary General of the United Nations at the end of the proceedings of the World Economic Forum in 1999. In his appeal, he invited the leaders of the world economy to provide their support and champion nine **universal principles** relating to **human rights**, **labour** and the **environment**, with a tenth principle being added in 2004 - **the fight against corruption**. Since then, the network of organisations and business that join this initiative through formal commitments has grown.

Acea subscribed to the ten principles as early as 2007, renewing its support every year.

## COMBINED STATEMENT OF GLOBAL COMPACT PRINCIPLES AND GRI INDICATORS

Below is a **combined statement**<sup>7</sup> showing the correlation between the **Global Compact principles and the indicators of the GRI Guidelines**. It makes it possible to locate, within the *Sustainability Report*, the information reflected in the *Communication on Progress* that every Global Compact-compliant company is required to provide.

TABLE 2 - GLOBAL COMPACT - GRI MATCHING

GLOBAL COMPACT PRINCIPLES		CORRESPONDING GRI INDICATORS	SUSTAINABILITY REPORT
<b>Human rights</b>	<b>1:</b> Businesses are required to further and respect the human rights recognised universally within the ambits of the respective sphere of influence.	EC5 – LA4 – from LA6 to LA9 – LA13 – LA14 – from HR1 to HR9 – PR1 – PR2 – PR8	Pages 101 – 96 et seq. – 80, 99 et seq., 101 – 95, 97 et seq. 198 – 102 – 26, 83, 87-89, 97 et seq., 102, 105, 108, 174 – 41 et seq., 68, 71, 88-90, 116 – 175 – 176
	<b>2:</b> Businesses must ensure that they are not, even indirectly, party to the abuse of human rights.	from HR1 to HR9	Pages 26, 83, 87-89, 97 et seq., 102, 105, 108, 174
<b>Labour</b>	<b>3:</b> Businesses are required to support freedom of association of workers and recognise the right to collective bargaining.	LA4 – LA5 – from HR1 to HR3 – HR5	Pages 96 et seq. – 96 et seq. – 83, 87-89, 102, 105 – 174
	<b>4:</b> Businesses must uphold the elimination of all forms of forced and compulsory labour.	from HR1 to HR3 – HR7	Pages 83, 87-89, 102, 105 – 174
	<b>5:</b> Businesses must uphold the effective elimination of child labour.	from HR1 to HR3 – HR6	Pages 83, 87-89, 102, 105 – 174
	<b>6:</b> Businesses must uphold the elimination of any form of discrimination regarding employment and profession.	EC7 – LA2 – LA13 – LA14 – from HR1 to HR4	Pages 171 – 92-95 – 95, 97 et seq. 108 – 102 – 26, 83, 87-89, 97 et seq., 102, 105, 108
<b>Environment</b>	<b>7:</b> Businesses are required to have a precautionary approach to environmental challenges.	4.11 – EC2 – EN18 – EN26 – EN30	Pages 42, 149 – 22, 124, 137 et seq. – 136, 137 et seq. – 128, 149-151 – 127
	<b>8:</b> Businesses are required to undertake initiatives which further greater environmental responsibility.	PR3 – PR4 – from EN1 to EN30	Pages 56, 61, 68, 71 – 57-61, 64 – 84 et seq., 125-128, 135-138, 141, 146-152, 176-178, <i>Environmental Report</i> 189-191, 193, 195
	<b>9:</b> Businesses are required to encourage the development and disclosure of technologies which respect the environment.	EN2 – from EN5 to EN7 – EN10 – EN18 – EN26 – EN27 – EN30	Pages 84 et seq., 176 – 135, 137 et seq. – 147 et seq. – 136, 137 et seq. – 128, 148-151, 178 – 178 – 127
<b>Fight against corruption</b>	<b>10:</b> Businesses undertake to fight corruption in all its forms, including extortion and bribery.	from SO2 to SO6	Pages 40, 105, 112, 175
<b>ALL (1-10)</b>		1.1 - 1.2 - from 4.1 to 4.10 – 4.12 – 4.13 – 5 (DMA) – SO5	Pages 4 et seq., 26 et seq. – 4 et seq., 18, 22-27, 30-35 – 26 et seq., 36-41, 98, 102 et seq., 109, 169, 170 – 6, 37, 42, 84, 89, 99, 113 et seq., 116, 124 – 112, 114 – 16, 22 et seq., 26-28, 41 et seq., 49, 73 et seq., 78, 83-85, 87, 92, 99, 101, 104, 107, 109, 112-115, 124, 125 et seq., 138, 141, 148 et seq., 152 – 112, 115

<sup>7</sup> The aforementioned statement was prepared by UNGlobal Compact and Global Reporting Initiative and it is available online at [www.unglobalcompact.org](http://www.unglobalcompact.org) in the text called Making the Connection. The GRI Guidelines and the UNGC Communication on Progress.

## ADVANCED LEVEL OF COMMUNICATION ON PROGRESS

Starting from this year, Acea decided to further increase consistency between the principles set forth in the “Global Pact” and the actions undertaken, with the elements meeting the **Advanced Level of Communication on Progress** also being identified in the *Sustainability Report*, as under the Global Compact. Below is a table listing such elements according to 21 criteria defined by the Global Compact, with reference being made to the document pages where the relevant data and information can be found.

TABLE 3 – THE ELEMENTS OF ADVANCED COP

ADVANCED CRITERIA	AREAS OF CORRESPONDENCE AND PAGES OF THE SUSTAINABILITY REPORT
<b>CRITERIA 1-2</b> <i>Implementing the ten principles in the business strategies and operating management</i>	<b>Integrating sustainability in corporate divisions and business units:</b> pages 30 et seq. <b>Best practices:</b> pages 6, 30 <b>Implementing sustainability in the value chain:</b> pages 84, 88,89, 90 et seq. <b>Best practices:</b> page 89
<b>CRITERIA 3-5</b> <i>Robust management of policies and procedures pertaining to human rights</i>	<b>Commitments, Strategies or Policies:</b> pages 37, 40 <b>Management Systems:</b> pages 33, 40, 99, 100 <b>Monitoring and Assessment Mechanisms:</b> pages 6, 9, 33, 168 et seq.
<b>CRITERIA 6-8</b> <i>Robust management of labour policies and procedures</i>	<b>Commitments, Strategies or Policies:</b> pages 18, 37, 97 <b>Management Systems:</b> pages 18, 33, 40, 90 et seq., 103, 151 <b>Monitoring and Assessment Mechanisms:</b> pages 6, 9, 168 et seq. <b>Best practices:</b> p.89
<b>CRITERIA 9-11</b> <i>Robust management of policies and procedures pertaining to environment</i>	<b>Commitments, Strategies or Policies:</b> pages 34, 124 et seq. <b>Management Systems:</b> pages 41 et seq., 84 et seq., 125, 151 <b>Monitoring and Assessment Mechanisms:</b> pages 6, 9, 124, 168 et seq. <b>Best practices:</b> pages 107, 116
<b>CRITERIA 12-14</b> <i>Robust management of policies and procedures pertaining to corruption</i>	<b>Commitments, Strategies or Policies:</b> pages 37, 126 et seq. <b>Management Systems:</b> pages 33, 40 <b>Monitoring and Assessment Mechanisms:</b> pages 6, 10, 175
<b>CRITERIA 15-18</b> <i>Actions aimed at supporting broader development goals of the United Nations</i>	<b>Operational management in furtherance of the objectives:</b> pages 90, 125 et seq. <b>Social investments and philanthropic endeavours:</b> pages 80 et seq. <b>Advocacy activities:</b> pages 34, 68 et seq., 80, 97 <b>Partnerships and collective actions:</b> pages 27, 81, 82
<b>CRITERIA 19-21</b> <i>Sustainability governance and leadership</i>	<b>CEO's commitment:</b> pages 4 et seq., 30 <b>Board of Directors' engagement:</b> pages 6,30 <b>Stakeholders' involvement:</b> pages 6 et seq., 43 et seq.

# INDEPENDENT AUDITORS' OPINION LETTER



Reporto generale di bilancio  
2014/15  
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## Independent auditors' report on the limited assurance engagement of ACEA Group's Sustainability Report as of December 31, 2014 (Translation from the original Italian text)

To the Shareholders of ACEA S.p.A.

1. We have carried out the limited assurance engagement of the sustainability report (hereinafter the "Report") of ACEA S.p.A. and its subsidiaries (hereinafter "ACEA Group") as of December 31, 2014. The Management of ACEA S.p.A. is responsible for the preparation of the Report in accordance with the "Sustainability Reporting Guidelines 3.1" issued in 2011 by GRI - Global Reporting Initiative integrated by specific indicators included in "Sustainability Reporting Guidelines & Electric Utilities Sector Supplement (EUSS)" issued in 2009 by GRI that are detailed in the paragraph "Methodological Note", as well as for determining the Group's commitments regarding the sustainability performances and the reporting of achieved results. The Management of ACEA S.p.A. is also responsible for the identification of the stakeholders and of significant matters to report, as well as for implementing and maintaining appropriate processes to manage and control internally data and disclosures indicated in the Report. Our responsibility is to issue this report on the basis of the work performed.
2. Our work has been conducted in accordance with the principles and guidelines established by the "International Standard on Assurance Engagements 3000 - Assurance Engagements other than Audits or Reviews of Historical Financial Information" ("ISAE 3000"), issued by the International Auditing and Assurance Standard Board. ISAE 3000 requires the compliance with ethical requirements ("Code of Ethics for Professional Accountants" issued by the International Federation of Accountants - "IFAC"), including professional independence, as well as planning and executing our work in order to obtain a limited assurance, rather than a reasonable assurance, that the Report is free from material misstatements. A limited assurance engagement of the Report consists of making inquiries, primarily with company's personnel responsible for the preparation of the information included in the Report, in the analysis of the Report and in other procedures in order to obtain evidences considered appropriate. The procedures performed on the Report are summarized below:
  - a. comparison between the economic and financial information and data included in the Report with those included in the Acea consolidated financial statements as of December 31, 2014, on which we issued our auditors' report, pursuant to art. 14 and 16 of Legislative Decree n. 39 dated April 1, 2015;
  - b. analysis of the processes that support the generation, recording and management of the quantitative data included in the Report. In particular, we have carried out the following procedures:

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- interviews and discussions with personnel of ACEA S.p.A., ACEA Distribuzione S.p.A., ACEA Ato2 S.p.A., A.R.I.A S.r.l. and ACEA Produzione S.p.A. to obtain an understanding about the information, accounting and reporting system in use for the preparation of the Report and about the processes and the internal control procedures supporting the collection, aggregation, data processing and transmission of data and information to the department responsible for preparation of the Report;
- analysis, on a sample basis, of the documentation supporting the preparation of the Report in order to obtain evidences of the processes in use, their adequacy and the operation of the internal control system for the correct treatment of data and information in relation to the objectives described in the Report;
- c. analysis of the consistency of the qualitative information included in the Report to the guidelines identified in paragraph 1. of the present report and of their internal consistency, with particular reference to the strategy, the sustainability policies and the identification of the significant matters for any category of stakeholder;
- d. analysis of the process relating to the engagement of stakeholders;
- e. obtaining of the representation letter, signed by the legal representative of ACEA S.p.A., relating to the compliance of the Report with the guidelines indicated in paragraph 1., as well as to the reliability and completeness of information and data presented in the Report.

A limited assurance engagement is substantially less in scope than a reasonable assurance engagement performed in accordance with ISAE 3000 and consequently we may not have become aware of all the significant events and circumstances which we could have identified had we performed a reasonable assurance engagement.

The Directors restated certain comparative data related to the prior year with respect to the data previously presented, on which we issued our auditors report dated April 30, 2014. We have examined the method used to restate the comparative data and the information presented in the explanatory notes in this respect, for the purpose of expressing this report.

3. Based on our work, nothing has come to our attention that causes us to believe that the sustainability Report of ACEA Group as of December 31, 2014 is not in compliance, in all material respects, with the "Sustainability Reporting Guidelines 3.1" issued in 2011 by GRI - Global Reporting Initiative integrated by specific indicators included in "Sustainability Reporting Guidelines & Electric Utilities Sector Supplement (EUSS)" issued in 2009 by GRI as stated in the paragraph "Methodological Note" of the Report.

Rome, April 3, 2015

Reconta Ernst & Young S.p.A.  
Signed by: Filippo Maria Aleandri, partner

*This report has been translated into the English language solely for the convenience of international readers.*





# 2014

## CORPORATE IDENTITY

“We achieved all financial targets that we set ourselves and, at the same time, we started in a strong and concrete way the modernisation of all group companies. Through strategic investments in new technologies and thanks to the cooperation of our employees, soon all industrial activities and services provided by Acea will be operated in digital mode”.

*Catia Tomasetti, Acea Chairwoman*

The Acea Headquarters in piazzale Ostiense with the fountain built in 1962 by the architects Macrì, Quaroni and Romitelli, winners of a contest.

# CORPORATE IDENTITY

Acea is one of Italy's major multiutility companies that has been engaging in the delivery of network-related services of general economic interest for over a century. The Company started its industrial endeavours in the area of Rome, where it still holds a leading role in the energy and water sectors, then extending its franchise across the whole country by acquiring equity interests and participating in the operational management of other local public service businesses. The Group, which showcases a strong financial position, operates in compliance with the Corporate Social Responsibility and sustainable development principles set forth in the Code of Values across all its business areas: the energy

industry (generation, distribution and sale of electricity and gas, public lighting management, energy efficiency), the integrated water service (catchment, distribution, collection and treatment of wastewater) and environmental services (treatment, energy and economic enhancement of waste).

Today the Acea Group is Italy's leading water operator in terms of inhabitants reached. Moreover, according to the latest data published by AEEGSI it ranks third in terms of distributed volumes of electricity and fourth in terms of volumes sold on the end-user energy market. With regard to the environmental area, it ranks fifth in terms of volumes of waste treated at a national level.

## ACEA'S HISTORY

**1909**

*It was established as "Azienda Elettrica Municipale" (AEM) of the Municipality of Rome for the purpose of supplying energy for public and private lighting systems.*

**1937**

*It changed its name to Azienda Governatoriale Elettricit  e Acque (AGEA) and was entrusted with the running of the aqueduct service.*

**1945**

*It changed its name to A.C.E.A. - Azienda Comunale Elettricit  ed Acque.*

**1964**

*It took over the assets of Acqua Marcia and acquired the management of the entire Roman aqueduct service.*

**1975**

*It was appointed by the Rome Municipal Authority to carry out the Plan to improve water and sanitary conditions in outlying districts of Rome.*

**1985**

*It acquired the wastewater treatment service, laying the foundations for the integrated management of the entire water cycle.*

**1989**

*It updated its name to A.C.E.A. - Azienda Comunale Energia e Ambiente and developed expertise in the artistic and monumental lighting sector.*

**1992**

*It acquired legal status, entrepreneurial independence and adopted its own Articles of Association, keeping its nature of instrumental municipal body.*

**1998-2000**

*It began to operate as a Joint-Stock Company under the name of Acea SpA. In 1999, it went public and became a corporate group, launching a policy for expansion on both the Italian and overseas markets and exploring new areas of operation.*

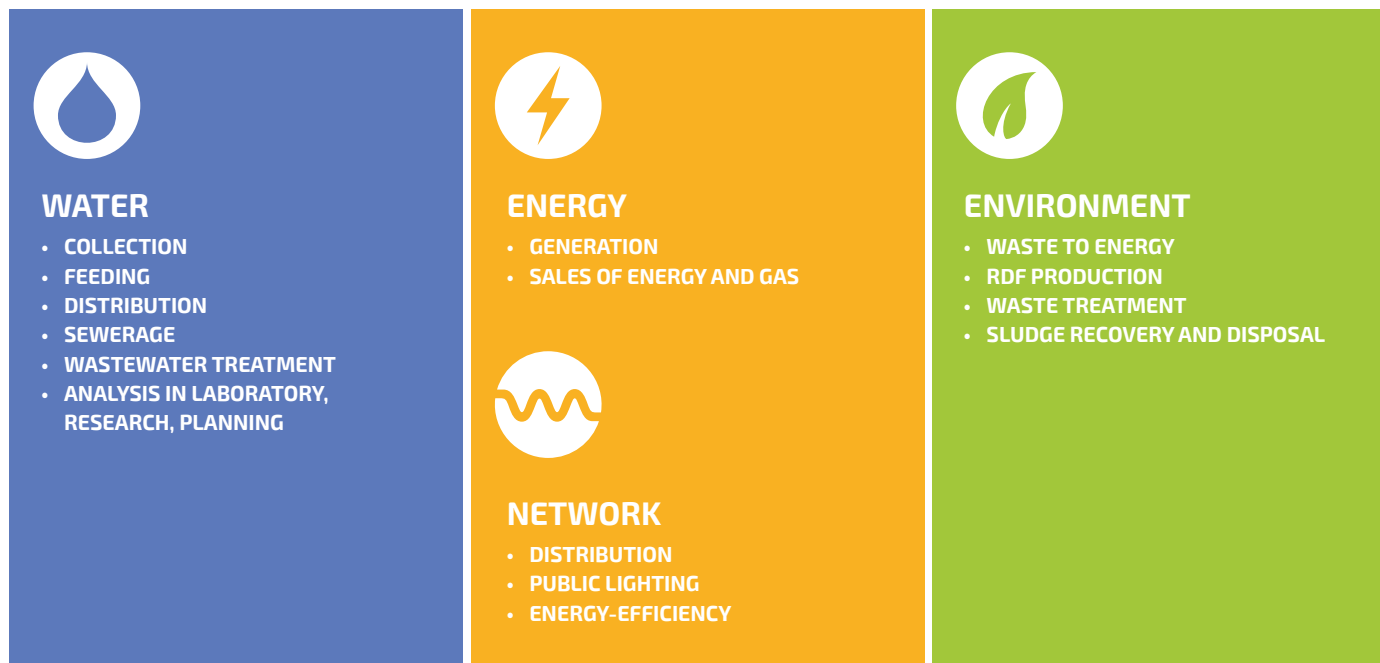
**2001-2002**

*It gained a stronger foothold in Rome: in 2001 it took over from Enel SpA the energy distribution business in the metropolitan area of the capital, while in 2002 it acquired the management of the sewerage service for the Rome Municipal Area as part of the award of the integrated water cycle in ATO 2 - Central Lazio. In the same year, together with the partner GdF Suez, it created the joint venture AceaElectrabel engaging in the energy business.*

**2003-2005**

*It developed its energy production capacity, investing in Tirreno Power and acquiring additional generation companies between 2003 and 2004. In the water sector, it was awarded the management of the integrated water service in new Optimum Areas of Operation (ATOs), in Lazio, Tuscany and Campania.*





**2006**

*It took over TAD Energia Ambiente SpA, which engaged in the production of energy from waste (waste-to-energy). It strengthened its commercial networks and initiatives aimed increasing energy and gas sales, showing an interest for the potential seen in other areas (Puglia, Umbria, Tuscany).*

**2007-2009**

*It increased its energy production capacity from both traditional sources, by building and starting up new thermoelectric power plants, as well as renewable sources. In this respect, it strengthened generation from wind and photovoltaic sources and laid the foundations for the growth of waste-to-energy business. It consolidated the management of the integrated water management service in ATOs located in Lazio, Campania, Tuscany and Umbria. In 2008, it established Acea8cento for the internal management of contact channels between Group companies and customers.*

**2010-2012**

*Together with partner GdF Suez, it decided to wind up the AceaElectrabel joint venture, thereby becoming gaining full independence in the energy sector. In this connection, in 2011 Acea created its own corporate structure for the production (Acea Produzione, mainly focused on the hydroelectric business) and sale of electricity (Acea Energia). It engaged in technological innovation and business efficiency within the sphere of electricity distribution (smart grids and sustainable mobility), while in the environment business it revamped the waste-to-energy plants and strengthened the operations of the waste recovery and treatment plants. Finally, consistent with the new business plan approved in 2012, it sold its photovoltaic assets located in Puglia, Lazio and Campania.*

**2013**

*It continued to develop its environmental business, acquiring S.A.MA.CE., a company focused on sludge and organic waste treatment for composting. It tackled the new regulatory provisions governing the water industry by contemplating further consolidation actions and it increased its commitment towards the application of innovative technologies in the area of energy distribution grids.*

**2014**

*Started an internal technological evolution and organisational process (ACEA2PUNTOZERO) by modernising and harmonising the information systems supporting the Group's core business while enhancing the engagement and co-operation of the employees (Enterprise 2.0), the goal being to achieve significant improvements with regard to both the operating processes and quality of services delivered to customers.*

## THE ACEA2PUNTOZERO PROGRAMME

In April 2014, the ACEA2PUNTOZERO scheme was launched following internal strategic insights that led to a **re-thinking of the corporate vision** focused on (i) **customer empowerment** and satisfaction considering, among other things, the emerging expectations and highly characterised needs, and (ii) the opportunities for **adapting working procedures to technological innovation** and automation.

This project, which aims to help the Acea Group reach *best in class* positions over the next three-year term, entails modernising and harmonising working procedures and information systems **in furtherance of mission-critical corporate operations**.

The **main focus areas** include:

**Customer Relationship Management (CRM)** – To rely on a *customer centric* business model that makes the customer part of the business, leading the different companies to provide customised services (*customer experience*);

**Meter to Cash** - To use group-wide integrated information systems in order to optimise the processes involved in the flow, ranging from consumption data measurement to billing and credit, the goal being to curb criticalities and reduce customer response time;

**WFM (Workforce Management)** - To manage people and operational actions systematically through automation, standardisation and optimisation tools with a view to improving customer service.

The **leverage afforded by technology** will be heavily relied upon to link the different focus areas described above, allowing (i) the inefficiencies caused by different system interfaces to be removed, (ii) ensuring that significant information is readily available for a smoother decision-making process, and (iii) creating a dependable and consistent information base that will in turn ensure increased information quality and integrity for the business.

**ACEA2PUNTOZERO** is therefore a general company modernisation scheme focused on (i) a **customer centric strategy**, (ii) the adoption of **state-of-the-art technological and IT solutions**, and (iii) a **review of the corporate vision and modus operandi of the people** who are called upon to share and support the programme through their participation: these factors will be crucial to the success of the entire project.

TABLE 4 – THE ACEA GROUP FIGURES (2014)

<b>Employees</b> (number of, by % of consolidation)	5,105
<b>Net Revenues</b> (€/m)	3,038.3
<b>Total Capitalisation</b> (€/m)	4,139.6
Bonds	1,909.1
Shares	1,098.9
Long-term Loans	1,131.6
<b>Total Assets</b> (€/m)	6,911.6
<b>Electricity</b>	
Generation (GWh) (gross)	807.93
of which from renewable sources (GWh)	646.79
Hydroelectric	495.18
Photovoltaic	15.46
Waste to Energy	136.15
Distribution (GWh)	10,954
Sale (GWh) (free market and enhanced protection market)	10,887
Electricity and gas customers (number)	1,525,553
<b>Waste to Energy (WtE)</b>	
Energy Generation (GWh) (gross)	287
Waste to Energy	
RDF (t)	224,336
pulper (t)	99,397
<b>Public Lighting</b>	
Lighting units managed in Rome (number)	192,690
<b>Water (integrated water service)</b>	
Drinking water supplied (mm <sup>3</sup> )	656.8
Number of tests on drinking water	1,187,937
wastewater treated (mm <sup>3</sup> )	940.7
Inhabitants served in Italy (millions)	8.5
Abroad (millions)	5.3

**Note:** Figures relating to energy generation pertain to Acea Produzione, Acea Reti e Servizi Energetici and A.R.I.A., a company wholly-owned by Acea SpA; figures relating to the water services, pertaining entirely to the Group, refer to the main water companies.

Acea SpA is listed on the Electronic Stock Exchange organised and managed by Borsa Italiana. The Municipality of Rome is Acea SpA's majority shareholder, holding 51% of its share capital. As at **31 December 2014**, other significant direct or indirect equity interests were held by the Caltagirone Group (15.9%), the Suez Environnement Company SA (through Ondeo Italia SpA) (12.5%) and Norges Bank (2.0%). The rest of the market holds 18.6% of the share capital (17.4% as at 31 December 2013).

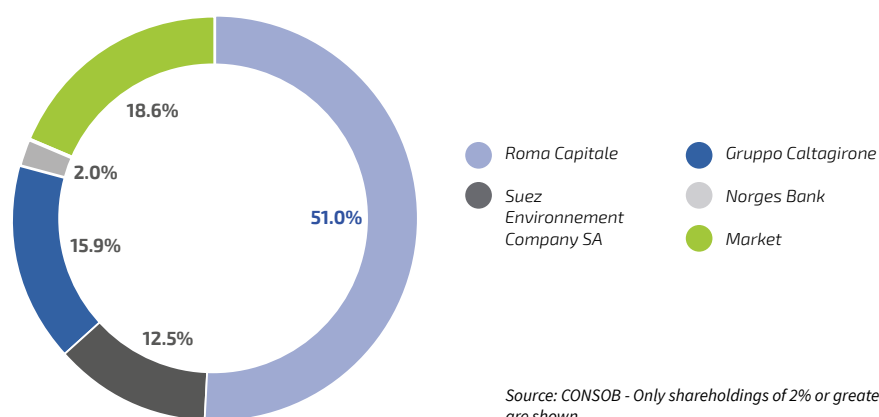
Acea SpA (parent company) holds the corporate shareholdings and discharges duties pertaining to **strategic policy, control and economic and financial co-ordination** of the Group's activities. It also provides management support to the operating companies by supplying executive, legal, logistical, technical, financial and administrative services. Acea SpA's **macrostructure** consists of **corporate functions** and **four business areas** - Water, Networks, Energy, Environment - to which the individual companies report (see Chart 7).

Effective 1 January 2014, the **application of the new accounting standards** in respect of joint agreements (IFRS11) is mandatory. The new requirements have introduced **changes to the method of consolidation** (from proportional to shareholders' equity) and the way the results of certain interests held by Acea SpA are calculated, especially with regard to water companies operating in Tuscany, Umbria and Campania. Acea continues however to act as the industrial partner within such companies and holds the right to appoint the Chief Executive Officer.

**The Group's scope of consolidation** as at 31 December 2014 included **33 companies**, which were consolidated in the financial statements according to the line-by-line method (see Table 5) and **additional 32 companies that were consolidated according to the shareholders' equity method**, including, as mentioned earlier, water companies operating in ATOs other than those located in Lazio as well as other minor companies operating in the water, energy, environmental and related service sectors.

**No significant changes were made** to the scope of consolidation during the year.

**CHART 4 – SHAREHOLDER STRUCTURE AT 31 DECEMBER 2014**



Source: CONSOB - Only shareholdings of 2% or greater are shown

**TABLE 5- BASIS OF CONSOLIDATION AT 31/12/2014  
(COMPANIES CONSOLIDATED USING THE LINE-BY-LINE METHOD)**

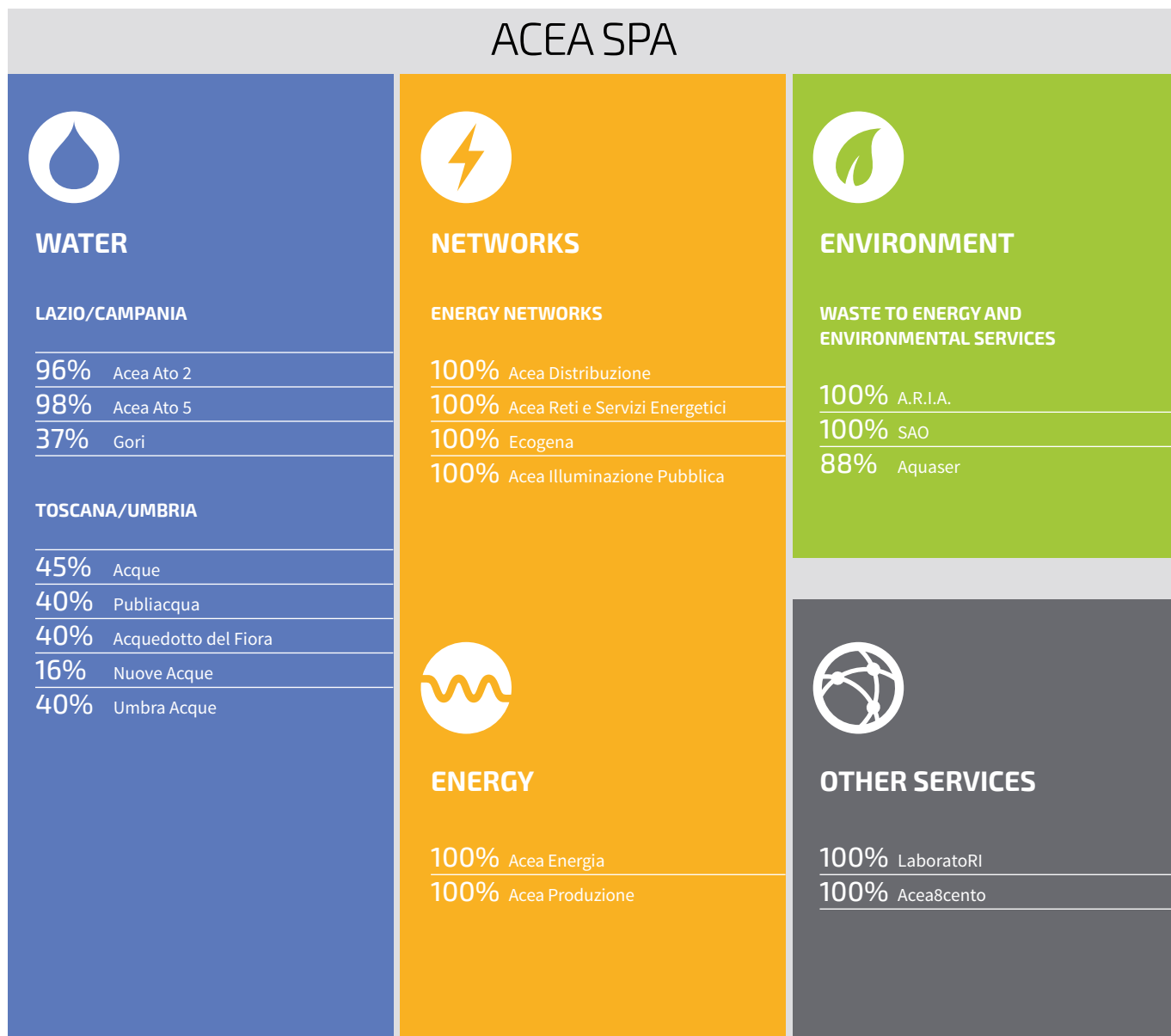
COMPANY NAME	REGISTERED OFFICE	EQUITY INTEREST HELD BY ACEA SPA	CONSOLIDATION METHOD
Acea Distribuzione SpA	Rome	100.00%	Line-by-line
Acea Ato2 SpA	Rome	96.46%	Line-by-line
Acea Reti e Servizi Energetici SpA	Rome	100.00%	Line-by-line
Acque Blu Arno Basso SpA	Rome	75.81%	Line-by-line
Acque Blu Fiorentine SpA	Rome	75.01%	Line-by-line
Ombrone SpA	Rome	99.51%	Line-by-line
LaboratoRi SpA	Rome	100.00%	Line-by-line
Acea Ato 5 SpA	Frosinone	98.45%	Line-by-line
Sarnese Vesuviano SpA	Rome	99.16%	Line-by-line
Crea SpA (*)	Rome	100.00%	Line-by-line
Crea Gestioni Srl	Rome	100.00%	Line-by-line
Gesesa SpA	Benevento	59.52%	Line-by-line
Lunigiana SpA (*)	Aulla (MS)	95.79%	Line-by-line
Aguazul Bogotà SA	Bogotà-Colombia	51.00%	Line-by-line
Acea Dominicana SA	Santo Domingo	100.00%	Line-by-line
A.R.I.A Srl	Terni	100.00%	Line-by-line
SAO Srl	Orvieto (TR)	100.00%	Line-by-line
Ecoenergie Srl (*)	Paliano (FR)	90.00%	Line-by-line
Aquaser Srl	Volterra (PI)	88.29%	Line-by-line
Kyklos Srl	Aprilia (LT)	51.00%	Line-by-line
Solemme SpA	Monterotondo Marittimo (GR)	100.00%	Line-by-line
S.A.M.A.C.E. Srl	Sabaudia (LT)	100.00%	Line-by-line
Acea8cento Srl	Rome	100.00%	Line-by-line
Acea Gori Servizi Scarl	Pomigliano d'Arco (NA)	69.82%	Line-by-line
Acea Illuminazione Pubblica SpA	Rome	100.00%	Line-by-line
Acea Produzione SpA	Rome	100.00%	Line-by-line
Acea Energia SpA	Rome	100.00%	Line-by-line
Ecogena SpA	Rome	100.00%	Line-by-line
Elga Sud SpA	Trani (BT)	49.00%	Line-by-line
Umbria Energy SpA	Terni	50.00%	Line-by-line
Acea Servizi Acqua Srl (*)	Rome	70.00%	Line-by-line
Innovazione Sostenibilità Ambientale Srl	Pontercorvo (FR)	51.00%	Line-by-line
Parco della Mistica Srl	Roma	100.00%	Line-by-line

(\*) Pending liquidation or liquidated.

**ACTIVITIES AND FUNCTIONS OF THE MAIN COMPANIES OF THE GROUP**

The Group's operational structure as at 31 December 2014 by business area is outlined in **Chart 5**. A brief description of the activities carried out by the main operating companies is provided below.

**CHART 5 – OPERATIONAL STRUCTURE AT 31/12/2014 (ACEA SPA'S DIRECTLY OWNED SUBSIDIARIES )**



## WATER

**Acea Ato 2 SpA** - This company manages the Integrated Water Service (IWS) in ATO 2 – Central Lazio (Rome and additional 111 municipalities across the Lazio region). The IWS engages in water collection, supply and distribution activities, sewerage system management and wastewater treatment. In addition to maintaining the plants and seeing to their upgrading, Acea Ato 2 protects and monitors the drinking water supply sources, manages monumental fountains, drinking fountains, fire hydrants and irrigation systems.

**Acea Ato 5 SpA** - This company manages the Integrated Water Service in the ATO 5 - Southern Lazio – Frosinone, comprising 86 municipalities.

**Ombrone SpA** - It holds equity interests in **Acquedotto del Fiora SpA**, acting as contractor for the Integrated Water Service in ATO 6 – Ombrone, in Tuscany, serving 56 municipalities in the provinces of Grosseto and Siena.

**Sarnese Vesuviano Srl** - This company holds equity interests in **Gori SpA**, acting as contractor for the Integrated Water Service in ATO 3 – Sarnese Vesuviano, in Campania, reaching 76 municipalities in the provinces of Naples and Salerno.

**Acque Blu Arno Basso SpA** - It holds equity interests in **Acque SpA**, acting as contractor for the Integrated Water Service in ATO 2 – Basso Valdarno, in Tuscany, serving 55 municipalities in the provinces of Pisa, Florence, Siena, Pistoia and Lucca.

**Acque Blu Fiorentina SpA** - It holds equity interests in **Publiacqua SpA**, acting as contractor for the Integrated Water Service in ATO 3 – Medio Valdarno, in Tuscany, serving 49 municipalities in the provinces of Florence, Prato, Pistoia and Arezzo.

**Crea Group** - It runs a number of water service management companies operating in the ATOs of Lucca, Terni, Rieti and Benevento.

**Intesa Aretina Scarl** - 35% owned by **Acea SpA**, it controls **Nuove Acque SpA** an Integrated Water Service management company in ATO 4 – Alto Valdarno, serving 37 municipalities in the provinces of Arezzo and Siena.

**Umbra Acque SpA** - It acts as contractor for the integrated Water Service in ATO 1 and 2 - Umbria, serving 38 municipalities, including Perugia and Assisi.

## NETWORKS

**Acea Distribuzione SpA** - This company runs high, medium and low voltage (HV, MV, LV) electricity distribution and metering services in the municipalities of Rome and Formello; it deals with the planning, design, construction and maintenance of high-voltage primary distribution plants and medium and low-voltage secondary distribution networks. It also runs the public and cemetery lighting systems in the municipality of Rome.

**Acea Illuminazione Pubblica SpA** - It runs the public functional, decorative, urban and artistic lighting service and engages in the development of the concerning systems.

**Acea Reti e Servizi Energetici SpA** - The company discharges duties on behalf of Acea Distribuzione regarding energy efficiency requirements (as pursuant to Ministerial Decree dated 20 July 2004); ensures the supervision of technological innovation with regard to energy saving; develops the use of renewable sources in the production of energy and carries out co-generation and tri-generation activities; and supplies energy services **in its capacity as an E.S.Co.** (Energy Service Company).

**Ecogena SpA** - It designs and builds high efficiency co-generation/tri-generation energy plants (CCHP, Combined Cooling, Heating and Power) for civil and industrial buildings. The company holds 49% of **EUR Power Srl**, a company currently being liquidated that engages in building and running co-generation/tri-generation plants and generating plants with heat pumps with geothermal integrations.

## ENERGY

**Acea Energia SpA** - This company engages in the sale of electricity and gas for the free market and the enhanced protection service. Acea Energia holds equity interests in **Elgasud SpA** and **Umbria Energy SpA**, both companies engaging in the marketing of energy, gas and related services and operating across Puglia, Basilicata and Umbria. It carries out energy management activities ensuring the supply of electricity, gas and fuels for the internal and external customers of the Group. It monitors target markets and enhances the environmental allowances linked to the plants' energy production (green certificates, GO, CO<sub>2</sub> emission allowances).

**Acea Produzione SpA** - This company engages in electricity and heat production operations through its own set of plants consisting of 7 hydroelectric plants and 2 thermoelectric plants, mainly located in Lazio.

## ENVIRONMENT

**A.R.I.A.** (Acea Risorse e Impianti per l'Ambiente) - This company operates in the environmental sector. It engages in the production of electricity and waste treatment through treatment and disposal plants. It runs two waste-to-energy plants located in Terni and San Vittore del Lazio and one RDF (Refuse Derived Fuel) plant at Paliano (Frosinone). Its subsidiary **SAO Srl** operates a waste selection and composting plant and relevant landfill in Orvieto.

**Aquaser Srl** - It engages in the recovery and disposal of sludge arising from wastewater treatment and integrated water operations. The following companies are part of the Aquaser Group: **Kyklos Srl**, **Solemme SpA** and **S.A.MA.CE. Srl**, engaging in the waste composting and sewage sludge business, and **Innovazione Sostenibilità Ambientale Srl** (ISA), operating in the logistics and transportation of sludge.

## OTHER SERVICES

**Acea8cento Srl** - It is responsible for handling customer care operations for the Acea Group companies, with special emphasis on remote contact channels.

**LaboratoRI SpA** - It provides laboratory, research and development, reporting and consulting, engineering (design and project management) services mainly in the water and environmental sector for Acea Group companies as well as the external market. The company supplies technical and scientific support to further the Group's growth at a national and international level.

## GENERAL ECONOMIC INDICATORS

The results achieved in 2014 met the business goals as expected, bearing out the Company's competitiveness. All main indicators show an uptrend compared to 2013: **the EBITDA increased** from 675.4 million euros to 717.7 million euros (+6.3%), while **EBIT went up** from 363.2 million euros to 390.4 million euros (+7.5%),

totalling a **group profit in the region of 162 million euros** (+14.4% over 2013).

It should be stressed that as a result of the application of the new accounting standards, 2013 figures were restated to ensure comparability with the scope pertaining to FY 2014.

**TABLE 6 - ACEA GROUP BALANCE SHEET AND P&L HIGHLIGHTS (2013-2014)**

(€/M)	2013 (RESTATEd)	2014
<b>Net revenues</b>	<b>3,289.0</b>	<b>3,038.3</b>
Operating costs	2,644.0	2,339.3
Labour costs	238.3	229.5
External costs	2,405.7	2,109.8
Income/(Charges) from non-financial investments	30.3	18.8
<b>Gross operating margin (EBITDA)</b>	<b>675.4</b>	<b>717.7</b>
<b>Operating income (EBIT)</b>	<b>363.2</b>	<b>390.4</b>
Financial transactions	(99.3)	(101.2)
Transactions on equity investments	(4.8)	0.5
<b>Pre-tax profit</b>	<b>259.2</b>	<b>289.8</b>
Income taxes	105.8	120.9
<b>Net profit</b>	<b>153.4</b>	<b>168.9</b>
Profit/loss pertaining to minority interests	11.4	6.5
<b>Group net profit</b>	<b>141.9</b>	<b>162.5</b>

Note: Following changes resulting from the application of the new accounting standards, balance sheet and profit and loss figures at 31/12/2013 were restated for comparative purposes.

**Consolidated revenues in 2014** totalled **3,038.3 million euros** (3,289 million euros in 2013). In the **energy and gas sectors** revenues stood at 2,101.4 million euros (-13.1%) and 59 million euros (-7.5%), respectively. Revenues from certificates (**white certificates<sup>8</sup>**, **green certificates<sup>9</sup>** and **CO<sub>2</sub><sup>10</sup> emission allowances**) showed an increase from 16.4 million euros to **21.6 million euros** (+31.7%), mainly due to the green certificates accrued following the repowering of Salisano and Orte hydroelectric plants.

**Revenues from public and cemetery lighting** stood at **74.8 million euros** approximately, showing a 9.3% increase (68.4 million euros in 2013). Revenues from **environmental services** (waste treatment, landfill management, RDF and

compost production) stood at about **39.4 million euros** (+8.2%).

Revenues from **water management** in Italy and abroad showed a balance of **588.1 million euros**, increasing by 7.6% compared to 546.3 million euros in 2013, such increase being chiefly due to the positive pricing update and balances paid to Acea Ato 2 and Acea Ato 5.

**Gross operating margin (EBITDA)** stood at **717.7 million euros<sup>11</sup>** (+6.3%), with the contribution of all industrial areas and the management efficiency actions taken during the year playing a role to this end. Excluding the corporate area, the following areas contributed to total revenues:

- **Water** industrial business (41%), with 292.2 million euros (280.8 million euros in 2013). As mentioned earlier, supporting this uptrend was AEEGSI Water Tariff Method (MTI, Metodo Tariffario Idrico) applicable to companies;
- **Network** industrial business (35%), with 253.3 million euros (257.3 million euros in 2013);
- **Energy** industrial business (15%), with 111.6 million euros (91.7 million euros in 2013) following an increase in energy margins arising from the sales area;
- **Environment** industrial business (8%), with 54.4 million euros following a better performance of plants in Terni and San Vittore del Lazio (48.4 million euros in 2013).

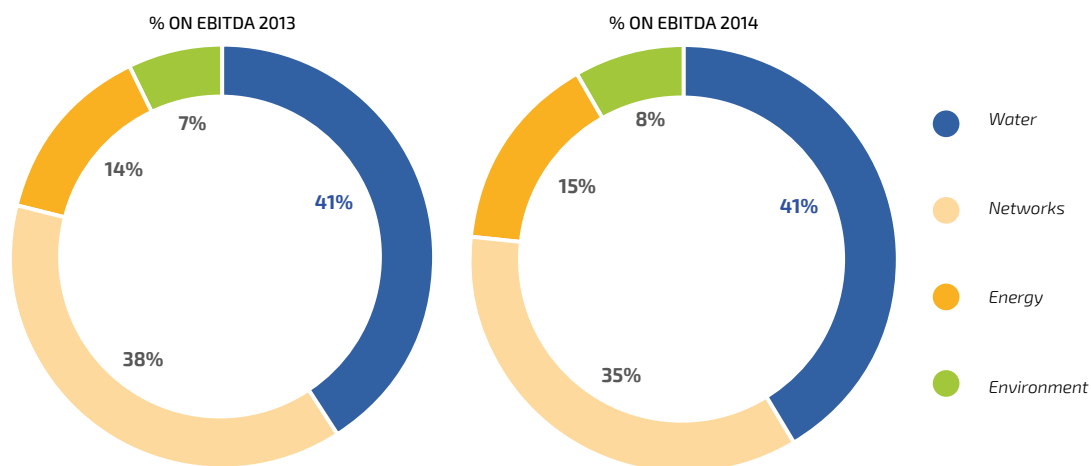
8 The Ministerial Decrees dated 20 July 2004 introduced the so-called white certificates (EEC, Energy Efficiency Certificates) into Italian legislation, fixing the annual primary energy saving goals that every energy and natural gas supplier is required to achieve through the implementation of energy efficiency schemes. The inter-ministerial decree dated 28 December 2012 sets the goals to be reached up to 2016, transferring the responsibility for the energy-saving certification from AEEG to GSE.

9 Until 2012, the green certificates were the main incentive tool for electricity generated from renewable sources (excluding photovoltaic energy) as pursuant to the provisions under Legislative Decree 79/99 (known as "Bersani Decree"). This model was superseded by the Decree of the Ministry for Economic Development No. 6/6/2012 implementing Article 24 of Italian Legislative Decree No. 28/11. The subsidy for energy generated from plants that (i) are fuelled by the above-mentioned renewable sources, (ii) have a nominal power greater than fixed threshold values, and (iii) have been operating since 1 January 2013 is granted according to Dutch auctions managed by GSE. Auction procedures set at any rate a value of the incentive, which is determined taking into account the need to recoup the investments made.

10 The Emission Trading System (ETS - Directive 2003/87/EC) is an administrative tool in force at the EU level aimed at promoting a reduction in greenhouse gas emissions (CO<sub>2</sub>) in industrial productions. Launched in 2005, the EU ETS has now reached its third stage (started in 2013), which is expected to reach completion in 2020. According to the current mechanism, the production plants that are covered by the Directive are required to purchase permits (through an auction procedure) to issue CO<sub>2</sub> (allowances) in the EU. The transition to the auction system is gradual and it works in such a way as to favour low-carbon productions, i.e. those that need less emission permits and, as a result, incur lower costs to purchase them. As a whole, the ETS covers 45% of the total emissions the 28 EU Member Countries are responsible for.

11 Revenues from water operations abroad accounted for about 1.3% of water-related total revenues and about 0.2% of the Group total revenues. A brief description of the operations abroad is provided under Operations Abroad.

CHART 6 – CONTRIBUTION OF THE BUSINESS AREAS TO OVERALL EBITDA (2013-2014)



EBIT stood at **390.4 million euros** (+7.5% compared to 363.2 million euros of the previous financial year). EBIT is determined by the value of **amortisation, provisions and depreciation**,

which stood at 327.3 million euros (+4.8% compared to 312.2 million euros in 2013). Such an increase was due to several trends of its specific items, including on the one hand an increase in

doubtful receivables (from 79.6 million euros to 110.2 million euros in 2014) and, on the other hand, a reduction in provisions (from 37.8 million euros to 13.6 million euros in 2014).

TABLE 7 - ACEA GROUP BALANCE SHEET DATA AND NET FINANCIAL POSITION (2013-2014)

(€'000s)	31/12/2013	31/12/2014
Non-current financial assets (liabilities)	2,460	1,710
Intergroup non-current financial assets (liabilities)	32,328	32,580
Payables and other non-current financial liabilities	(2,360,907)	(3,040,712)
<b>Medium/long-term net financial position</b>	<b>(2,326,119)</b>	<b>(3,006,422)</b>
Cash on hand and securities	563,066	1,017,967
Short-term amounts due to banks	(371,344)	(58,161)
Current financial assets (liabilities)	(139,566)	(103,944)
Intergroup current financial assets (liabilities)	25,323	61,460
<b>Short-term financial position</b>	<b>77,480</b>	<b>917,321</b>
<b>Total net financial position</b>	<b>(2,248,640)</b>	<b>(2,089,101)</b>
Shareholders' equity	1,406,828	1,502,391
Invested capital	3,655,467	3,591,492

The results for the year had a **positive impact on the profitability ratios** of both equity capital (ROE) and invested capital (ROIC).

TABLE 8 - KEY PROFITABILITY INDICATORS (2012-2014)

	2012	2013	2014
<b>Return on equity capital</b>			
ROE = Result for the year after taxation/shareholders' equity	5.9%	10.9%	11.2%
ROIC pre-tax = Operating income (EBIT)/invested capital	7.7%	9.9%	10.8%

The **national political** and **regulatory** systems affect the background in which utilities like Acea operate.

With regard to the former, **following the policies outlined by the Government** in 2014 within the general picture of public spending reduction and eventually reflected in the 2015 Stability Law (Law No. 190/2014) to drive the Country's return to competitiveness and make the economic system more attractive, **utilities need to revisit their future role** in respect of both innovation and development drivers based on strategic analyses of the relevant territories. In this connection, for example, the input shared by some industry companies has strengthened the **Utility "Power Game"** concept, that is a **movement for the consolidation, through mergers and combinations, of companies engaging in public utility services**, leading to a lower number of industry providers who are considered as suitable from a size and financial perspective, strategically more integrated and adequately equipped in terms of technology in order to respond effectively to highly variable demand patterns. In conjunction with the effort of public utilities, **a new governance of the industry's public institutional level** (i.e., the entities governing Optimum Areas of Operation - ATOs) is also anticipated, such governance being aimed at guaranteeing the conditions required in order that the government bill (Legislative Decree No. 133/2014 known as "Sblocca Italia") may be met.

As to the regulatory background, where **AEEGSI plays a pivotal role** in governing both the energy and water sectors, a number of significant measures adopted in 2014 should be highlighted. Firstly, reference is made to the publication of the **2015-2018 Strategic Plan**<sup>12</sup>, which was reviewed and subject to specific discussions held with the stakeholders<sup>13</sup> in November 2014. The scenarios outlined in the strategic planning document are crucial for the future set-up of the network and market infrastructure of the energy and water sectors. For examples, the following focus areas are identified: making networks smarter and developing electricity storage systems; consumption measurement systems; creating a background to attract investments in the water sector; mechanisms to pursue water

efficiency and safeguard contractual relationships between users and service providers; ensuring water access for individuals facing hardships. With regard to specific regulatory aspects pertaining to the **electricity sector**, AEEGSI took action by defining, after consultation, the requirements of the next **Bill 2.0**<sup>14</sup>: a clearer, more concise and understandable billing document, encouraging electronic issue through a number of incentives, including discounts. Consistent with Legislative Decree No. 102/2014<sup>15</sup>, the above action aims to increase the consumers' ability to understand and adequately interact with the operators, developing positive market patterns from a demand and supply perspective. Actions taken by AEEGSI in the **water sector** were aimed at strengthening the regulatory system. More specifically, actions were undertaken on some system-related aspects, including the **contractual quality of the single segments that make up the service** so that users may rely on consistent levels across the national territory<sup>16</sup>; the promotion of the best service delivery by **identifying cost-effective solutions** capable of defining appropriate operational enhancement criteria<sup>17</sup>.

Based on the above insights, among other things, Acea reconsidered its own business and growth path. The **2014-2018 Business Plan** approved by the Board of Directors on 10 March 2014<sup>18</sup> **outlines the businesses' future lines of development**, namely playing a greater role in the **industrial waste treatment** sector; improving the level of satisfaction of **electricity market** customers, both with regard to services delivered and relations with the company, including through a **social** orientation of technological applications; strengthening its role in the **national water sector** by gaining a stronger foothold in the areas covered and focusing on **IT management-related innovations**; pursuing the mission to become a **smart utility** in the management of electricity networks.

The Business Plan states more than **2 billion euros of investments** entirely allocated to network and plant modernisation, mainly in the water and electricity areas.

<sup>12</sup> Resolution No. 528/2014.

<sup>13</sup> Upon acknowledging the need for accountability and transparency among key innovative functions, AEEGSI has defined a set of guidelines (Resolution No. 211/2014) that are instrumental in winning stakeholder involvement, whereby appropriate decision steps and criteria are set out in order to ensure the broadest participation in and input to AEEGSI provisions from all parties concerned. The first application of such guidelines concerned the 2015-2018 Strategic Plan itself.

<sup>14</sup> Resolution No. 501/2014.

<sup>15</sup> Resolution No. 142/2014 and consultation document 665/2014.

<sup>16</sup> Implementing Directive 2012/27/EU on Energy Efficiency.

<sup>17</sup> Resolution No. 374/2014.

<sup>18</sup> See corporate website at [www.acea.it](http://www.acea.it), Shareholders section, 2014 Presentations.



KEY LINES OF ACEA 2014-2018 BUSINESS PLAN	
BUSINESS AREA	STRATEGY
<b>ENVIRONMENT:</b> waste-to-energy and environmental services	<ul style="list-style-type: none"> <li>• Completion of the projects already launched and upgrading of the capabilities for waste energy recovery in the areas covered</li> <li>• <b>Possible development initiatives through external actions (mergers and acquisitions) fostering growth in the central and northern regions of Italy</b></li> </ul>
<b>ENERGY:</b> generation, supply and sale of electricity and gas	<ul style="list-style-type: none"> <li>• Expanding the customer base on the energy and gas free market</li> <li>• Completing modernisation and efficiency projects of (mainly hydroelectric) power plants</li> <li>• <b>Improving the quality of services delivered and customer relations by designing high-technological content services (social networks, CRMs, self-service channels, billing processes and systems)</b></li> </ul>
<b>WATER:</b> integrated water system (aqueduct, distribution, treatment, sewerage)	<ul style="list-style-type: none"> <li>• Increasing leadership on the Italian water market by consolidating, among other things, <b>operations across the areas covered by Acea</b></li> <li>• Investments aimed at modernising networks and improving treatment plants</li> <li>• <b>Adopting automation processes and state-of-the-art technologies in operational management</b></li> </ul>
<b>NETWORKS:</b> power distribution, energy efficiency, technological innovation, public lighting system service	<ul style="list-style-type: none"> <li>• Carrying on network modernisation activities with a <b>view to becoming a smart grid serving a smart city</b></li> <li>• <b>Public lighting energy efficiency schemes through the adoption of LED systems</b></li> </ul>

BUSINESS GUIDING LINES IN 2014
<p><b>ENVIRONMENT</b></p> <ul style="list-style-type: none"> <li>• SAO started revamping operations at Orvieto waste treatment plant as well as enhancement and upgrading work in the adjoining landfill to both increase capacity and service life, ensuring service continuity while curbing prices to the benefit of the municipalities and saving the natural resources to be used as technical material;</li> <li>• As part of a dialogue with the local authorities that discharge authorisation formalities representing public interests, SOLEMME continued to carry out administrative and technical activities for the construction of a new organic waste anaerobic digestion and composting plant, with special reference to sludge from civil wastewater treatment, as part of the expansion project of the site located in the municipality of Monterotondo Marittimo (Grosseto).</li> </ul>
<p><b>ENERGY</b></p> <p><b>GENERATION</b></p> <ul style="list-style-type: none"> <li>• Energy generated through waste-to-energy processes covered 35.5% of the total amount generated by the entire thermoelectric and renewable plant base of the Group. The waste-to-energy plants of A.R.I.A. showed a 10% increase in generation compared to the previous year;</li> <li>• Energy generated from renewable sources covered 80% of total production (647 GWh out of 808 GWh).</li> </ul> <p><b>SALES</b></p> <ul style="list-style-type: none"> <li>• Acea Energia exceeded 500,000 units (pick-up points) governed by contracts on the electricity and gas free market, showing an increase of almost 26% compared to 2013.</li> </ul>
<p><b>WATER</b></p> <ul style="list-style-type: none"> <li>• The Water Tariff Method (MTI, Metodo Tariffario Idrico) became fully operational for water companies: AEEGSI reviewed and approved the new 2014-2015 price recommendations - based on the resolutions of the relevant public jurisdictional bodies - applicable to the majority of the Group's companies (Acea Ato 2, Acque, Publiacqua, Acquedotto del Fiora, Umbra Acque). According to market consensus, the new regulatory system will allow Acea to take a leading role in the industry at a national level over the next few years.</li> </ul>
<p><b>NETWORKS</b></p> <p><b>DISTRIBUTION</b></p> <ul style="list-style-type: none"> <li>• Acea Distribuzione plays a leading role in the RoMA (Resilience Enhancement of Metropolitan Area) and Panoptesec projects, both being technological development initiatives conducted by leading universities, research centres and ICT companies under the aegis and with the contribution of national and Community institutions. The above projects are instrumental in having the networks reach such advanced development levels as to allow multiarea services to be delivered (mobility, personal safety, land protection, etc.) while ensuring protection against risks and threats arising from cybercrime;</li> <li>• Installations of remotely-managed digital metres for low-voltage customers continued, now covering 98.2% of the customer base (i.e., 1.6 million digital metres).</li> </ul> <p><b>COGENERATION (COMBINED HEATING AND POWER GENERATION)</b></p> <ul style="list-style-type: none"> <li>• Work for the construction of the new trigeneration plant for the "Europarco" executive complex in Rome continued, while the energy service of the trigeneration plant for the theme park "Cinecittà World" at Castel Romano was launched.</li> </ul> <p><b>PUBLIC LIGHTING</b></p> <ul style="list-style-type: none"> <li>• The application of LED technology is spreading considerably: of the 1,801 new lighting units installed, including artistic lighting, 1,754 (97%) are fitted with LED technology. The plan for the gradual switching of Rome public lighting to LED technology was also drafted.</li> </ul>

# STRATEGY AND SUSTAINABILITY

## ACEA: VALUES AND CONTRIBUTION TO SUSTAINABILITY

Both the Group's business (i.e., providing services of general interest) and the extent of the operating timeline have caused Acea to become more aware of the social role it plays. Hence, sustainability and corporate social responsibility are typically embedded in Acea's identity, with the Group

being committed to reflecting them in its core values and consistent behavioural guidelines, in the provision of management and engagement systems for the stakeholders and in the close monitoring of performance, all with a view to accountability.

TABLE 9 - ACEA TOOLS FOR SUSTAINABLE DEVELOPMENT AND SOCIAL RESPONSIBILITY

	1998 2000	2001 2003	2004 2006	2007 2008	2009 2011	2012 2013	2014
VALUES, RULES AND PROCEDURES	Service Charter	■	■	■	■	■	■
	Company mission and environmental policy	■	■	■	■	■	■
	Regulations for protecting men and women's dignity	■	■	■	■	■	■
	Diversity management charter - Diversity Committee						■
	Quality Policy	1999 ■	■	■	■	■	
	Corporate Governance Code	■	■	■	■	■	■
	Ethics Committee		2003 ■	■	■	■	■
	Charter of Values		2001 ■	■	■	■	
	Code of Ethics for Tenders		2003 ■	■	■	■	■
	Code of Ethics			2004 ■	■	■	2012 ■
	Organisational, management and control Model (ex Legislative Decree No. 231/01)			2004 ■	■	■	■
	SGSL (Guidelines UNI-INAIL) - Safety policies			2005 ■	■	■	
	Quality and environmental certifications and EMAS	■	■	■	■	■	■
	Company protection Policy					■	■
	OHSAS and Safety Policy					■	■
Quality, Environmental, Safety and Energy Policy						■	
REPORTING	Social and Environmental Reports	■	■				
	Sustainability Report		GRI 2002 ■	GRI-G3 2006 ■	■	GRI-G3 and Utility Sector ■	GRI-G3.1 and Utility Sector ■
	CoP reporting for Global Compact					■	■
LISTENING	Customer satisfaction	■	■	■	■	■	■
	online listening		■	■	■	■	■
ACCESS AND RATINGS	Access to WEC			2005 ■	■	■	■
	Access to CSR manager network			2006 ■	■	■	■
	Access to Global Compact				2007 ■	■	■
	Sustainability Rating		■	■	■	■	■

Acea pays attention to the initiatives and signals coming from the **institutional**, national and international context in respect of sustainability and corporate social responsibility matters, as they provide a baseline and guiding lines for such issues. In 2014, special emphasis was placed on the completion of the regulatory process, which culminated with the approval by the European Union Council, of **Directive on disclosure**

**of social and environmental information and on diversity empowerment in the composition of administration and control bodies** (2014/95/EC). This new regulation, which governs and enhances non-financial corporate disclosure, **places Europe at the most advanced levels in light of the importance ascribed to ESG** (*Environmental Social Governance*) issues for the purposes of reaching

a sustainable growth. Bearing out the increasing significance that corporate social responsibility is gaining, other initiatives have surfaced underscoring the cross-cutting nature of the issue and its significance in the European context: **consultation on CSR strategy**, implemented by the EU, and future commitments; **Tender and Licence Directives** (see relevant boxes).

## PUBLIC CONSULTATION ON THE RESULTS AND FUTURE ROLE OF CSR WITHIN THE EUROPEAN UNION

From April to August 2014, the European Commission held **public consultations** to hear the opinions of the parties concerned about the outcome of the 2011-2014 CSR Strategy and the role such Strategy should play in the future. In view of the CSR contribution to the competitiveness of the Community entrepreneurial system and to the creation of shared value, the enquiry prompted by the Commission meant to explore **three significant areas** in particular: the role of the Commission and **the identification of the most significant entities with whom to interact to develop the topic; the effectiveness of the European initiatives and actions** aimed at promoting and developing CSR; **future challenges** for a European policy on CSR, including the role of the Commission and the degree of importance of the topic for the future of the EU economy.

Based on the outcome of the consultations, the Commission will define preparatory work for the plenary session of the Multistakeholder Forum on CSR in order to outline the future Community policy on the subject.

## NEW TENDER AND CONCESSION DIRECTIVES

Public contracts generate about 18% of the European GDP. In March 2014, the EU issued new directives on Public Tenders and Concessions, taking on an economic as well as social perspective.

Indeed, the text of the reform governing public contract awards underscores the role they play in the **pursuit of Community policies pertaining to sustainable development, environmental protection, social cohesion and promotion of the economy** to the benefit of the broadest base of market operators, ensuring compliance with the highest standards of workers' protection.

Express reference is made to the strategic role of tenders to (i) stimulate innovation and efficiency in the allocation of public financial resources and (ii) pick up the main social challenges, thereby promoting a sustainable economic growth.

In the light of the above, the regulatory framework contemplates social and environmental aspects in the qualification, assessment and award stages of tenders, as well as during the actual execution phase.

As expected, by 2016 the single Member States will be required to reflect supranational regulations in their domestic legislations, translating the aforesaid novelties in line with the European principles, thereby contributing to the spreading of ESG criteria and social responsibility principles across the domains of civil organisation.

## SHARING CORPORATE SOCIAL RESPONSIBILITY TOPICS

In Acea, reflection on the three sustainability dimensions (economic, social and environmental) and their possible future scenarios is also encouraged through the participation in expert networks, workgroups, think tanks and projects organised by academic circles, civil society, institutions or business entities.

The main projects in which the Company took part in 2014 include:

- Renewal of its support to the **CSR Manager Network** created by the Altis-Università Cattolica of Milan, which gathers Italy's most active companies in the field of sustainability, and participation in in-depth meetings and webinars organised during the year;
- Renewal of its support to the **Global Compact**, actively participating in meetings and workshops organised by the Italian Network and participating in working groups on Reporting, Environment, Supply Chain and Anti-corruption. In detail, in 2014 the Suppliers' Qualification and Rating Unit, together with the CSR and Sustainability Unit, continued to be part of the **Sustainable Supply Chain** Workgroup. Acea is a supporting member of the pilot project, which involves the definition of a self-assessment questionnaire and development of a portal - **TenP Sustainable Supply Chain Self-Assessment Platform** (see relevant box in *Suppliers*);
- Participation, either as a sponsor or a speaker, in postgraduate masters regarding sustainable development and corporate responsibility management: master in **Energy Management** organised by the MIP School of Management of Milan Polytechnic; master in **Environment, Energy Efficiency and Smart Cities** organised by Sole 24 Ore Business School; master in **Management and Corporate Social Responsibility** organised by the Pontifical University San Tommaso d'Acquino - Angelicum;
- Attending major conventions and workshops on the different topics pertaining to sustainability.
- With regard to health in the workplace, in 2014 Acea took part in the European initiative **Together for the Prevention and Management of Work-related Stress**, participating in the **Healthy and Safe Working Environments** campaign (see detailed box in *Safeguarding Health and Security in the Workplace* under **Human Resources**). The Company also took part in projects sponsored by Universities aimed at connecting **the labour market with the youth** and actively participated in many initiatives related to technological innovation, the improvement of the services delivered, welfare across the territory and the **promotion of a development model based on a sustainable use of water and energy resources**. The Company also takes its stance on social-related matters, supporting initiatives **on the culture of solidarity and non discrimination**. For example, in 2014 special attention was paid to urban suburbs and an event called **Never again** was held at the eve of the UN Day for the Elimination of Violence against Women (also see *Institutions and the Company, Customers and Community and Human Resources*).

Towards the end of 2014, a **Multistakeholder Focus Group** was planned and later held in January 2015 at Acea SpA Headoffice, where the Company met with the representatives of the main stakeholders' classes to discuss, identify and review focus topics and the expected disclosures connected with social and environmental reporting, as well as sharing insights on how to improve Acea's sustainability disclosure. The initiative was undertaken with a view to increasingly calibrating CSR activities as a function of the "materiality" requirements stated by the stakeholders, as appropriately construed consistent with business goals and strategic policies.

The Company is subject to **assessment with respect to its CSR performance**, receiving awards appropriate to the level reached (also see *Shareholders and Investors*, under **Ethical Finance**). More specifically, the Group was awarded with **CEEP CSR Label 2014-2015** as part of the initiative promoted by the European Commission and the CEEP (European Centre of Employers and Enterprises Providing Public Services) aimed at supporting and encouraging the development of CSR practices.



**ACEA**  
was awarded the  
**CEEP-CSR Label**  
for 2014-2015

*This label certifies that ACEA highly integrates CSR commitments into its business operation.*

Hans-Joachim RECK  
CEEP President

Valeria RONZITTI  
CEEP General Secretary

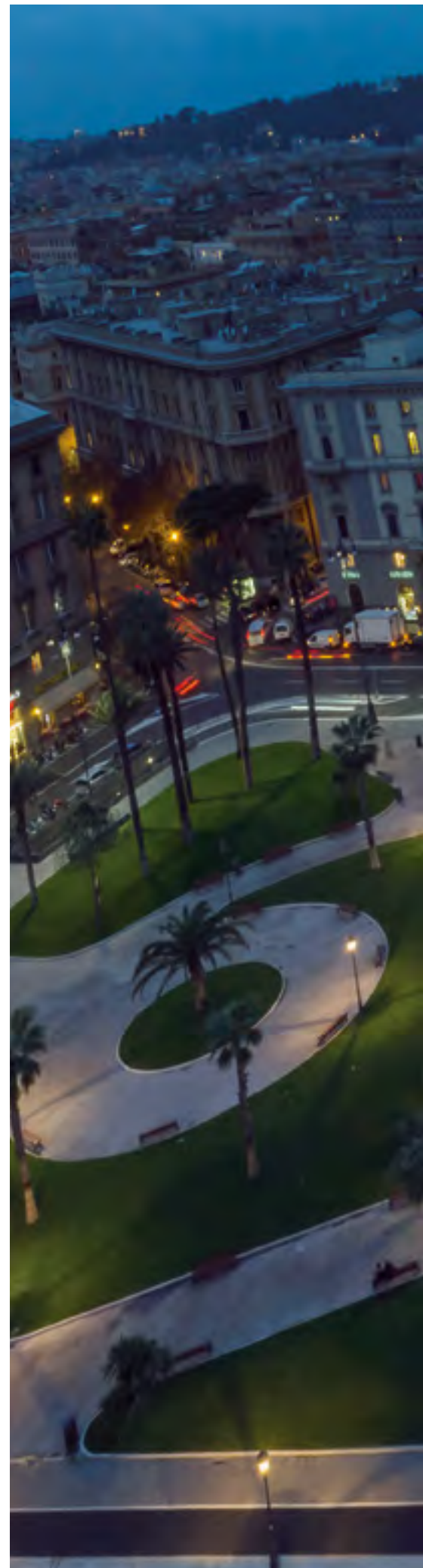
Received in Milan, Italy, 29<sup>th</sup> October 2014

Moreover, in 2014 the Company took part in the **third edition of the Top Utility Award**, a project first launched in 2012 under the high patronage of the President of the Italian Republic with the aim to assess **the Italian Public Utility system from an integrated economic, financial, social and environmental sustainability perspective**. The review was extended to **the top 100 Italian utilities in terms of total sales**, including both public and private businesses. It relied on **182 criteria** to analyse their financial position over the past three years, operations, communication, social and environmental sustainability, relationships with the consumers and local areas, technological assets and innovation. The purpose of the review was to provide general information about the industry to companies, executives and consumers, enabling the latter to evaluate the changes and reward the companies with above-average performances. The **2014 "absolute" award** was granted to **Acque SpA**, Acea Group's water company engaging in Basso Valdarno that reached the final with Aimag, Hera, Marche Multiservizi and Nuove Acque. **Acea's name also appeared among the five finalists for the "sustainability" category** and, for the first time, **in the "communication" category** as well.

In May 2014, the results of the sixth edition of the **CSR Online Awards** research conducted by Lundquist and referring to 2013 were published. Based on a new assessment method devised with the input of 350 CSR experts, the analysis reviewed **online communication** of most European and Italian companies regarding **corporate social responsibility, sustainability and involvement of stakeholders through digital channels** relying on seven pillars (concreteness, thoroughness, overall integration, distinctive nature, promptness, user-friendly presentation of information and use of social media). Among the 100 companies reviewed, Acea ranked 30th, scoring 22.7 points.



Rome, Piazza Cavour lit up, in the background the Prati district seen from the Supreme Court Building





**2014-2018 SUSTAINABILITY PLAN AND MEDIUM-TERM GOALS**

The infographics shown provide an overview of the **2014-2018 Sustainability Plan: the targets** the Group is pursuing in relation to the stakeholders' interests and **medium-term goals**. The aforesaid goals, which were updated in the light of and are consistent with the 2014-2018 Business Plan (see *Outlook and Strategic Plan*), were **redefined** in 2014 **by the heads of the industrial areas and**

**Divisions/Companies involved** and then **approved by the Acea SpA Chief Executive Officer and Chairman**. Below is a diagram outlining again the goals, with the **main actions taken during the year being placed next to them**. A more detailed description of such actions is given in the *Sustainability Report* sections.



**MEDIUM-TERM GOALS (2014 – 2018)**

- Reach and exceed the changing standards for technical and commercial quality, set by the AEEGSI.
- Improve the layout of the energy bill. Reduce service-desk waiting time. Gain customer loyalty.
- Improve performance of the digital electricity meters, for fair and quick billing of consumption.
- Organise on-line access to information about the plants with highest environmental impact.
- Develop customer/citizen awareness about the correct use of water and energy resources.
- Plan generous sponsorships, in keeping with Point 8.1 of the "Communication Plan" Group executive rule.
- Support artistic, cultural and sports initiatives for the benefit of the community, with special attention to the suburbs. Introduce systemised pre and post-event evaluation of Group sponsorships.
- Make on-line content more complete, timely and easier to access.
- Launch the SAP "Workforce Management" (WFM) project, with application of advanced IT processes to operations management, for optimisation of resource use and reduction in task times.
- Improve the quality of customer service and relations, through development of high-technological content in the services (digital and multichannel)
- Provide a vendor rating system for the operations of the different business areas.
- Provide a supply chain monitoring tool for GRI-G4 reporting.
- Develop Green Procurement for at least 50% of goods categories included in the NAP.
- Develop a simpler and more efficient supply process for works and services: the "Single Tender" Project.
- Extend the culture of merit to the entire company population, and the tools for its evaluation.
- Promote the values of change and innovation as a way of company life, increasing the engagement and contribution from all individuals.
- Develop professional development and training paths, including through intra-group mobility, which improve Group know-how: capable of meeting Acea's new challenges.
- Apply an industrial relations model that enhances the prerogatives of the Trade Unions to take an active part in the Group's paths towards change.
- Develop innovative organisational interventions for optimal performance and synergies.
- Create a working environment and organisational culture that encourage merit and diversity.

# PEOPLE



## SHAREHOLDERS AND INVESTORS

- We will ensure our governance system meets the highest principles of transparency and fairness.
- We will support our management in the identification and assessment of business risks.



## THE COMPANY

- We will ensure that Group companies are at the forefront of technological, process, and product innovation.



## ENVIRONMENT

- We will develop enhanced methods of environmental management.

- Monitor the function and sufficiency of the Internal Control System. Confirm adherence to legislation, internal procedures and values.
- Regularly update the list of main risks to Acea and its subsidiaries, through application of corporate risk self-assessment (CRSA).
- Support management in identifying improved controls for mitigation of risks and prevention of fraud.
- Provide financial communication geared to the markets, respecting principles of fairness, transparency and equal information among all interested parties (the general public, analysts, Italian and foreign investors).
- Introduce "non-financial" information in the Acea Annual Financial Report (European Union Directive No. 95, 22/10/2014)

- Develop electric transport in the City of Rome.
- Modernise the electricity networks for correct function in response to the evolving demands of the system and markets, and for improved reliability, transport capacity and efficiency. Apply new technologies as part of the modernisation.
- Participate in EU-initiated projects for technological innovation.
- Centralise and standardise the IT hardware and software solutions of the Group companies.

- Maintain and consolidate all management systems certified under ISO 14001 (Environment) and ISO 50001 (Energy) standards, integrated with ISO 9001 (Quality) and Safety (BS OHSAS 18001) systems standards. Pursue the extension of these systems to all Group companies.
- Begin implementation of Social responsibility management system SA 8000, in Acea SpA.
- Define the guidelines for the organisation of company events with low environmental impact, in keeping with ISO standard 20121.
- Reduce consumption by:
  - 10% for internal use of drinking water;
  - 3% for internal use of electrical energy
  - 5% for heating and vehicle operation.
- Reduce the "real losses" of water in the water distribution networks by 1%.
- Reduce the consumption from Joule effect (technical loss in networks) by 1.5% in the Rome electrical distribution network.
- Rome public illumination network: develop massive installation of LED lights within 2020.
- Monitor CO<sub>2</sub> emissions from processes, for estimation of the carbon footprint and planning of potential interventions.
- Carry out an energy diagnosis audit for the main Acea SpA and Acea Distribuzione buildings (operations centres).

## MEDIUM-TERM (2014-2018) SUSTAINABILITY GOALS AND MAIN ACTIONS IN 2014

### CUSTOMERS AND COMMUNITY

#### MEDIUM-TERM GOALS (2014-2018)

#### ACTIONS IN 2014

<ul style="list-style-type: none"> <li>Meeting and exceeding technical and commercial quality standards as regulated by the Authority for electricity, gas and water system (AEEGSI).</li> </ul> <p><b>WATER AREA - Acea Ato 2</b></p>	<ul style="list-style-type: none"> <li>Commercial quality goals monitored on a regular basis through operational and executive dashboards.</li> </ul>
<ul style="list-style-type: none"> <li>Improving the layout of the electricity bill, reducing waiting time at counters, retaining customers</li> </ul> <p><b>ENERGY AREA - Acea Energia</b></p>	<ul style="list-style-type: none"> <li>A new bill for the enhanced protection market was launched.</li> <li>New web functions were introduced for the enhanced protection and free markets.</li> <li>Project promoting the electronic bill service.</li> <li>Rewarding the most virtuous customers with discounts in the electricity bill, physical rewards, coupons, discounts at partners, etc.</li> </ul>
<ul style="list-style-type: none"> <li>Improving digital meter performances to ensure accurate and timely billing of electricity consumption</li> </ul> <p><b>NETWORK AREA - Acea Distribuzione</b></p>	<ul style="list-style-type: none"> <li>The process review continued in order to achieve a greater number of accessible readings.</li> <li>Data access for electricity selling companies improved, with a dedicated function being available on the website.</li> <li>Improving remote control systems of electronic metres.</li> </ul>
<ul style="list-style-type: none"> <li>Organising online data access and display referring to the plants with the highest environmental impact</li> </ul> <p><b>ENVIRONMENTAL AREA - A.R.I.A.</b> <b>ENVIRONMENTAL AREA - SAO</b></p>	<ul style="list-style-type: none"> <li>Re-arrangement of Acea website section dedicated to online access to data on emissions.</li> <li>Installation of monitors in the municipality of San Vittore del Lazio.</li> <li>Publication of environmental monitoring results of SAO landfill in Orvieto on ARPA Umbria website (<a href="http://www.arpa.umbria.it">www.arpa.umbria.it</a>) and EMAS Environmental Statement on Acea website.</li> </ul>
<ul style="list-style-type: none"> <li>Making customers/citizens aware of the proper use of water/energy resources</li> </ul> <p><b>PARENT COMPANY – External Relations and Communication Division</b></p>	<ul style="list-style-type: none"> <li>The “Case dell’acqua” (Water Houses) project was presented to the Roman citizenry and the first supply unit was installed. An integrated communication campaign across the territory of Rome and ATO 2 is being planned in conjunction with STO (Segreteria Tecnico Operativa - Operational Technical Secretariat).</li> </ul>
<ul style="list-style-type: none"> <li>Planning sponsorships/donations as under paragraph 8.1 of the Group Executive Regulation: “Communication Plan”</li> </ul> <p><b>PARENT COMPANY – External Relations and Communication Division</b></p>	<ul style="list-style-type: none"> <li>A new procedure for a more transparent and shared management of donations was prepared and submitted. The “Acea per Roma” project is expected to be launched by 2015.</li> </ul>
<ul style="list-style-type: none"> <li>Supporting artistic, cultural and sports events to the benefit of the community, with special emphasis on the enhancement of suburbs, and introducing an ex-ante/ex-post sponsorship assessment system</li> </ul> <p><b>PARENT COMPANY – External Relations and Communication Division</b></p>	<ul style="list-style-type: none"> <li>The Communication Plan was presented, complete with the planning of the year’s macro artistic, cultural and sports events. Initiatives were undertaken to support suburban areas. The ROI (Return On Investment) technical evaluation model to be applied to sponsorships in order to monitor their financial sustainability was identified.</li> </ul>
<ul style="list-style-type: none"> <li>Improving timeliness and thoroughness of online contents, making them easier to access.</li> </ul> <p><b>PARENT COMPANY – External Relations and Communication Division</b></p>	<ul style="list-style-type: none"> <li>The assessment for redefining Acea’s website and social activities was completed. The drafting of financial statements in open data format was launched.</li> </ul>
<ul style="list-style-type: none"> <li>The SAP “Workforce Management” (WFM) was started, with automation processes and advanced technologies being adopted for operational management in order to maximise the use of resources and reduce the timescale for action</li> </ul> <p><b>PARENT COMPANY - ICT Division</b> <b>NETWORK AREA - Acea Distribuzione</b> <b>- Acea Illuminazione Pubblica</b> <b>WATER AREA - Acea Ato 2</b> <b>- Acea Ato 5</b></p>	<ul style="list-style-type: none"> <li>Engineering construction site for the technical implementation of WFM by using mobile devices and identifying KPIs (reporting).</li> </ul>
<ul style="list-style-type: none"> <li>Improving the quality of services delivered and relations with customers by developing hi-tech (digital and multichannel) services.</li> </ul> <p><b>PARENT COMPANY – ICT Division</b></p>	<ul style="list-style-type: none"> <li>As part of the ACEA2PUNTOZERO Scheme, projects were developed to implement the new CRM platforms with multichannel features and social functions.</li> </ul>

### SUPPLIERS

#### MEDIUM-TERM GOALS (2014-2018)

#### ACTIONS IN 2014

<ul style="list-style-type: none"> <li>Devising a vendor rating systems for the operations pertaining to the business areas.</li> </ul> <p><b>BUSINESS AREAS</b> <b>PARENT COMPANY – Safety and Protection Division</b></p>	<ul style="list-style-type: none"> <li>The vendor rating system became operational for the award of electricity, water and electromechanical tenders. A dedicated database processes the results of inspections conducted at the suppliers’ premises and inspections conducted on construction sites: <ul style="list-style-type: none"> <li>296 on-site audits were performed regarding water tenders;</li> <li>more than 1,200 on-site inspections were performed regarding electricity tenders;</li> <li>69 inspections were conducted at the premises of water, electromechanical and electricity suppliers, covering all contractors that deal with subsidiary operating companies.</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>Drafting a supply chain monitoring model for GRI-G4 reporting purposes.</li> </ul> <p><b>PARENT COMPANY – Safety and Protection Division</b> <b>PARENT COMPANY – Institutional Affairs Division</b></p>	<ul style="list-style-type: none"> <li>Participation in the <i>Sustainable Supply Chain</i> Workgroup set up as part of the Global Compact Network Italia continued. A first release of the tool known as TenP to monitor the sustainability performance of companies belonging to the supply chains of the Network members was made available on an experimental basis so that the necessary assurance tests may be conducted prior to final commissioning.</li> </ul>



- Developing Green Procurement for at least 50% of the relevant product categories included in the NAP.

#### BUSINESS AREAS

##### PARENT COMPANY – Purchasing and Logistics Division

- Streamlining the work and service procurement process: the “single contract” project.

#### BUSINESS AREAS

##### PARENT COMPANY – Purchasing and Logistics Division

- An internal training programme on Green Procurement was developed; it will start in 2015 to encourage the purchase of green products and services.
- Guidelines on Green Procurement were drafted; they will be published on the corporate intranet pages as an aid to internal training activities.
- Minimum environmental standards were included in the Special Specifications of the Tender for the maintenance service of green areas to be awarded in 2015.
- Arrangements were made to increase to at least 90% the amount allocated to the purchase of certified ecological paper out of the total expenditure of paper used for printers and copying equipment.
- The Company devised a new procurement method that will ensure a significant reduction in the number of contracts being awarded (from about 100 to 5 annual contracts). Tenders will be awarded with due account also being taken of technical as well as financial aspects according to criteria concerning environment, safety and contractor's attitude towards technological innovation.

## HUMAN RESOURCES

### MEDIUM-TERM GOALS (2014-2018)

### ACTIONS IN 2014

- Extending the culture and individual merit evaluation tools to the entire corporate population.

#### PARENT COMPANY - Human Resources and Organisation Division

- Defining a performance assessment model for the non-executive population (white and blue collars) to become effective in 2015 and implementing a pilot project in 2014.

- Promoting the value of and opportunity for change and innovation as a way of “owning” the Company during day-to-day activities, increasing the engagement of and input from everyone.

#### PARENT COMPANY - Human Resources and Organisation Division

- A scheme leveraging people's energies was devised to ensure participation in the cultural change management process. This innovative model contemplates a bottom-up change, adopting a fluid and reticular structure that makes it possible to expedite the process of actual change at all levels through the active participation of the company population.

- Implementing training and professional development schemes enhancing the Group's know-how, adjusting it to Acea's new challenges by undertaking, among other things, intergroup mobility actions.

#### PARENT COMPANY - Human Resources and Organisation Division

- Training on the Group values and importance of assessment to guarantee “People at the Core”: 9 sessions held with 350 people involved.

- Developing an industrial relation model that supports labour unions' prerogatives in playing an active role in the Group change process.

#### PARENT COMPANY - Human Resources and Organisation Division

- An agreement was entered into with union organisations linking the result-related reward also to the assessment of the individual's performance.

- Promoting actions to foster organisational innovation within the Group in order to maximise performances and synergies.

#### PARENT COMPANY - Human Resources and Organisation Division

- The “Walk In Progress” initiative was started. It is a scheme aimed at providing several and concrete training and development opportunities for young professionals of the different Group companies through on-the-job experiences and by attending highly qualified training schemes, such as an internal master course staged in conjunction with Scuola Superiore Sant'Anna di Pisa.

- Building a workplace and organisational culture that support merit and diversity empowerment.

#### PARENT COMPANY - Human Resources and Organisation Division

- At the initiative of Acea SpA Chairwoman, the Board of Directors approved the Diversity Management Charter and set up the Diversity Committee.

## SHAREHOLDERS AND INVESTORS

### MEDIUM-TERM GOALS (2014-2018)

### ACTIONS IN 2014

- Monitoring the adequacy and operation of the Internal Auditing System and checking compliance with applicable regulations, internal procedures and guiding principles.

#### PARENT COMPANY – Audit Division

- Support to top management and governance bodies in monitoring the adequacy and operation of the Internal Auditing System.
- Support to Supervisory Boards (of parent company and subsidiaries) in updating the organisation, management and auditing models as well as supervising their adequacy and enforcement.
- Support for the implementation of the whistleblowing procedure through recording, evaluation, auditing and reporting activities.
- Support provided to the Ethics Committee in supervising the enforcement of and compliance with the principles set forth in the Group's *Code of Ethics*. 5 audit investigations were conducted following specific reports of alleged violation of the Code of Ethics.
- Training on the Code of Ethics and Legislative Decree No. 231/01 continued and was monitored.

- Keeping the list of the main risks of Acea and its subsidiaries up to date using the *Corporate Risk Self Assessment (CRSA)* model.

#### PARENT COMPANY – Audit Division

- Analysis report were prepared in respect of the main risks shared with the top management, Audit and Risk Committee and Board of Statutory Auditors (of parent company and subsidiaries).

- Supporting management in ensuring a better identification of audits to be performed for risk mitigation and fraud prevention.

#### PARENT COMPANY – Audit Division

- Suggestions were given to improve the periodic reporting of audit models handled by the Divisions in charge of second-level audits.

- Operational indicators to be used for fraud prevention in administration and tender-related matters were implemented.

<ul style="list-style-type: none"> <li>Promoting financial disclosure intended for the market in compliance with fairness, transparency and equal information principles among all parties concerned (the public at large, analysts, Italian and foreign investors).</li> </ul>	<ul style="list-style-type: none"> <li>Several <i>one on one</i> meetings, extended presentations, national and international <i>roadshows</i> and <i>reverse roadshows</i> were organised, meeting about 160 <i>equity</i> investors, <i>buyside</i> analysts and <i>credit</i> investors/analysts. Conference calls were conducted with the market and financial reporters on the occasion of the approval of the annual and mid-year results and the 2014-2018 Business Plan.</li> <li>The shareholders section on the corporate website was kept up-to-date, as appropriate, with economic and financial information.</li> <li>Relations with ethical investors were handled following enquiries from industry operators interested in Acea stock.</li> </ul>
<p><b>PARENT COMPANY – Investor Relations Division</b> <b>PARENT COMPANY – Institutional Affairs Division</b></p>	
<ul style="list-style-type: none"> <li>Introducing non financial information in Acea financial statements (EU Directive No. 95 dated 22 October 2014).</li> </ul>	<ul style="list-style-type: none"> <li>The first cross-functional meetings were held to outline a shared approach to the new reporting standards under EU Directive 95/2014.</li> </ul>
<p><b>PARENT COMPANY - Audit and Finance Administration Division</b> <b>PARENT COMPANY – Institutional Affairs Division</b></p>	

## THE COMPANY

### MEDIUM-TERM GOALS (2014-2018)

- Developing electric mobility in the city of Rome.

#### NETWORK AREA - Acea Distribuzione

- Modernising electric networks in order to have them comply with system and market evolution-driven functions and to increase their dependability, transportation capacity and efficiency by implementing, among other things, new technologies.
- Participating in technological innovation projects promoted by the EU.

#### NETWORK AREA - Acea Distribuzione

- ACEA2PUNTOZERO Programme: centralising and standardising the information (software and hardware) solutions of the different Group companies with a view to improving performance and efficiency of operations while ensuring corporate asset security.

#### PARENT COMPANY – ICT Division

### ACTIONS IN 2014

- Following the installation and commissioning of the first 12 charging stations (out of the 100 expected by 2016), a process to redefine the locations of the remaining 88 stations was started in conjunction with Enel and Roma Capitale.

- The “Smart Network Management System” project was completed and the resulting functions were launched:
  - Meter accessibility;
  - ORBT (low voltage network optimisation);
  - Smart Grid Intelligence (construction of a data warehouse and implementation of tools for the acquisition, validation and management of large volumes of data for the purpose of developing KPIs and control models for network operation, maintenance and design);
  - Cable diagnostics;
  - Magnetic field control;
  - Integrated maintenance.
- Monitoring operations were conducted on the energy storage systems installed.
- Operations were started as under the memorandum of understanding signed by Acea, Fastweb and Telecom for the extension of the ultra-broadband across Rome, with Internet connection speeds up to 100 Mbit/s.

- As part of the ACEA2PUNTOZERO Programme:
  - Standard solutions from market leader SAP were adopted;
  - The Data Center 2.0 project was developed for the design of the new Group Data Center to address Disaster Recovery issues;
  - New memory-related technologies were adopted to boost performance.;
  - The SAP, Workforce Management (WFM) was started;
  - The CRM platform was implemented.

## ENVIRONMENT

### MEDIUM-TERM GOALS (2014-2018)

- Maintaining and consolidating all ISO 14001 (Environment) and ISO 50001 (Energy) certified management systems integrated with ISO 9001 (Quality) and Safety (BS OHSAS 18001) systems. Continuing the extension of use to all Group companies.
- Starting the implementation of the SA 8000 social responsibility management system in Acea SpA.

#### PARENT COMPANY – Safety and Protection Division

#### PARENT COMPANY – Institutional Affairs Division BUSINESS AREAS

- Establishing the guidelines for the organisation of low environmental impact corporate events pursuant to the ISO 20121 standard.

#### PARENT COMPANY – External Relations and Communication Division

- Lower consumption:
  - 10% of drinking water for internal use
  - 3% of electricity for internal use
  - 5% of fuels for transportation and heating.

#### PARENT COMPANY BUSINESS AREAS

### ACTIONS IN 2014

- ISO 14001 environmental management system and ISO 50001 energy management system were implemented and certified in Acea SpA and integrated with current Quality and Safety systems.
- The Quality, Environment, Safety and Energy integrated system was implemented and certified in Acea Ato 2 (certification was achieved in January 2015).
- All quality, environment and energy management systems already certified in Acea Distribuzione, Acea Illuminazione Pubblica, Acea Ato 5, ARIA, SAO and Acea Produzione were maintained. The certification held by ARSE was forfeited pending an organisational restructuring of the company.

- The 2014 shareholders' meeting was the “zero” event of the application of the ISO 20121 standard. Actions taken included: using electric vehicles, reducing the waste of paper and using recycled material.

- An action plan was drafted to curb drinking water consumption for internal use.
- The lighting systems of waste-to-energy plants in San Vittore del Lazio and Terni were replaced with LED units (about 1,700 new light fittings, with electricity savings being expected in the region of 480 MWh/year).
- Waste-to-energy plant in San Vittore del Lazio - The waste collection and transportation system was upgraded from a water-bath system (currently used) to a new dry system.
- Tender documents were drafted to replace lighting fittings in Primary Station yards with LED units.

- Reducing by 1% “real losses” of water along water distribution networks.
- A number of projects aimed at reducing water losses were launched. 121 water districts in Rome and in the other municipalities of ATO 2 were remapped.

**WATER AREA**

- Reducing by 1.5% network consumption due to Joule effect (network technical losses) along Rome electrical distribution network.
- MV/LV transformers were defined consistent with EC Regulation No. 548 dated 21/05/2014 (EU Ecodesign Directive - better energy performances).
- Voltage switches from 8.4 to 20 kV (medium voltage) and from 220 to 380 V (low voltage) continued.
- LV network configuration optimisation operations started.

**NETWORK AREA - Acea Distribuzione**

- Rome public lighting network: develop large-scale installation of LED lamps by 2020.
- The start of the LED Plan is scheduled for the third quarter of 2015 and includes the installation of about 189,000 lighting fittings within 18 months, with energy savings being expected in the region of 55% compared to current consumption patterns.

**NETWORK AREA - Acea Illuminazione Pubblica**

- Supply of green electricity for Rome public lighting system.
- In view of the considerable resources involved in the LED switchover process involving the entire public lighting system in Rome, this goal was postponed to a date to be defined.

**NETWORK AREA - Acea Illuminazione Pubblica**

- Monitoring CO<sub>2</sub> emissions produced by processes with a view to estimating the carbon footprint and planning actions as necessary.
- The cross-functional workgroup tasked with the monitoring of CO<sub>2</sub> emissions (carbon footprint) started to play its linking role in this area, i.e. *Carbon Disclosure Project (CDP) reporting and planning actions aimed at curbing emissions*.

**PARENT COMPANY – Safety and Protection Division**

**PARENT COMPANY – Institutional Affairs Division**

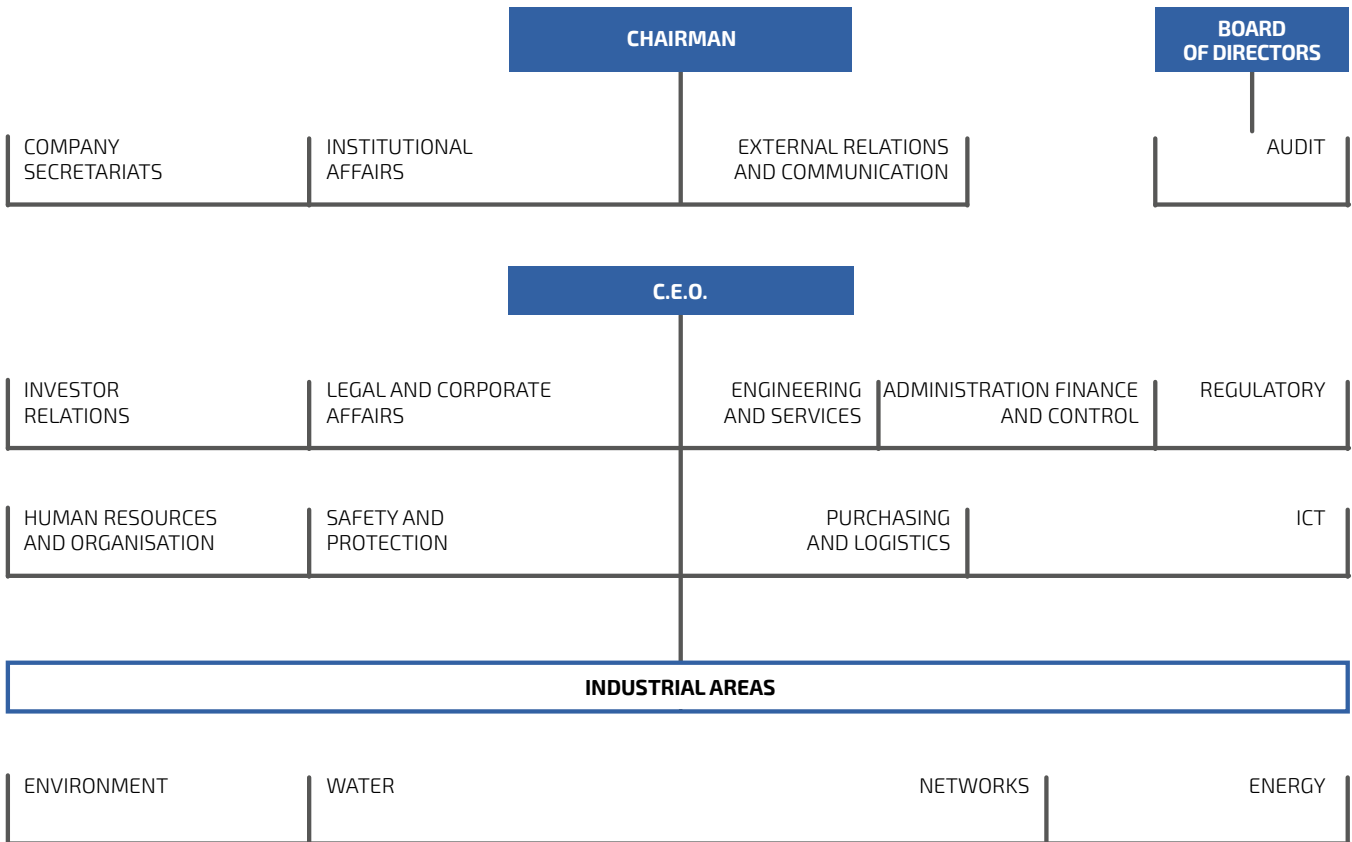
- Energy diagnosis audits were conducted for Acea SpA and Acea Distribuzione main buildings (operational centres).
- Initial formalities to launch the project were discharged.

**NETWORK AREA - Acea Distribuzione**

**PARENT COMPANY – Safety and Protection Division**

# CORPORATE GOVERNANCE AND MANAGEMENT SYSTEMS

CHART 7- ACEA SPA'S ORGANISATION CHART AT 31/12/2014



## CORPORATE GOVERNANCE WITHIN ACEA

Acea governance model complies with the *Code of Conduct for Listed Companies* and is consistent with the principles of **transparency, balance and segregation of policy-driven, management and control activities**. The Board of Directors of Acea SpA **outlines the Group key policies** and is responsible for their management. **Two Committees** are

also operational within the parent company (the *Audit and Risk Committee* and *Appointment and Remuneration Committee*) **discharging advisory and consultative duties** and interacting with the Company's leadership. The Board of Statutory Auditors performs supervisory duties.

## ACEA GROUP CORPORATE GOVERNANCE MAIN MILESTONES

### 1999

- The corporate governance document was approved and the *Code of Conduct for Listed Companies* was gradually enforced
- The Internal Audit Committee and Remuneration Committee were established and became operational
- The Investor Relations Division was established

### 2000-2002

- The *Shareholders' Meeting Regulations* were adopted
- The *Charter of Values* (2011) and *THE Code of Conduct on Internal Dealing* were adopted (2002)

### 2003-2005

- The *Code of Ethics for Tenders* (2003) and the *Code of Ethics* (2004) were adopted; the *Ethics Committee* was established
- The Chairman was tasked with *control and monitoring duties as related to the Group's social and environmental performances* (2003) and the Risk Control and Customer Care Supervision Units were established (2005)
- The first *Organisation, management and control model* was adopted pursuant to Legislative Decree No. 231/2001 and a Supervisory Board was established firstly within the parent company (2004) and then in Acea's major companies engaging in water, network and energy services
- The guidelines for the processing of personal information were adopted pursuant to Legislative Decree No. 196/03 dealing with data protection (2005)
- The "Internal Rule System" (group policies, strategic governance processes, procedures governing equity investments, operating processes and working processes) was adopted (2005)

### 2006-2008

- The new version of the *Code of Conduct for Listed Companies (Borsa Italiana)* was implemented (2006)
- The Articles of Association were amended to comply with provisions under Law No. 262/05 (2006)
- New *Regulations for the internal management and external disclosure of corporate documents and information* were drafted and new provisions governing Internal Dealing were introduced (2006)
- A procedure for governing the decision-making process of transactions with related parties consistent with the principles of fairness and transparency was adopted (2008)

### 2009-2011

- The Internal Audit System (IAS) was reviewed and its *Guiding Lines* were approved (2010)
- New regulations on the composition and operation of the Committees were approved (2010)
- A new procedure for transactions with related parties was approved and the Committee for Transactions with Related Parties was established (2010, effective 1 January 2011)
- The Articles of Association were amended to comply with latest law provisions (Law No. 34/08, Legislative Decree No. 27/10) governing the methods for selecting and electing corporate bodies and participation in shareholders' meetings (2010)
- The General Manager position was introduced
- The process relating to the winding-up of the joint venture between Acea SpA and GdF Suez Energia Italia SpA was finalised on 31 March 2011
- The composition of the Ethics Committee was completed by appointing two external members. In its meeting held on 21 November 2011, the Ethics Committee approved the *Reporting and CSR Guiding Lines*, thereby following up the top management's will to align the publication of the *Sustainability Report* with that of the *Financial Statements*
- As in previous years, the *Organisation, management and control models* were introduced or amended, as pursuant to Legislative Decree No. 231/2001, for several companies of the Acea Group as a result of organisational changes and the extension of the violations contemplated under Legislative Decree No. 121/11

### 2012-2013

- The new *Code of Ethics* was approved, incorporating in one single document Acea codes of conduct and values (*Charter of Values, Code of Ethics* and *Code of Ethics for Tenders*) and procedures for reporting alleged violations of the aforesaid *Code*
- The *Internal Dealing* procedure and the procedure for Transactions with Related Parties were amended
- As pursuant to Legislative Decree No. 231/2001, the *Organisation, management and control models* of all Acea SpA subsidiaries were amended in respect of environmental crimes and crimes pertaining to the manpower sourced from citizens from non-EU countries holding irregular residence permits, undue induction to give or promise benefits and corruption between private individuals
- The Group directional principle for compliance with antitrust provisions was approved
- The Energy Area Risk Operating Committee tasked with the supervision and monitoring of commodity management-related risks was established
- Acea SpA's Articles of Association were amended to comply with provisions introduced by Law No. 120/2011 governing equal gender representation in management and control bodies of public companies
- New corporate executive Committees were established

### 2014

- As pursuant to the *Code of Conduct for Listed Companies*, the evaluation on the size, composition and operation of the Board of Directors and its internal committees (known as the "**Board Evaluation**") was conducted with the aid of an independent consultant
- The Company's board of governors was renewed and at the same time the **number of members** sitting on the Board of Directors was reduced from 9 to 7, while **the female quota was increased** above statutory requirements (57% compared to 33% as required by law)
- The **Diversity Management Charter** was adopted and the **Diversity Committee** was established
- The **Ethics Committee composition** was renewed through the appointment of internal and external members

The management of the Company is entrusted to **the Board of Directors** (BoD) consisting of 5 to 9 members as established by the shareholders' meeting. Board members can be re-appointed and remain in office for three accounting periods. The method adopted for their election ensures gradual equity between genders, the appointment of an appropriate number of **Directors to represent minority shareholders** and a minimum number of **independent Directors** as laid down by law<sup>19</sup>.

**The Board in office**, appointed by the shareholders' meeting held on 5 June 2014, **consists of seven members** (see relevant box, where other positions, if any, held by the Board members in the internal Committees are also shown); during the year, the Board met 16 times. The **Chairman** and **Chief Executive Office** are the only **executive directors**.

The **Report on corporate governance and shareholders' structure**, available online on the company website at [www.acea.it](http://www.acea.it), provides detailed information regarding Acea SpA Directors, including CVs, independence requirements, attendance at Board and relevant Committee meetings as well as any offices held in other companies. With regard to Directors' remuneration, reference should be made to *Human resource empowerment and communications* under *Human resources*.

ACEA SPA BOARD OF DIRECTORS MEMBERSHIP (AT 31/12/2014)	
<b>Catia Tomasetti</b>	(Chairwoman)
<b>Alberto Irace</b>	(Chief Executive Officer)
<b>Elisabetta Maggini</b>	(Chairwoman of the Audit and Risk Committee; Chairwoman of the Appointment and Remuneration Committee; member of the Ethics Committee and Committee for Transactions with Related Parties)
<b>Francesco Caltagirone</b>	(member of the Ethics Committee)
<b>Paola Antonia Profeta</b>	(Chairwoman of the Ethics Committee; member of the Appointment and Remuneration Committee, Audit and Risk Committee and Committee for Transactions with Related Parties)
<b>Giovanni Giani</b>	(member of the Audit and Risk Committee and Appointment and Remuneration Committee)
<b>Diane D'Arras</b>	(member of the Ethics Committee)

In March 2014, the current Chief Executive Officer of Acea SpA, Alberto Irace, former Head of the water business area of Group, was recognised as **2013 Best Utility Manager** as part of the XIV M&A Observatory Workshop staged by Accenture

and Agici. This recognition is related to the innovation introduced in Publiacqua - a water company of the Group delivering water services in Florence, Prato, Pistoia and Arezzo - through the WFM (Workforce Management) system, which

led to the creation of a digitalised management system capable of significantly streamlining the organisation of activities across the territory.

ROLES AND POWERS OF ACEA BOARD OF DIRECTORS
<p>The <b>duties lying with the Board of Directors</b> pursuant to law provisions, the Articles of Association and in compliance with the recommendations provided in the <i>Code of Conduct</i> include:</p> <ul style="list-style-type: none"> <li>• Outlining the Company's general and strategic policies as well as guiding lines; coordinating the economic and financial operations of the Group by approving business plans, including financial plans, investment plans and annual budgets;</li> <li>• Defining the nature and extent of risk consistent with the strategic goals of the Company;</li> <li>• Approving and amending internal regulations with regard to the general organisational structure of the Company;</li> <li>• Establishing the Committees required by the Code of Conduct and appointing their members;</li> <li>• Adopting <i>Organisation, management and control models</i> as pursuant to Legislative Decree No. 231/01;</li> <li>• Assessing the adequacy of the organisational, administrative and accounting structure of Acea and its key subsidiaries;</li> <li>• Interacting with the shareholders and undertaking initiatives aimed at increasing their engagement and enabling them to exercise their rights smoothly;</li> <li>• Establishing audits for the protection of personal data or third party's sensitive data, complete with the drafting of an annual security policy report (Legislative Decree 196/03);</li> <li>• Adopting the necessary procedures to protect the health of workers and appointing individuals to supervise safety in the workplace (Legislative Decree 81/08).</li> </ul>

<sup>19</sup> As pursuant to Article 147(b), paragraph 4 of Legislative Decree No. 58/98, known as Consolidated Text on Finance, the minimum number of independent Directors must be 1 in the event of a Board consisting of up to 7 members and 2 if the Board exceeds 7 members. During 2014, the Board checked whether Directors met the conditions required in order to be qualified as independent: as at 31 December 2014, 3 Directors out of 7 qualified as independent.

## CHAIRMAN AND CHIEF EXECUTIVE OFFICER DUTIES

The **Chairman** is the legal representative of the Company and is vested with signing powers. He/she also has the power to call and chair Board and shareholders' meetings. His/her duties include: overseeing the Group's activities and checking the enforcement of board resolutions and corporate governance regulations; monitoring business activities and processes with reference to delivered vs. perceived quality as well as activities related to corporate social responsibility; supervising corporate secretariat operations of the parent company.

The **Chief Executive Officer** is (i) entrusted with the ordinary business of the Company, (ii) vested with signing powers, (iii) the Company's legal representative and (iv) authorised to represent the Company in dealings before the courts of law. He shall also discharge such other duties as may be entrusted to him pursuant to law provisions and the Articles of Association. His terms of reference are based on long-term plans and annual budgets approved by the Board. Moreover, he ensures and monitors compliance with operational guidelines, implementing organisational and procedural changes to the parent company's activities consistent with the guidelines issued by the Board of Directors. The current Chief Executive Officer also holds the office of General Manager.

**The Chairman and the Chief Executive Officer** report at least quarterly to the Board of Directors and the Board of Statutory Auditors on the general operating trend and outlook.

If necessary, the Chairman and Chief Executive Officer are entitled to jointly adopt acts lying with the Board of Directors as regards contracts, purchases, participation in tenders, issue of sureties and appointment of members of the Boards of Directors and Boards of Statutory Auditors of the Group's major subsidiaries if the urgency of the matters does not allow a meeting to be called, subject however to informing the Board of Directors in its first subsequent meeting in order to ascertain the legitimacy of any such actions.

### The ordinary and extraordinary Shareholders' Meeting can be summoned

by the **Board of Directors** as well as **upon request of the shareholders**, provided that they represent at least 5% of the share capital as pursuant to applicable law provisions. Furthermore, in compliance with such provisions, the shareholders representing at least 2.5% of the share capital may request that additional matters be discussed by either recommending additional

topics or submitting resolution proposals for matters already included in the agenda. Computerised methods of interaction shall also be available, such as the electronic notification of shareholders' representation proxies during the meetings and publication of the notice convening the shareholders' general meeting on the company website. Finally, prior to the date fixed for the General Meeting, the shareholders may submit enquiries regarding topics on the agenda

either by registered letters or email. There are no shares with limited voting rights or non-voting shares<sup>20</sup>.

Except for Roma Capitale shareholder, restrictions shall apply to the voting right of shares exceeding 8% of the share capital, as laid down by the Articles of Association. Neither shareholders' agreements nor special rights of veto or in any way affecting the decision-making process exist other than as a result of the equity interest held.

## CHANGES TO THE CODE OF CONDUCT FOR LISTED COMPANIES AND APPLICATIONS IN ACEA

In July 2014, the Corporate Governance Committee established with Borsa Italiana SpA introduced a **number of significant changes to the Code of Conduct for Listed Companies**. First of all, the new text reinforces the "comply or explain" principle in line with EU Recommendation No. 208/2014, requiring companies to comply with specific requirements as set out in the *Report on corporate governance* in the event of failure to comply with the *Code* recommendations. Moreover, **transparency on golden parachutes** for executive directors and general managers is encouraged in pursuance of CONSOB Communication dated 19 June 2014. In this regard, **as of 2014 no fixed indemnities or protection clauses for executives are available in Acea** in the event of termination of employment (known as "parachute"), including the Chief Executive Officer/General Manager - as well as other non-executive directors. Likewise, no agreement has been entered contemplating any such indemnities, with such matters being referred solely to the relevant national collective bargaining provisions.

Amendments made to the *Code* included a recommendation whereby any variable compensation paid to proxy-vested directors or key executives should be returned if data subsequently prove to be patently wrong (*clawback* clause). In this connection, the *Code* requires the application of the aforesaid clause starting from financial year 2015: **Acea is one of the few Italian companies that has adopted the clawback clause as early as 2014.**

A number of **corporate committees discharging technical and consultative duties** (*Steering Committee, Management Committee, Business Review, Regulatory Steering*) operate in the parent company to improve business integration and decision-making processes. Sitting on such committees are the heads of Acea SpA Business Areas and Divisions, with the Holding Company's Chief Executive Officer acting as chairman. During 2014, the corporate committees met to discuss key economic and financial, business and regulatory topics and take stock of progress made on ongoing projects. One of the main topics covered was the ACEA2PUNTOZERO Project, whose innovative implementations will involve the Group's main companies in the 2014-2016 three-year term.

**Acea Internal Audit and Risk Management System (IARMS)** is a key element of the corporate governance structure comprising rules, policies, procedures and organisational structures aimed at:

- **Identifying events that may positively (opportunities) or negatively (risks) affect the pursuit of the goals set by the Board of Directors;**
- Encouraging the adoption of **informed decisions** and contributing to a business management in line with corporate goals;
- Helping ensure the **protection of corporate assets, efficiency and effectiveness of processes, accuracy of financial information and compliance with the laws, regulations, Articles of Association and internal procedures.**

This system **applies to the entire corporate structure**, involving the following entities to different extents:

- **The Board of Directors (BoD)**, whose paramount purpose is to safeguard the interests of the Company and create value for the shareholders over a medium/long-term period, furthering action aimed at ensuring compliance with law provisions, the Articles of Association, the *Code of Conduct*, as well as the principles laid down in the Group *Code of Ethics*. With the support of the Audit and Risk Committee, the BoD defines the Guidelines of the IARMS **in order that the main risks pertaining to Acea SpA and its subsidiaries may be identified, assessed and addressed.** The BoD has the power to appoint and remove the members of the

<sup>20</sup> Except for 416,993 treasury shares (corresponding approximately to 0.2% of total shares) in respect of which the voting right is suspended in accordance with Article 2357(b) of the Italian Civil Code of Procedure. Reference should also be made to Report on corporate governance and shareholders' structure.

committees and the individuals who operate within the system, including the Director appointed to oversee IARMS operations, the Head of the Audit Division and the Executive responsible for drafting company accounting records;

- **The Audit and Risk Committee**, discharging advisory and consultative duties for the Board of Directors with respect to the tasks outlined in the *Code of Conduct*. In 2014, the Committee met 9 times;
- **The Appointment and Remuneration Committee**, discharging advisory and consultative duties for the Board of Directors with regard to both setting emoluments for directors and key executives and the size and composition of the BoD itself, with special reference to professional profiles whose presence therein is deemed appropriate. During the year, the Committee met 5 times;
- **The Board of Statutory Auditors**, performing a general supervisory role in respect of law compliance, best practices and actual enforcement of the *Code of Conduct* as per powers and duties under applicable law provisions. The General Meeting elects the Chairman from among the regular auditors elected by the minority shareholders.
- **The Chief Executive Officer**, coinciding with the Director in charge of the IARMS, who **executes the system policies** defined by the BoD and, upon relying on the support of the Audit Division, identifies the main business risks, submitting them to the BoD on a regular basis;
- **The Executive responsible for drafting accounting and corporate records**, who is also responsible for establishing and maintaining the Internal Audit System for Financial Disclosures and issuing appropriate certification, together with the Chief Executive Officer;
- **The Supervisory Body**, which is vested with full and independent decision-making and acting powers with regard to the operation and effectiveness of the *Organisation, management and control model* adopted pursuant to Italian Legislative Decree No. 231/2001 for the purpose of **preventing the risk of offences** that may expose the Company to administrative liability. The Supervisory Board of the parent company and those of the subsidiaries perform

monitoring duties regarding significant transactions that may result in crimes being committed under Italian Legislative Decree No. 231/01, including crimes pertaining to the **environment, workers' safety and corruption and bribery**, through information flows transmitted by the corporate structures, complete with risk indicators. With regard the aforesaid transactions, the Supervisory Board draws up an annual plan of checks and may request that specific control activities are carried out in relation to periodic or specific information received. In compliance with provisions under Article 6 of Legislative Decree No. 231/01, the duties lying with the Supervisory Board are discharged by the Board of Statutory Auditors with a view to rationalising audit systems;

- **The Ethics Committee**<sup>21</sup>, whose task is to spread the knowledge of the *Code of Ethics* throughout the Group - through an online training scheme designed for employees (see *Human resource empowerment and communications* under *Human Resources*) - monitor the enforcement of the Code and define procedures that are instrumental in ensuring compliance with the principles set forth therein. During the year, the Committee met 4 times;
- **The Audit Division**, whose task is to perform **independent checks - either on an on-going basis or in relation to specific needs and in observance of industry standards - on the effectiveness and suitability of the System** using a Risk-Based Audit Plan approved by the BoD. It also oversees the execution of the action plans issued following the aforesaid checks. The Audit Division, who reports to the BoD and does not manage operating activities. It is also responsible for performing checks on the offences as identified under Legislative Decree No. 231/01. As part of the checks required by the Supervisory Board relating to the effectiveness of the implementation of the *Organisation, management and control model*, **audits on the corporate credit card management process and human resource development process were conducted in 2014**, as they are both prone to **corruption crimes**. The Audit Division also aids the Director in charge to identify the main risks of Acea SpA and its subsidiaries and

implement the IARMS guidelines by relying, among other things, on the support of second-level audit divisions through a dotted-line relationship;

- **The Risk Control and Internal Audit Unit** within the Audit Division, whose tasks include **planning, implementing and managing risk identification and assessment processes and tools**, making the Group more aware of factors that may jeopardise the achievement of corporate objectives and supporting the management in identifying any actions for improvement;
- **All the executives and employees** who are responsible, within their own sphere of competence, for the actions to be taken in order to ensure an effective running of the Internal Audit and Risk Management System.

**Risk management is therefore a cross-cutting process** involving across-the-board responsibilities and the engagement of all corporate levels, the purpose being to assess exposure and identify actions aimed at avoiding, mitigating - through audit activities, management systems or procedures - or transferring unacceptable risks using, for example, insurance policies.

**Risk control safeguards** are developed by the heads of the same operating activities (**first level**). Subsequently, additional actions aimed at checking whether first level controls are adequate and operative (**second level**) are undertaken by the Heads of the Organisational Units where the risk lies as well as by other corporate organisations of the parent company, reporting to the Director in charge of the IARMS and the Audit Division. Finally, this Division performs independent audits (**third level**) on specific processes and, more generally, checks the adequacy and efficiency of the complex Internal Audit and Risk Management System. As part of the periodic **Control Risk Self-Assessment processes**, in 2014 **7 Divisions of the parent company and 14 Group companies** were involved in audit operations. 124 managers were interviewed, completing 1,269 assessment sheets and describing the activities as well as the audit and mitigation systems of the risks managed.

<sup>21</sup> Pursuant to applicable provisions, the Ethics Committee shall consist of 5 members, i.e. 3 non-executive directors of Acea SpA and 2 external members. All members must meet integrity, professional and independence requirements, while external members shall have experience in corporate ethics and labour matters.



## MANAGEMENT SYSTEMS

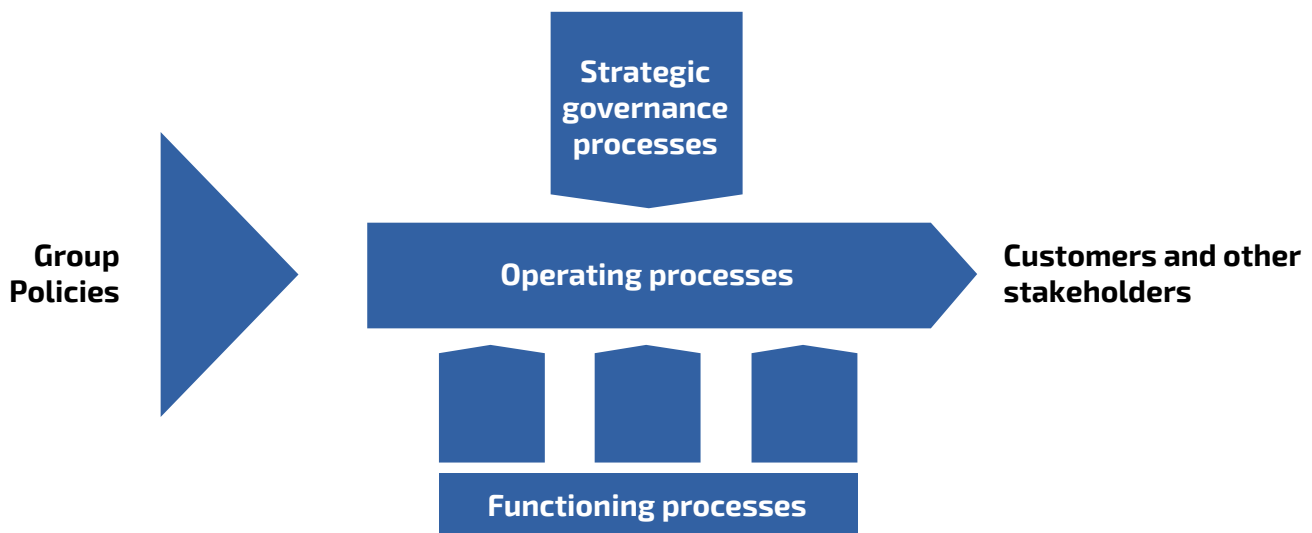
The **Internal Rule System** (see Chart 8) supervises the proper running of the Group's corporate governance operations, from the issue of general guidelines to the formal statement of particular business aspects according to the following criteria:

- **Group-wide directional rules**, through which the parent company gives instructions to all corporate units;

- **Processes** consisting of governance, functioning and operating processes, depending on whether they pertain to strategic, across-the-board or individual business areas;
- **Procedures** defining the methods whereby company processes are implemented.

In 2014, the **Information and Communication Technology Division**, which is responsible for mission-critical management systems, was also highly involved in the modernisation, standardisation and centralisation process of the Group's information systems as part of the aforementioned ACEA2PUNTOZERO project (see relevant box in *Group Profile* and *Institutions and the Company*).

CHART 8 – INTERNAL RULE SYSTEM



The **Safety and Protection Division** of Acea SpA, through specific operating units, is responsible for implementing and ensuring the enforcement of Group policies pertaining to **quality, environment, energy, safety in the workplace, suppliers' qualification, security and protection of corporate** tangible and intangible assets (see *Suppliers* and, as to the protection of corporate assets, *Institutions and the Company*).

In his capacity as Representative of the Department of Acea Certified Management Systems, the Head of this Division - who also acts as the Group **Energy Manager** and **Mobility Manager** (activities carried out in this role in 2014 are described in a special box under

*Environmental Issues, Air Emissions*) - is responsible for reviewing and updating on a regular basis the **Quality, Environmental, Safety and Energy Policy** adopted by Acea to ensure an **integrated approach to the matters underlying the management systems**. To this end, Acea entered into a framework agreement with Certification Agency RINA to certify the compliance of its management systems with several standards (environment, quality, safety and energy), allowing all Group subsidiaries to rely on one single certification path, thereby optimising certification processes from both an efficiency as well as time and cost-saving perspective.

At the organisational level, the Representatives

of the Management System Department of Group companies report to the dotted line Manager of Safety and Protection, relying on the support of the related Units for developing and maintaining the relevant Management Systems.

The **majority of the Group's companies own certified management systems** consistent with **quality<sup>22</sup>, safety, environmental and energy management standards**, with some facilities also holding EMAS Registration (see Table 10). It should be stressed that in 2014 **Acea Ato 2 continued and completed the qualification and certification process for the Environment, Safety and Energy systems**, with official certification being expected in 2015.

22 Moreover, companies that are UNI EN ISO 9001:2008-certified can obtain the SOA certificate for the award of public works pertaining to their field of expertise.

**TABLE 10 – ACEA GROUP CERTIFICATIONS: QUALITY, ENVIRONMENT, HEALTH AND SAFETY, ENERGY SYSTEMS**

COMPANY	CERTIFICATION AREA	ISO 9001 QUALITY	ISO 14001 ENVIRONMENT	BS OHSAS 18001 SAFETY	ISO 50001 ENERGY	OTHER ACCREDITATIONS
Acea SpA	Administrative services (such as organisation and administration, human resource management, finance and auditing) for Group companies	X	X (2014)	X	X (2014)	
LaboratoRI SpA	Planning and designing projects, project management, reports, monitoring and modelling activities for water and environmental projects	X		X		ISO/IEC 17025:2005 (water tests)
Acea Ato 2 SpA	Planning, building, operating, maintaining and refurbishing IWS networks and management systems in ATO Central Lazio	X				
Acea Ato 5 SpA	Planning, building, operating, maintaining and refurbishing IWS networks and management systems in ATO 5 Southern Lazio	X	X	X	X	
Crea Gestioni Srl	Running and operating IWS facilities	X	X	X		
Publiacqua SpA	Designing and managing contracts for IWS construction works Delivery of IWS	X	X			
Publiacqua Ingegneria SpA	Designing, supervising and testing IWS-related works	X				
Acquedotto del Fiora SpA	Design and construction of IWS networks and management systems located in Ombrone ATO - Tuscany	X				
Acque SpA	Design and delivery of IWS in Basso Valdarno ATO - Tuscany	X	X	X	X	BEST4 PLUS (quality, environment, safety and, from 2014, energy, SA8000)
Nuove Acque SpA	IWS management	X				SA8000
Umbra Acque SpA	Design and construction of IWS networks Supply of sewerage and water treatment services Città di Castello Northern Area	X				ISO/IEC 17025:2005 (in 2014: for some standards of the natural water matrix)
Acea Gori Servizi Scarl	Engineering, technical and administrative services, supervising and testing IWS-related works	X	X	X		
Acea Distribuzione SpA	Planning, building, operating, maintaining and refurbishing networks and plants for the management of the electricity distribution service in Rome and Formello	X	X	X	X	
Acea Illuminazione Pubblica SpA	Designing, building, operating, maintaining and refurbishing networks and plants for the global and integrated management of functional and artistic public lighting systems	X	X	X	X	
Acea Energia SpA	Sale of electricity, heat and gas to free and protected markets			X		
Acea Produzione SpA	Designing, building, operating and maintaining energy production plants (hydroelectric plants: Ferraris, Marconi, Cecchina, Madonna del Rosario, S. Andelo, Salisano, Volta; thermoelectric plants: Montemartini, Tor di Valle); supply of remote heating services		X	X		
A.R.I.A. Srl	Generation of energy from RDF - Terni		X	X		EMAS
A.R.I.A. Srl	Generation of energy from RDF - S. Vittore del Lazio		X	X		EMAS
SAO Srl	Design and management of urban and special waste treatment, recovery and disposal plants. Collection and transportation of waste to be treated		X	X		EMAS

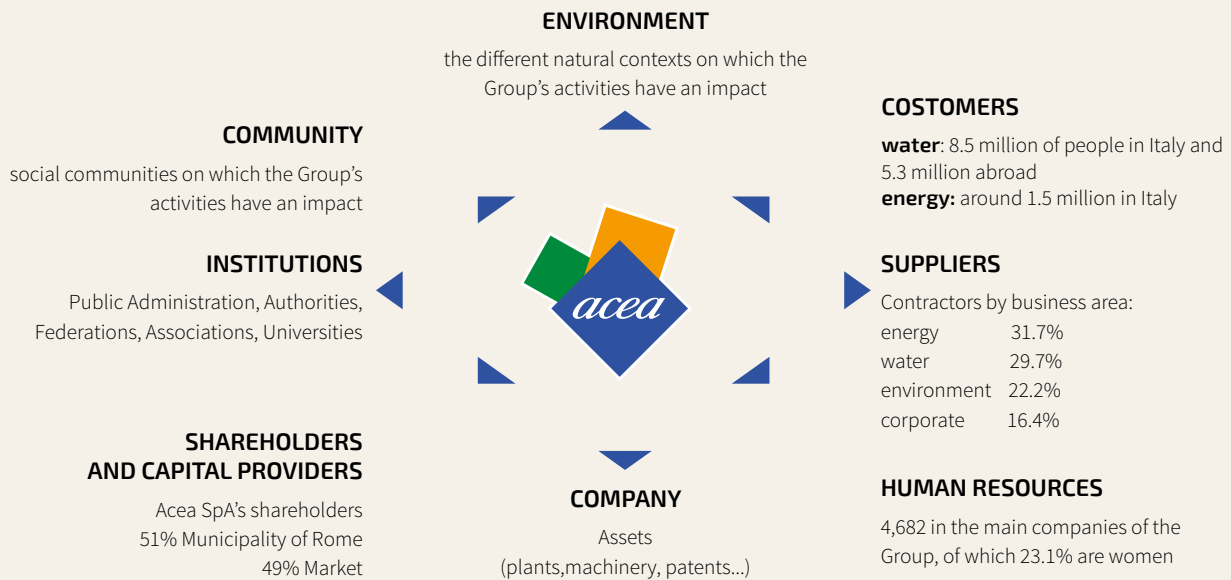
# STAKEHOLDERS AND ALLOCATION OF GENERATED VALUE

## STAKEHOLDERS AND THEIR INVOLVEMENT

Consistent with the values stated in the *Code of Ethics*, Acea encourages dialogue and interaction with its stakeholders<sup>23</sup>. Identifying the different types of stakeholders, managing interactions between them and the Company and analysing such interactions are continuous and dynamic activities stemming from both company drives and objectives, such as strategic

initiatives, as well as inputs from outside, such as requests from the parties concerned. The relationships forming between the Company and its stakeholders instil in both a sense of responsibility and awareness of their respective roles, encouraging engagement in the pursuit of a common development and value-creation scenario<sup>24</sup>.

CHART 9 – ACEA AND ITS STAKEHOLDERS



**NB:** The type and features of Stakeholders as well as their relations with the company, are illustrated, quantified and analysed in-depth in the sections of the Sustainability Report.

CHART 10 – ACEA'S VALUE SYSTEM AS APPLICABLE TO ITS STAKEHOLDERS



<sup>23</sup> Stakeholders are entities (considered as individuals, groups or organisations) who have significant relations with the Company and whose interests are - to different extents - involved in the activities of the Company either by virtue of their dealings with the latter or because they are significantly influenced by such activities.

<sup>24</sup> Towards the end of 2014, as mentioned earlier (see *Sharing Corporate Social Responsibility Matters*), Group Multistakeholder Focus Groups were staged for the purposes of materiality analysis renewal.

The interactions between the Group and the different stakeholders generate a **wealth of information and relations** that is crucial to both fostering business development and reinforcing and enhancing the standing and repute ascribed to Acea by its stakeholders. With regard to the requests emanating from the **community**, Acea's response is timely and seamless as the Company is aware of the contribution it can and must provide by supporting, for example, cultural, sporting and social events for the community involved, with a view to creating a corporate citizenship and acting as a change champion. A project undertaken in this respect in 2014 in order to increase user awareness regarding the good quality of water resources distributed was the launch of the "Case dell'Acqua" (**Water Houses**) project (see *Water Area Quality* under *Customers and Community*).

Relations with the **customers** are built starting from a mapping of the commercial and technical, physical or virtual processes through which

interactions with the Company are created (*touchpoint*) in order to either identify those that generate added value and then improve and implement them further or, conversely, identify situations that may result in negative experiences and possible claims, so that their occurrence and impact on customer experience may be reduced. Relations are fostered by appropriate capabilities that undergo constant development and rely on market leading applications in order to promote dialogue and improve the exchange of information and services, with special reference to the application of information technologies (e.g. online counters, new web functions and electronic bill). Dealings with **financial stakeholders** are supervised by dedicated business units whose duty is to monitor, interact with and provide feedback to the enquiries of potential equity investors (mainstream and ESG – *Environmental, Social and Governance*) as well as bank and security dealers. Dealings with **national and local institutions** and **relevant authorities** consist of audits, information exchanges and

specific co-operation projects. In this connection, emphasis is placed on some projects that can help improve the levels of management of crucial or safety infrastructures across the urban territory both in the event of emergency situations that need to be addressed as well as in day-to-day operations (see *Institutions and the Company*). With regard to **human resources**, Acea is committed to the adoption of an approach aimed at enhancing and developing its human resources, through both extensive training activities focused on promoting the level of engagement of the Group's employee and a more widespread use of the People Management System and Leadership Model (see *Human Resources*).

Relations with **suppliers** are handled through both systems – i.e. by holding round tables with local employer organisations, such as during the presentation of the new **single tender** system for the **maintenance of networks and related services** – as well as individual operators through rating and qualification processes of Acea Group's suppliers (see *Suppliers*).

## DISTRIBUTION OF VALUE GENERATED BY ACEA

The economic value generated by the Acea Group in 2014, including revenues generated by core business operations and financial transactions, amounted to **3,085.9 million euros** (3,341.7 million euros in 2013).

Below is a breakdown of the above figure amongst the stakeholders: **68.3%** to **suppliers**, **13.1%** to the **Company** as resources to be reinvested; **7.4%** to **employees**; **4.2%** to **shareholders** in the form of dividends; **3.9%** to **investors** in the form of interest on capital provided; **3.9%** to **public authorities**<sup>25</sup> in the form of taxes paid and **0.1%** to the **community** by way of sponsorships and donations for events and kindred endeavours.

TABLE 11 – ECONOMIC VALUE DIRECTLY GENERATED AND DISTRIBUTED (2013-2014)

(€/m)	2013	2014
<b>Total economic value directly generated</b>	<b>3,341.7</b>	<b>3,085.9</b>
<b>Distribution to stakeholders</b>		
Operating costs (suppliers)	2,400.5	2,106.4
Employees	238.3	229.5
Shareholders	100.9	91.6 (*)
Investors	126.4	129.4
Public administration	105.8	120.9
Community	5.1	3.4
Company	364.7	404.7

**Note:** Following changes resulting from the application of the new accounting standards, balance sheet and P&L figures at 31/12/2013 underlying the calculations for the value generated and distributed to stakeholders were restated for comparative purposes.

(\*) Shareholders were also allocated 10.7 million from reserves

TABLE 12 - BREAKDOWN OF GENERATED VALUE BY STAKEHOLDER (2013-2014)

	2013 (%)	2014 (%)
Suppliers	71.9	68.3
Employees	7.1	7.4
Shareholders	3	3
Investors	3.8	4.2
Public administration	3.2	3.9
Community	0.1	0.1
Company	10.9	13.1

25 The amount paid to the PA net of state and regional public contributions that Acea receives from this stakeholder totalled 113.9 million euros.



*Tivoli (Rome province), initial stretch of Acquedotto Marcio*





# 2014

SOCIO-ECONOMIC RELATIONSHIPS  
WITH THE STAKEHOLDERS

“This is the first time Santa Maria Maggiore has been lit up; its belfry is the only one in the Capital to have the latest low-cost technology”.

*Repubblica.it*

**Basilica of Santa Maria Maggiore**  
lit up with 138 LED lights

December 2014-January 2015

# CUSTOMERS AND COMMUNITY

We will improve our relationships with customers by developing advanced management systems and strengthening contact channels.

We aim to pursue our public utility mission also by becoming involved in the social context.

## REPORT BOUNDARY

Data pertaining to the volume of customers relates to the Group (companies included in the basis of consolidation of the financial statements, including water companies that in 2014 were consolidated using the shareholders' equity method); data pertaining to perceived quality, delivered quality, customer care, prices and communication activities relate to a narrower boundary and to the operating companies from time to time referred to in the text.

The interactions among Acea, customers and community are described and illustrated in one single chapter, as the information and data related to the services delivered - **perceived quality, delivered quality, customer care** - refer mainly to an **area** (Central Lazio, Rome and provincial districts) **where the two stakeholders virtually coincide**<sup>26</sup>; on the other hand, data referring to electricity and water service customers comprise all areas covered by the operating subsidiaries included in the basis of consolidation.

## THE ACEA GROUP CUSTOMERS

### ELECTRICITY AND GAS SERVICE CUSTOMERS

According to the latest data published by the Authority for electricity, gas and water<sup>27</sup>, **Acea Energia is Italy's fourth largest operator** in

terms of **volumes sold on the energy sale end-user market**, with a **3.9% market share**. Every year, depending on normal competitive patterns of the free market, Acea Energia manages to acquire new customers through its own marketing campaign, yielding at the same time a portion of its customer base to its main competitors. The changes occurred between 2014

and 2013 in the different energy market segments managed by Acea Energia show a **customer growth on on the free market-mass market** as a result of targeted new customer acquisition campaigns, consistent with the dual fuel (electricity and gas) customer base consolidation strategy.

TABLE 13 – ELECTRICITY AND GAS SALE: ACEA GROUP CUSTOMERS BY MARKET TYPE (2012-2014)

	2012	2013	2014
Enhanced protection market (Number of pick-up points)	1,088,701	1,071,557	1,023,316
Free market - mass market (Number of pick-up points)	236,652	224,733	293,737
Free market - large accounts (Number of pick-up points)	61,336	76,543	53,899
Free gas market (Number of redelivery points)	97,607	98,676	154,601

The Italian Regulatory Authority, in *Glossario della bolletta elettrica* (electricity bill glossary) (annex to Resolution 500/2013/R/COM) recommended the **definitions of the main liberalised energy market segments** (see box).

## ENERGY MARKET SEGMENTS

- **The enhanced protection market** - This is the electricity service supplied under financial and contract terms and conditions laid down by the Italian Regulatory Authority for Electricity Gas and Water. Household customers and small enterprises (with up to 50 employees and annual turnover not exceeding 10 million of euros) connected to the low voltage grid are eligible for **enhanced protection** service if they have never changed supplier or if they have once again requested those terms to be applied after having entered into contracts with other suppliers on the free market. The **enhanced protection** service conditions also apply to household customers and small enterprises who are left without a supplier, for example in the event that a supplier has gone bankrupt.
- **Free market** - On 1 July 2007, the energy market was liberalised. As a result, every customer can freely choose from which supplier and under which conditions they purchase electricity. The financial and contract conditions governing electricity supply in the free market are agreed upon directly between the parties and are not laid down by the Authority. In this case, the bill shows the wording "mercato libero" ("free market").

Source: AEEGSI, *Glossario della bolletta elettrica* (annex to Resolution No. 500/2013/R/COM dated 7 November 2013)

<sup>26</sup> In the area of Rome and provincial districts Acea runs the integrated water service, the supply of electricity (for more than 1 million customers), distribution of energy and public lighting service. As a result, customers and communities in this area virtually coincide. As to (economic and environmental) data pertaining to subsidiaries providing integrated water services in other areas, reference should be made to Water company data sheets.

<sup>27</sup> Reference should be made to the Annual report on the state of services and activities carried out, 2014 edition, Structure, pricing and quality in the electricity sector section available online on AEEGSI website. Furthermore, Acea is the second largest national operator in terms of volumes sold to customers in the enhanced protection market, with a 4.3% market share, and ranks fifth in terms of volumes sold to the free market, with a 3.8% market share.



## WATER SERVICE CUSTOMERS

Acea is **Italy's leading integrated water service operator** (catchment, supply, purification, wastewater collection and treatment) in terms of **population covered**, with a customer base of **around 8.5 million**

**inhabitants in Italy.** Acea, Rome water service long-standing operator, has progressively extended its reach, becoming the reference operator for other Optimum Areas of Operation (locally known as ATOs<sup>28</sup>) in the provinces of Rome and Frosinone (Lazio), Pisa, Florence, Siena,

Grosseto, Arezzo and Lucca (Tuscany), in the areas ranging from the Sorrento peninsula to Vesuvian towns in the provinces of Naples and Salerno (Campania) and in the area of Perugia and Terni (Umbria). The Group also operates in a number of South American countries<sup>29</sup>.

**TABLE 14 – CUSTOMERS AND INHABITANTS SERVED IN ITALY BY THE MAIN ACEA GROUP WATER COMPANIES (2013-2014)**

COMPANY	USERS SERVED		POPULATION SERVED	
	2013	2014	2013	2014
Acea Ato 2	590,499	591,580	3,700,000	3,655,900
Acea Ato 5	188,487	187,121	460,000	460,000
Gori	541,438	523,803	1,441,170	1,441,170
Acque	323,449 (*)	323,449 (**)	782,297 (*)	782,297 (**)
Publiacqua	384,290	385,968	1,229,691	1,229,691
Umbra Acque	230,439	230,849	501,351	506,999
Acquedotto del Fiora	234,286	234,156	407,469 (*)	407,469 (**)
<b>Total</b>	<b>2,492,888</b>	<b>2,476,926</b>	<b>8,521,978</b>	<b>8,483,526</b>

**Note:** The table also includes data relating to water subsidiaries that were consolidated in the financial statements using the shareholders' equity method.

(\*) 2013 figures were adjusted to reflect new data from updated databases.

(\*\*) 2014 figures are to be considered as temporary.

## PERCEIVED QUALITY

Acea entrusts a specialised independent company, selected by tender, with the administration of customer satisfaction surveys **to measure the level of customer and citizen satisfaction with regard to electricity, water<sup>30</sup> and public lighting services.**

The Institutional Relations Unit, in conjunction with the operating companies running the services, co-ordinates the customer satisfaction measurement process, following the different phases of the surveys: from drafting the questionnaires to selecting the samples to be

interviewed and then presenting and reporting the results to the top management.

**In 2014**, as was the case in previous years, **two six-month surveys were conducted** using a method<sup>31</sup> that allowed specific dimensions to be processed:

- **overall rating** on the general quality of the service (on a **scale of 1 to 10**), an index of the customers' "impulsive" rating;
- **summary satisfaction indexes**, both overall and referring to service dimensions surveyed (**Customer Satisfaction Index – Satisfied Customer CSI, index 0-100**)

based on the percentage of customers who stated they were satisfied and processed considering the customers' ratings regarding the individual aspects of the service;

- **satisfaction degree indexes**, both overall and referring to the service dimensions surveyed (**Customer Satisfaction Index – Satisfaction degree CSI, scale from 1 to 10**)<sup>32</sup>, measuring "how much" the customers were satisfied or not satisfied with the service.

28 The Italian territory, in compliance with Law No. 36/1994, known as the "Legge Galli", whereby water services were reorganised, is divided into 92 Optimum Areas of Operation (ATOs) based on water catchment areas. For information regarding ATOs where Acea operates through subsidiaries, reference should be made to the paragraph dedicated to the main Group Companies and the Water Company Sheets section under Corporate Identity.

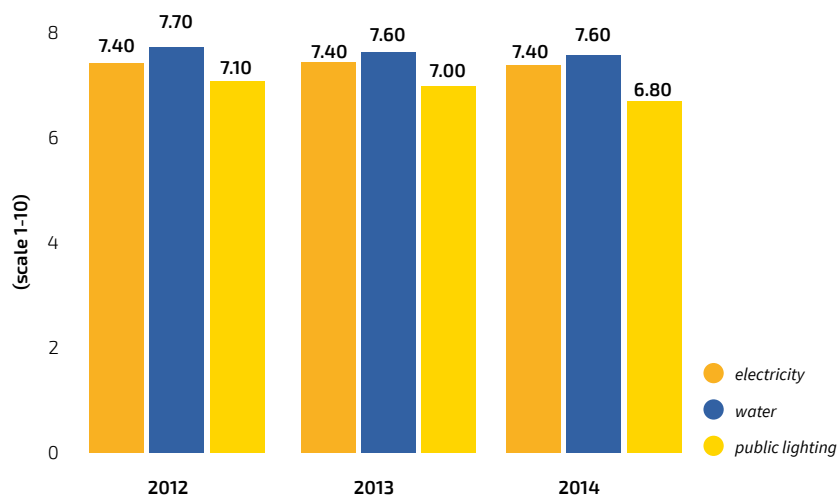
29 See Operations Abroad.

30 As to the water service, in addition to conducting surveys in Rome and other ATO 2 - Central Lazio municipalities, Acea SpA administered perceived-quality surveys to customers of other subsidiaries operating in Lazio, Campania, Tuscany and Umbria, sharing with such companies both the survey structure and the relevant outcome. As regards the year under review, the results of the feedback on perceived quality provided by customers of Acea Ato 5 (a wholly owned subsidiary of Acea SpA, just like Acea Ato 2, operating in the Lazio area) were also included in this paragraph.

31 CATI Method (Computer Assisted Telephone Interviewing), with the support of a structured questionnaire administered on a sample arranged on the basis of certain variables (such as place of residence, consumption brackets), with a maximum statistic error of 2.8% and a level of significance of 95%. It is further stressed that surveys regarding "contact channels" were administered to customers selected with the "call back" method, that is people who had recently used telephone services (free toll number to seek commercial information or report faults) or had contacted the helpdesk or sought technical assistance, agreeing to be called back.

32 Satisfaction degree CSI indexes were created based on the average score of satisfaction and the weight assigned to each aspect.

**CHART 11 - OVERALL RATINGS ON THE SERVICES SUPPLIED (2012-2014)**



**Note:** The values represent the average of the two six-monthly surveys for each year. Water service ratings refer to Acea Ato 2 only.

### ELECTRICITY SERVICE RATING

The quality perceived by customers using the electricity supply service was measured through telephone interviews conducted in June/July and November/December 2014 involving an overall sample of 7,806 people representing customers of the enhanced protection market and

free market: 4,202 for energy sale-related aspects pertaining to Acea Energia and 3,604 for technical and management aspects relating to the energy distribution grid managed by Acea Distribuzione. The overall rating on the electricity service with regard to both technical and sales-related

aspects remained satisfactory and in line with the previous year. As a whole, satisfaction was high and even increased compared to 2013, while the percentage of those interviewed who judged the service as between sufficient and excellent reached 90.5% (Grid 93%, Sales 88%) (see Table 15).

**TABLE 15 - OVERALL RATING ON THE ELECTRICITY SERVICE (2013-2014)**

RATING	SCORES FROM 1 TO 10	2013 (AVERAGE OF THE TWO SIX-MONTH PERIODS)		2014 (AVERAGE OF THE TWO SIX-MONTH PERIODS)	
		GRID	SALES	GRID	SALES
Excellent	9 - 10	25.0%	15.5%	24.5%	15.0%
Good	8	37.5%	36.0%	39.0%	38.0%
Sufficient	6 - 7	29.0%	35.0%	29.5%	35.0%
Insufficient	1 - 5	8.5%	13.5%	7.0%	12.0%
<b>Total average</b>		<b>7.6</b>	<b>7.1</b>	<b>7.6</b>	<b>7.2</b>

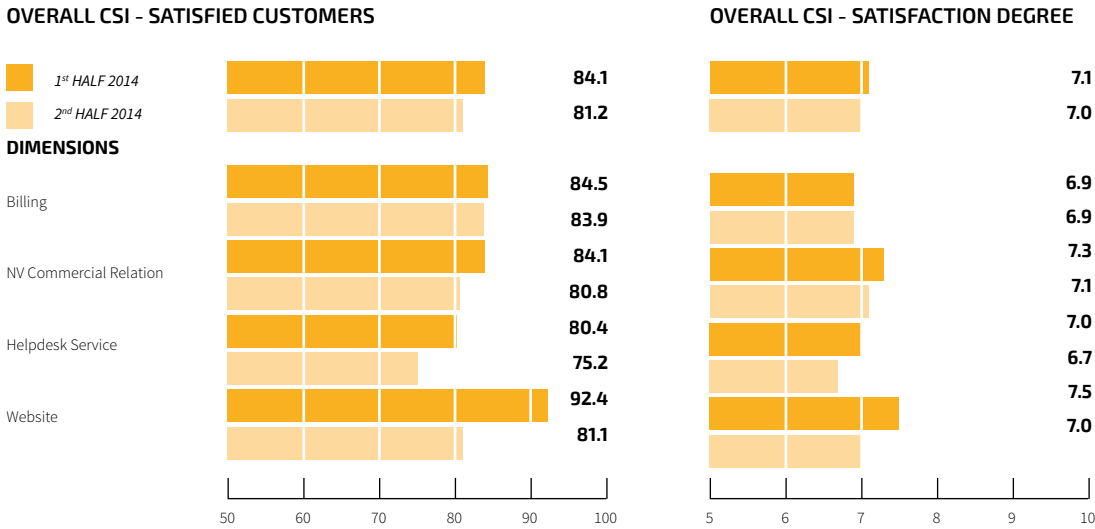
The results of both six-month surveys on energy sales activities (commercial and contact management) referring to the customers of the enhanced protection market showed an overall good satisfaction index - 82.65 out of 100 as an average between the two surveys, with an increase compared to the 79.55 figure reached in 2013. The satisfaction degree also showed a slight increase, reaching 7.05 out of 10; satisfaction indexes relating to all four service dimensions surveyed also increased, with special reference to "billing" (from an average of 81.8 to 84.2) and "website"

(from 78.6 to 86.8) (see Chart 12). The ratings awarded to the individual quality factors of the service that the respondents considered as most important proved high, with the "billing" item showing an increase in the percentages of customers stating they were satisfied<sup>33</sup> with the "accuracy of the amounts shown" (85%, as an average of the two surveys) and "bill readability" (82%). As regard the "commercial toll-free number", the percentage of customers satisfied with the "operator's problem-solving skills" rose to 77%, while "thoroughness of the answers"

remained good (78%). With regard to the two most important quality factors pertaining to the "helpdesk service", "operators' competence" was rated at 78.5%, while "waiting time" reached 64.5%; although the latter's level of satisfaction was not quite adequate yet, it nonetheless showed an increase compared to 58.5% in 2013. Finally, regarding the "website" item, the "range of operations available online" met the satisfaction of 77.5% of the respondents, while the "ease of navigation" reached 86%, showing a strong increase compared to 76.5% in the previous year.

<sup>33</sup> For a better understanding of the percentage of satisfied respondents, a figure of 75% or above (threshold level) can be considered as an adequate customer satisfaction index.

**CHART 12 - ELECTRICITY SERVICE - ENHANCED PROTECTION MARKET SALES: SATISFIED CUSTOMER CSI AND SATISFACTION DEGREE CSI - BOTH OVERALL AND ON DIMENSIONS SURVEYED (1<sup>ST</sup> AND 2<sup>ND</sup> HALF 2014)**

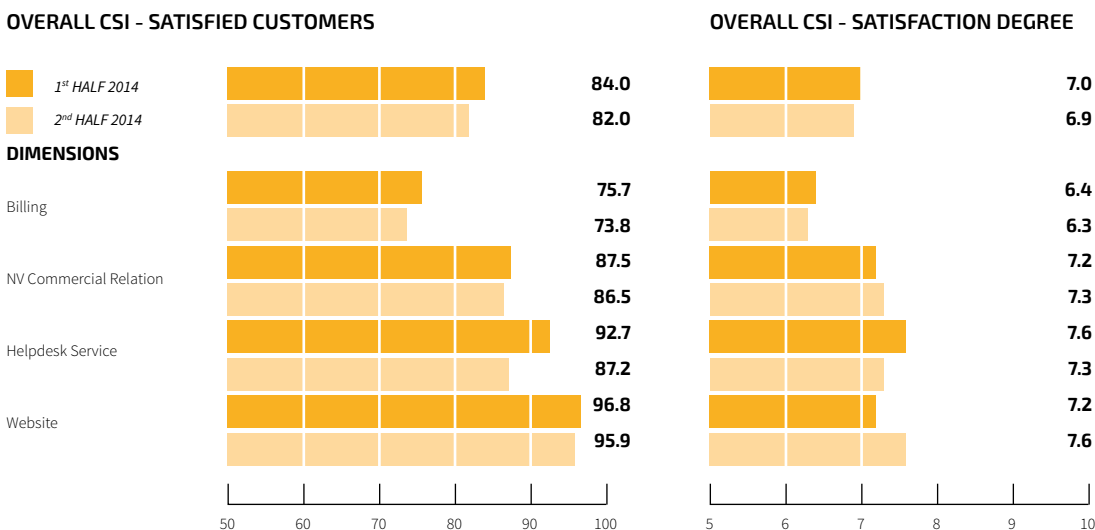


Within the free market, the overall satisfaction index on the sales service was 83 out of 100, showing a considerable increase compared to 71.45 in 2013, while the satisfaction degree was 6.95 out of 10 (compared to an average of 6.3 in 2013). The satisfaction indexes concerning all service dimensions surveyed showed an uptrend, with special reference to the commercial free-toll number and helpdesk service (which rose from 71.4 in 2013 to 87 - as an average of 2014 surveys - and from 71.7 to 90, respectively); the satisfaction index relating to the website rose to 96.3 out of 100 (see Chart 13).

Regarding the most important service quality factors within the “billing” item, the customers of the free market rated as adequate their level of satisfaction with the “accuracy of the amounts shown” (76% of customers satisfied, showing a sharp increase compared to 68% in 2013), while bill readability did not meet full satisfaction (70%) but increased all the same compared to 66% in the previous year. As to the commercial toll-free number, the percentage of satisfied customers in respect of the two most important items increased considerably: “operators’ problem-solving skills” were

rated at 82% (67.5% in 2013) and “thoroughness of the answers” rose to 84% (71% in 2013); with regard to the helpdesk service, the “operators’ competence” rose to 91% (from a respectful 75.5% in the previous year), with “waiting time” reaching full satisfaction with an average of 83.5% of satisfied respondents, compared to 57% in the previous year. Finally, website ratings proved excellent: with “range of operations available” and “thoroughness of information available on the site” reaching 95% and 96%, respectively.

**CHART 13 - ELECTRICITY SERVICE – FREE MARKET SALES: SATISFIED CUSTOMER CSI AND SATISFACTION DEGREE CSI - BOTH OVERALL AND ON DIMENSIONS SURVEYED (1<sup>ST</sup> AND 2<sup>ND</sup> HALF 2014)**



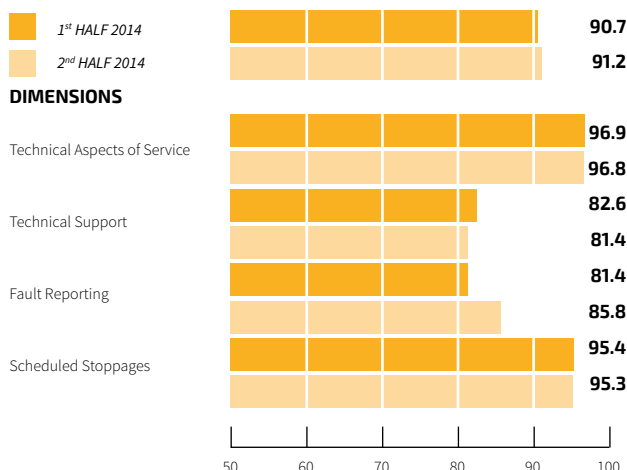
With regard to energy distribution operations (grid), the overall indexes of the surveys conducted on customer satisfaction showed a

very high level of appreciation (90.9 out of 100) and a satisfaction degree of 7.5 out of 10. As was the case in the previous year, all four

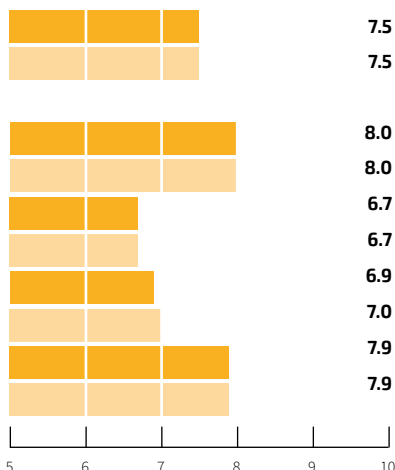
dimensions surveyed received very positive ratings (see Chart 14).

**CHART 14 - ELECTRICITY SERVICE - GRID: SATISFIED CUSTOMER CSI AND SATISFACTION DEGREE CSI - BOTH OVERALL AND ON DIMENSIONS SURVEYED (1<sup>ST</sup> AND 2<sup>ND</sup> HALF 2014)**

**OVERALL CSI - SATISFIED CUSTOMERS**



**OVERALL CSI - SATISFACTION DEGREE**



The percentages of customers satisfied with the quality factors considered as most important with regard to the electricity distribution service (grid) were high. More specifically, regarding the “technical aspects”, “service uptime” reached 97% as an average of the two six-month period, while “voltage consistency” stood at 96%. As to the “technical support” item, the respondents rated troubleshooting “efficiency” and “response time” positively to the extent of 81% and 82%, respectively. With regard to fault reporting, “service

resumption waiting time” met the satisfaction of 78.5% of the respondents, while “thoroughness of the answers” reached 86%. Finally, regarding scheduled service interruption, “accuracy of information about service resumption time” and “notice before service disruption” met the satisfaction of the respondents to the extent of 95.5% and 95%, respectively.

**PUBLIC LIGHTING SYSTEM RATING**

In April and November 2014, surveys were conducted on the quality of the public lighting

service as perceived by the citizens of Rome. Telephone interviews involved an overall sample of 2,012 inhabitants representing the 15 municipalities of the city, which were grouped into three urban macro-areas: central-north, east-southeast, south-west Rome. The overall rating remained fully satisfactory, with 80.5% of the respondents rating the service between sufficient and excellent (6-10) (see Table 16).

**TABLE 16 – OVERALL RATING ON PUBLIC LIGHTING IN ROME (2012-2014)**

RATING	SCORES FROM 1 TO 10	2013 (AVERAGE OF THE TWO SIX-MONTH PERIODS)	2014 (AVERAGE OF THE TWO SIX-MONTH PERIODS)
Excellent	9 - 10	13.5%	10.5%
Good	8	28.5%	25.5%
Sufficient	6 - 7	44.0%	44.5%
Insufficient	1 - 5	14.0%	19.5%
<b>Total average</b>		<b>7.05</b>	<b>6.8</b>

The survey concerned 2 dimensions of the public lighting service: technical aspects and toll-free number for fault reporting. With regard to the “technical aspects of the service”, differentiation was made between aspects pertaining directly to Acea operations - lighting service uptime (i.e., absence of failures or disruptions across the city); switching on and off times and the colour of the lights - and aspects dependent on other parties<sup>34</sup> - service availability and extension; lighting intensity in streets, parks, gardens and monuments.

The results of the two six-month surveys disclosed a good satisfaction index overall (77.7 out of 100) albeit showing a slight decrease compared to the previous year (83.6) and a fair satisfaction degree (6.6 out of 10). In fact, the latter showed a downtrend in each of the service dimensions

surveyed, with special emphasis on fault reporting, though a significant improvement was observed between the first and second half (see Chart 15).

With regard to the service quality factors the respondents considered as most important within the technical aspects pertaining to Acea Illuminazione Pubblica operations, “lighting service uptime” scored a 78% satisfaction rating as an average of the two six-month periods<sup>35</sup>, continuing to receive a full satisfactory rating despite a slight drop compared to 2013 (83.5%). The “colour of the lights” item was given an 87.5% satisfaction rating. An in-depth analysis aimed at identifying the most appreciated colour of the lights showed that 44.5% of the respondents preferred a “white light” and 28.5% preferred a “yellow light”, while the remaining 26.5%

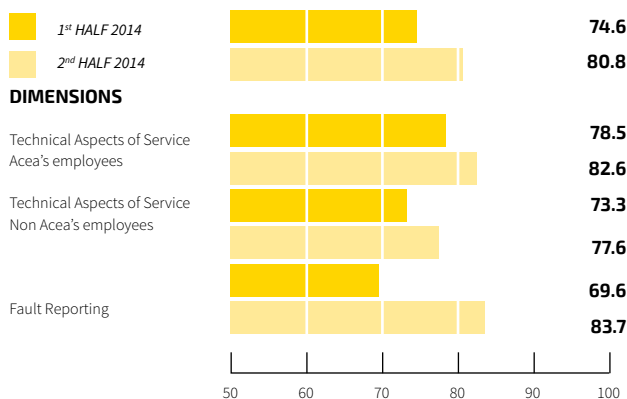
appreciated both. Within the technical aspects not directly related to the Company, the rating awarded to “intensity of the street lighting” did not reach an adequate level of satisfaction (73.5%, compared to 80% in 2013), while the percentage of satisfied customers regarding “service availability and extension” stood at 79.5%, reaching again a good level despite a slight drop compared to the previous year (84%). Finally, the factors considered as most important within the “fault reporting” item, i.e. “operators’ competence” and “telephone line availability” scored an average percentage of satisfied customers between the two six-month period of 78.5% and 71%, respectively, both showing a drop compared to 2013 figures but on the rise in the second half.

<sup>34</sup> Indeed, public lighting operations across the urban territory are carried out based on the instructions given by the Municipality of Rome, for whom Acea delivers the service. The lighting intensity of streets, pavements, parks and gardens can also be affected by factors that do not depend on business operations, such as the presence of foliage pending tree pruning.

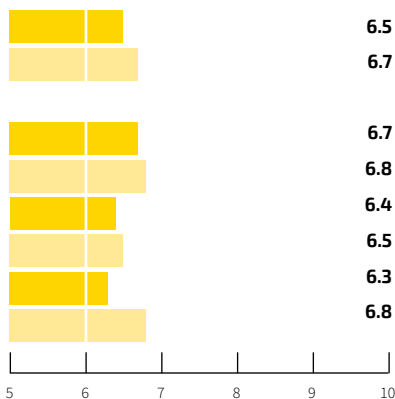
<sup>35</sup> 75% or above (threshold level) is the percentage indicating adequate customer satisfaction.

**CHART 15 - PUBLIC LIGHTING SERVICE: SATISFIED CUSTOMER CSI AND SATISFACTION DEGREE CSI - BOTH OVERALL AND ON DIMENSIONS SURVEYED (1<sup>ST</sup> AND 2<sup>ND</sup> HALF 2014)**

**OVERALL CSI - SATISFIED CUSTOMERS**



**OVERALL CSI - SATISFACTION DEGREE**



**WATER SERVICE RATING**

This year the results of the surveys conducted on **customer satisfaction across the entire Lazio area where Acea runs its Integrated Water Service (IWS) were presented for the first time, including** : the city of Rome and provincial districts operated by **Acea Ato 2** (wholly owned by Acea SpA) with a customer base totalling about 3.7 million inhabitants, the area

of Frosinone and provincial districts operated by **Acea Ato 5** (wholly owned by Acea SpA) with a customer base totalling about 460,000 inhabitants<sup>36</sup>.

The surveys conducted on the **water service quality perceived by Acea Ato 2 customers** were administered in May/June and October/November 2014 through telephone interviews

involving a sample totalling **2,811 residents in the Rome and Fiumicino municipalities**, comprising **household customers and condominium managers**.

The **overall opinion** on the water service **proved more than satisfactory** and in line with the previous year, with **95%** of the respondents rating it **between sufficient and excellent** (see Table 17).

**TABLE 17 - OVERALL RATING OF THE WATER SUPPLY SERVICE IN ROME (2013-2014)**

RATING	SCORES FROM 1 TO 10	2013 (AVERAGE OF THE TWO SIX-MONTH PERIODS)	2014 (AVERAGE OF THE TWO SIX-MONTH PERIODS)
Excellent	9 - 10	16.5%	19.0%
Good	8	41.0%	40.0%
Sufficient	6 - 7	38.5%	36.0%
Insufficient	1 - 5	4.0%	5.0%
<b>Total average</b>		<b>7.6</b>	<b>7.6</b>

The **overall satisfaction index**, as an average of the two six-month surveys, was **88.5** out of 100, showing a **high level of appreciation** for the service (up compared to 86% in the previous year), while the degree of satisfaction was 7.4 out of 10, in line with 2013. The already positive ratings of all service dimensions showed an increase during the year. In this connection, special reference is made to the fault reporting dimension (the only one that in 2013 scored a satisfaction index of 68.7 out of 100), as in the year under review it rose to 80.9 (see Chart 16).

The **percentages of satisfied customers<sup>37</sup> in respect of the most important service quality factors** within each dimension showed - within the technical aspects - **the excellent ratings awarded to water service supply**

**uptime**, with 99% of the respondents stating their satisfaction as an average of the two six-month surveys, and **“water pressure level”**, (93.5%). Within the technical support dimension, 73% of the respondents stated their satisfaction with **“troubleshooting response time”**, showing an increase compared to 69.5% in 2013, while **“troubleshooting effectiveness and efficiency”** reached 85%. With regard to the billing dimension, the two main items **“accuracy of amounts shown”** and **“regular meter reading”**, satisfaction was rated at 88.5% and 82%, respectively. As to the fault reporting dimension, a sharp rise was observed in the two factors considered as most significant **“operators’ competence”**, increasing from 67.5% in 2013 to 83% in 2014, and **“waiting**

**time”**, rising from 62% to 74%. The same quality factors (i.e., competence and waiting time) within the commercial toll-free number dimension scored 87.5% and 76.5%, respectively. With regard to the helpdesk dimension, **“operators’ competence”** was rated as satisfactory by 91% of the respondents, while **“turnaround time”** stood at 90.5%. Finally, an **in-depth analysis of the website** showed very good results on all dimensions surveyed, with special emphasis on the two main dimensions: **“range of operations available online”** (89% of respondents were satisfied) and **“thoroughness of information available on the site”** (91.5%).

<sup>36</sup> This was in line with the new accounting standards that caused the Group basis of consolidation to be redefined in the financial statements (see Corporate Identity, under Group Profile).

<sup>37</sup> 75% or above (threshold level) is the percentage indicating adequate customer satisfaction.

**CHART 16 - ACEA ATO 2 WATER SERVICE: SATISFIED CUSTOMER CSI AND SATISFACTION DEGREE CSI - BOTH OVERALL AND ON DIMENSIONS SURVEYED (1<sup>ST</sup> AND 2<sup>ND</sup> HALF 2014)**



**SURVEYS ON CUSTOMER SATISFACTION WITH WATER SERVICE DELIVERED IN OTHER ATO 2 MUNICIPALITIES – CENTRAL LAZIO**

In addition to Rome and Fiumicino, surveys aimed at measuring customer satisfaction with the water service delivered were conducted in other municipalities located in the Province of Rome. In 2014, the two six-month surveys involved a sample representing the household users in the municipalities covered by ATO 2 - Central Lazio, divided into the four relevant customer bases (i.e., north, east, south and west). As a whole, 2,005 residents were interviewed in the municipalities of Monterotondo, Tivoli, Guidonia Montecelio, Albano Laziale, Frascati and Cerveteri. The overall rating was 7 out of 10, proving stable as compared to 2013.

As regards the Frosinone area, surveys on water service quality perceived by the customers of Acea Ato 5 were conducted in May/June and November/December 2014 through telephone interviews involving an overall

sample of 3,518 residents in the municipalities reached by ATO 5 - Frosinone (more specifically, Anagni, Frosinone, Isola del Liri, Pontecorvo and Cassino) consisting of direct supply household customers.

In line with the previous year, the overall opinion on the water service proved to be slightly above satisfactory, with 75.5% of the respondent rating it between sufficient and excellent (see Table 18).

**TABLE 18 - OVERALL RATING OF THE WATER SUPPLY SERVICE RUN BY ACEA ATO 5 (2013-2014)**

RATING	SCORES FROM 1 TO 10	2013 (AVERAGE OF THE TWO SIX-MONTH PERIODS)	2014 (AVERAGE OF THE TWO SIX-MONTH PERIODS)
Excellent	9 - 10	6.5%	6%
Good	8	22.0%	20.0%
Sufficient	6 - 7	46.0%	49.5%
Insufficient	1 - 5	25.5%	24.5%
<b>Total average</b>		<b>6.3</b>	<b>6.3</b>

The results of the two six-month surveys showed service appreciation, with an overall satisfaction index of 79.8 out of 100, in line with the previous year, while satisfaction degree stood at 6.9 out of 10, showing a slight increase. As compared to 2013, the ratings on some of the service dimensions surveyed (e.g. commercial contact channels and fault reporting) showed a slight downtrend, even though they continued to

reach good levels, while the levels of satisfaction relating to the technical aspects of the service and technical support improved (see Chart 17). In respect of the technical aspects, the percentages of customers satisfied<sup>38</sup> with the main service quality factors within each dimension showed adequate satisfaction with supply uptime (75%) and “water pressure level” (79%) (both

on the rise compared to 71% and 73.5% as measured in 2013). A further increase was observed in the already high percentages of satisfaction with the two factors considered as most important within the technical support dimension: “troubleshooting response time” (83.5% compared to 79% in 2013) and “troubleshooting effectiveness and efficiency” (91.5% compared to 88.5%).

38 75% or above (threshold level) is the percentage indicating adequate customer satisfaction.

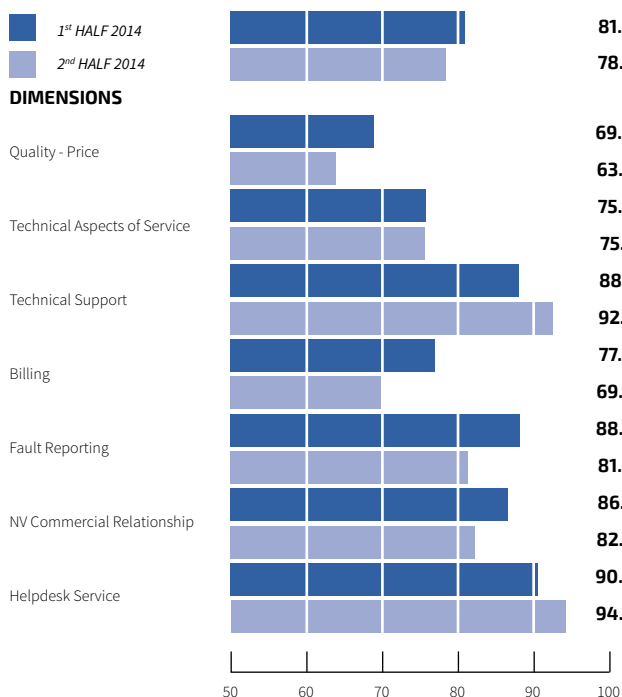
With regard to the billing dimension, a slight drop was observed in the level of satisfaction relating to the two main items: “**accuracy of amounts shown**” (76% compared to 79% in 2013) and “**regular meter reading**” (66% compared to 69% in the previous year). The **three contact channel areas** showed a similar trend in respect of the two items considered as most important:

“**operators’ competence**” and “**waiting time**”. While **the former showed very high levels of satisfaction** (87.5% for fault reporting, 89.5% for toll-free and 96% for helpdesk operators’ competence), **the latter’s percentages of satisfaction decreased** (76% for fault reporting, 72% for toll-free and 80 for helpdesk waiting time).

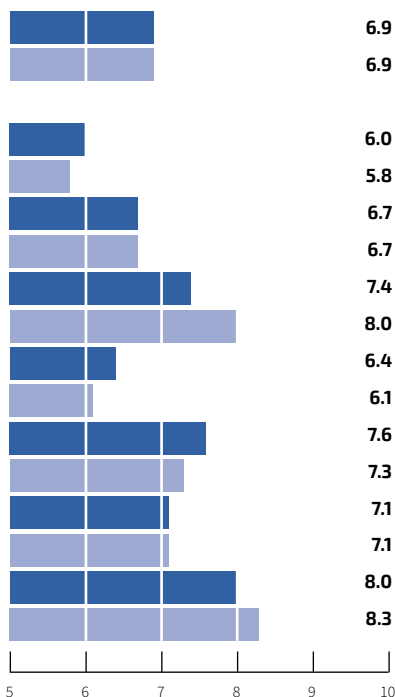
An in-depth analysis on the website confirmed **very high percentages of customer satisfaction** in respect of all dimensions surveyed, with special emphasis on the two main dimensions: “**thoroughness of information available on the site**” (93%) and “**range of operations available online**” (93.5%).

**CHART 17 - ACEA ATO 5 WATER SERVICE: SATISFIED CUSTOMER CSI AND SATISFACTION DEGREE CSI - BOTH OVERALL AND ON DIMENSIONS SURVEYED (1<sup>ST</sup> AND 2<sup>ND</sup> HALF 2014)**

**OVERALL CSI - SATISFIED CUSTOMERS**



**OVERALL CSI - SATISFACTION DEGREE**



**LEVEL OF QUALITY DELIVERED**

Every year, Acea relies on the operating companies to carry out actions **aimed at increasing or improving capabilities** (grids and plants), **optimizing their operation** and **ensuring more effective and prompt service resumption in the event of failures** in order to **constantly improve the final quality of the services provided**. The Company is likewise highly focused on the **processes that help improve the way customers are reached**, training dedicated staff and implementing appropriate commercial management systems for this very purpose.

More specifically, **in 2014** Acea decided to make a **significant investment in technological innovation** centred on the upgrading, modernisation and harmonisation of information systems that support key business areas through a project known as **ACEA2PUNTOZERO**. The project will be rolled out over the next two years and it is expected to positively impact **most of the Group operating processes**: from work organisation to customer contact management (also see detailed box in *Corporate Governance and Management Systems and Institutions and the Company*).

Constant **monitoring and performance**

**activities** further contribute to controlling the quality of the services supplied and planning improvement actions.

A number of “supplied quality” factors are measured on the basis of criteria established by the relevant Authorities or set out in service contracts and management agreements entered into with the local authorities:

- the **technical and commercial quality standards in the energy sector** - relating to both distribution and sale - **and the water sector are defined** by a sole National Authority - the **Italian Regulatory Authority for Electricity Gas and Water (AEEGSI)**. More specifically, regulatory provisions for the water sector are being issued gradually, inasmuch as it has been governed by the aforesaid Authority since 2012. Therefore, pending the definition of all regulatory provisions on quality, reference is made to the Service Charter, the User Regulations and other quality standards set forth in the Operating Agreements that govern relationships between the operator and the relevant Authority (locally known as AATO, Autorità degli Ambiti Territoriali Ottimali);
- for the **public lighting service**, the

agreement entered into between Acea and the Public Administration also governs quality standards - i.e., performance standards.

The Company is required to comply with the quality standards established by the counterparts, such standards also contemplating **incentive systems with bonuses for good performances and penalties in the event of failure to comply therewith**. Customers are also entitled to automatic compensation in the event that service quality standards are not met. As illustrated hereafter, both Acea SpA and its operating companies operate in compliance with Certified Management Systems (also see *Corporate Identity, Management Systems*).

**QUALITY IN THE ENERGY SECTOR**

**Acea Distribuzione**, in its capacity as holder of the ministerial licence for operation of the **electricity distribution service in the area of Rome and Formello**, plans and carries out **modernisation and extension work for its infrastructure**, comprising high, medium and low voltage electricity lines, stations and sub-stations, systems for remote control and for measuring energy withdrawn from and fed into the grid.

Acea Distribuzione is Italy’s **third largest**

**operator** in terms of volumes of electricity distributed<sup>39</sup>. The Company is certified in compliance with the UNI EN ISO 9001:2008 (**Quality**), UNI EN ISO 14001:2004 (**Environment**), OHSAS 18001:2007 (**Safety**) and UNI EN ISO 50001:2011 (**Energy**) standards, consistent with its high focus on operating procedures. As regards contracts awarded, Acea Distribuzione has adopted a **system to control and monitor quality, ensure compliance with environmental and work safety policies** through checks performed by a dedicated Business Unit (see relevant box in **Vendor Rating** under *Suppliers*).

Work on infrastructure aimed both at gradually **improving the quality of the service** in compliance with the challenging objectives set by AEEGSI and increasing the energy efficiency of the grids is performed in accordance with licence provisions, industry regulations (i.e., law provisions and AEEGSI Resolutions) and service requirements, with special reference to the connection of new customers related to urban expansion and the increase in electricity uses. Consistent with the 2014-2018 business plan, Acea Distribuzione started **works for the upgrading of energy infrastructure and technology innovation projects**.

The former include **works for the implementation of the MV Regulation Plan** (see relevant box), **construction, modernisation and routine and extraordinary maintenance of primary stations, HV lines, substations and LV grid**, the purpose being to increase service uptime (see box dedicated to the main actions taken for the operation and development of electric grids and stations).

#### ACTIONS FOR THE IMPLEMENTATION OF THE MV REGULATION PLAN

The actions for the implementation of the MV Regulation Plan, which are expected to be completed by 2020-2025 - with due account also being taken of the interferences connected with the underlying highly urbanised environment - are aimed at ensuring both a high electricity service quality standard, as required by the national industry Authority, as well as investment and service operation cost effectiveness.

The Plan contemplates the **deployment of new backbones with a view to rationalising and upgrading the grid** and, at the same time, **changing its voltage from 8.4 kV to 20 kV**.

Switching to a higher voltage will **significantly increase the grid transportation capacity** while **reducing energy losses and voltage drops**. Moreover, increasing the transportation capacity of each line will - load being equal - ensure a significant reduction in the total length of the grid and adequate residual power for new connections. In 2014, a total of **28 MV Regulation Plan implementation actions were completed**: 5 in the Centre-North area, 10 in the East-South-East area and 13 in the South-West area across the Roma Capitale territory.

#### MAIN ACTIONS FOR THE OPERATION AND DEVELOPMENT OF ELECTRICITY GRIDS AND STATIONS (2014)

<b>HV Lines and Primary Stations</b>	<p>Following the burial of 150 kV overhead electricity lines at “Tor Cervara-San Basilio” and “San Basilio-Smistamento Est” in the Casal Monastero area in 2013, the demolition of the replaced overhead line sections was also completed. Likewise, following the burial of the “Cassia –Ottavia” line, the demolition of the overhead line sections near the city Ring Road (G.R.A.) was completed.</p> <p>Considering <b>as a whole</b> both the aforesaid works as well as the “Vitinia – Casal Palocco” underground connection and 150 kV upgrading project, <b>12.5 km of HV overhead lines were removed during the year</b>.</p> <p>The <b>new Torrenova primary station</b>, which was built last year, has been <b>commissioned</b>, with plant finishing works being completed.</p> <p>The laying of 150 kV cables to connect <b>Cecchignola primary station (PS)</b> to Laurentina PS-Capannelle PS existing line was completed, with commissioning being expected in 2016.</p> <p>Work for the <b>reconstruction of the “Roma Nord-Prati Fiscali” 150 kV overhead line was started in order to increase its range</b>.</p> <p>Moreover, <b>in 2014 work for the upgrading, extension and reconstruction of additional 10 primary stations was carried out</b>. The installation of the <b>Petersen system</b> was started at the primary stations located in Cinecittà/O, Settebagni and Prenestina (where the existing system will be extended) and completed at the Fiera di Roma and Parchi primary stations, <b>such system significantly reducing network failures</b>. Work at Cesano primary station of Enel Distribuzione powering Acea Distribuzione MV electricity lines was completed, with the system being tested and commissioned. <b>Therefore, at 31/12/2014, the Petersen system was installed in 53 out of a total of 70 primary stations</b>.</p> <p>Finally, <b>routine and extraordinary maintenance</b> was performed on primary substation equipment, with special reference to 115 HV switches; <b>scheduled maintenance</b> was performed on 704 MV switches; <b>14 on-load tap changers</b> of power transformers were overhauled and 3 HV switches and 24 HV voltage transformers were replaced.</p>
<b>Protection and measures for MV and HV lines</b>	<p>Technical operations were carried out to arrange, calibrate and commission <b>power protection systems for 42 new MV line bays</b>. <b>Work was also completed on power protection systems</b> installed in primary stations for operation testing purposes (58 HV towers, 443 MV towers, 71 HV/MV and MV/MV transformers).</p> <p>A grid analyser was installed to check voltage quality at a MV customer location. <b>258 measuring equipment units on primary station MV bars</b> were commissioned for the <b>Voltage Quality Monitoring System</b> (pursuant to ARG/elt Resolution No. 198/11).</p> <p><b>Ground resistance was measured in 2,690 substations</b>. Step and touch voltage and total ground resistance were also measured in 38 primary stations and 159 substations. Electrical protection and automated elements for the activation of the Petersen systems were installed in 4 primary stations.</p>
<b>MV and LV Lines</b>	<p>Approximately <b>217 km of 20 kV MV underground cables</b> (191 km relating to refurbishment and 26 km to extension) <b>were laid for network modernisation and upgrading purposes</b>.</p> <p>As part of <b>extraordinary maintenance work</b> on MV overhead lines, <b>84 operations</b> were carried out for the replacement of equipment, supports, conductors, etc.; <b>the MV overhead line, totalling 533 km, was inspected</b> to check its maintenance and operating status.</p> <p>Refurbishing and extension work aimed at replacing obsolete parts or upgrading inadequate parts <b>entailed deploying around 171 km of LV cables</b> (105.3 km relating to refurbishing and 65.7 km to extension).</p> <p>Activities completed to <b>improve service quality</b> included <b>229 network refurbishing operations</b>.</p> <p><b>Voltage switch operations</b> were carried out on the LV network (from 220 V to 380 V), involving 12,177 customers.</p>

<sup>39</sup> Reference should be made to the Annual report on the state of services and activities carried out, 2014 edition, Structure, pricing and quality in the electricity sector section available online on AEEGSI website.



<b>Substations (MV and LV) and remote control</b>	<p>To meet the demand for new connections to the grid and the applications for increases in voltage filed by existing customers, <b>129 substations were built or extended.</b></p> <p><b>1,031 operating stations were (totally or partially) rebuilt</b> to upgrade them to 20 kV, make them remote control-ready or upgrade their equipment.</p> <p>Furthermore, the following activities were completed on substations: <b>932 extraordinary maintenance operations, 107 routine maintenance operations and 3,713 inspections</b> to check the maintenance and operating status of equipment and premises.</p> <p><b>Remote control was extended</b> to a further 360 substations and 205 reclosers, with <b>remote controlled MV nodes</b> at 31/12/2014 totalling 5,776 units, of which 144 pole-motorised switches and 360 reclosers. Finally, 3,542 maintenance operations were completed.</p>
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With respect to **technological innovation**, over the past few years **Acea Distribuzione has been developing state-of-the-art plans** in the area of **"smart grids", advanced grid management systems** and, in conjunction with other industrial and institutional partners, the broader **"smart city" area**. More specifically, these plans relate to **Smart Grid, RoMA** (Resilience Enhancement of Metropolitan Area) and **SnMS (Smart-network Management System)** projects, with more detailed information provided in other sections of the Report, to which reference should be made (see Energy Distribution: networks and "smart grids" under Environmental Issues, Energy Area). As part of the SnMS project, some sub-projects were devised and should be highlighted, such as the **SGI (Smart Grid Intelligence) system**,

which will allow the network to be monitored in order to prevent service disruption events and the **Low Voltage Network Optimisation (ORBT, Ottimizzazione della Rete di Bassa Tensione) project** for detecting critical operating conditions of individual network sections and identifying adjustments that can maximise their operation. Following completion of the on-field stage, the **Distributed Storage** project continued on a medium voltage backbone to build three storage systems in as many substations, at present on an experimental and small scale basis. These systems are fitted with local intelligence for the management of energy delivered to the relevant LV users. One of the goals is to see whether it is possible to reduce service disruption and curb power peaks associated to end users by

withdrawing energy available in the storage systems and managing the energy produced from an associated photovoltaic system. With regard to projects connected with the development of **electric mobility in Rome**, following agreements entered into between Acea Distribuzione, Enel and the Municipality of Rome in previous years, the project continued and is awaiting revision - by the three signatory parties - of the installation sites of the charging stations for the electric vehicles originally planned (in 2013, Acea Distribuzione installed the first 12 charging stations out of the 100 lying within its province). Ongoing initiatives include in particular the **memorandum of understanding signed by Acea, Telecom and Fastweb** for the **extension of the "ultra-broadband" fibre optic network in Rome** (see updating box).

#### SUPERFAST INTERNET IN ROME: STATUS AT 2014

The operations under the memorandum of understanding entered into in 2013 with Fastweb and Telecom to extend the ultra-broadband network across the Municipality of Rome, reaching connection speeds up to 100 Mbit/s, continued. The MoU guarantees the coordination of operations among the three companies while minimising any inconvenience the citizens may face as a result of road works. 4,600 new electricity supply points will be rolled out approximately, applying techniques that minimise the environmental impact when deploying capabilities, such as *no-dig* (i.e., laying optic fibre without open-air trenches) and mini trenches that minimise excavation work. At **31/12/2014**, Acea Distribuzione **commissioned 2,500 new electricity supply points**, totalling 38.2 km of excavation.

Finally, **work to install remotely-controlled digital metres** for LV customers continued, with additional **42,308** devices (of which 10,696 referring to new installations and 31,612 to replacement of existing metres), **totalling about 1.6 million metres installed at 31/12/2014** (98.2% of customers).

#### THE QUALITY LEVELS REGULATED BY THE AEEGSI

The **electricity service quality standards** as related to **commercial aspects** (i.e., quotes, work, supply activation/deactivation, replies to complaints) and **technical aspects** (supply uptime) **are established** at a national level by the **Authority for Electricity, Gas and Water (AEEGSI)**, who reviews them on a regular basis, gradually introducing more stringent standards. The Authority issued Resolutions<sup>40</sup>, currently in force, aimed at **regulating the quality of the distribution, metering and transmission services for the 4<sup>th</sup> 2012-2015 regulation period**, as well as the quality of electricity and gas sale services.

The regulatory framework requires that customers be indemnified in the event certain quality standards are not met and comprises a fine/bonus system applicable to service operators, so as to encourage them to continually improve their

performances.

The **commercial quality** aspects of the service consist of **"specific" levels** and **"general" levels**<sup>41</sup> applicable to the operations pertaining to the **electricity distribution company** (divided into low and medium voltage supplies) as well as operations pertaining to the **selling company** (see Tables 19, 22-26). A quality criterion also governs the timely communication of technical data between the energy distributor and seller (see Table 19). Every year **Acea submits the results achieved to AEEGSI for review and then notifies such results to its own customers**, as required, by attaching them to the bill.

Electricity distribution and metering activities are carried out by **Acea Distribuzione; 2014 performances** relating to the **"specific" levels of commercial quality**, both for low voltage supplies to households and other customers and

<sup>40</sup> More specifically, Resolution ARG/elt No. 198/11, as amended, governing the quality of electricity distribution and metering services pertaining to the distribution company, and Resolution ARG/elt No. 164/08, as amended, governing the quality of electricity and natural gas sale services.

<sup>41</sup> "Specific quality standards" are defined as the deadline within which the service provider must provide a given service and, in the event of non-compliance, they require that automatic compensation is granted to customers. "General quality standards" are defined as the minimum percentage of services to be provided within a given deadline.

medium voltage supplies, **were undergoing final processing<sup>42</sup> at the time this Report was published**; however, by way of indication and where possible, **the average estimated time for service provision** and the related percentages of deadline compliance are shown (see Table 19).

Albeit not yet final, the figures indicate that every performance basically complied with the **deadlines** set by the standards.

Likewise, an overview is provided in respect of the trend of the **"general" levels of commercial quality** for **distribution and metering** activities (see Table 24) and the two specific quality levels governing **communication of technical data**

by the distributor to the seller (see Table 21).

**Except for replies to written complaints about metering operations, every parameter pertaining to the "general" levels reached the percentage of compliance** established by the standard. Among the performances concerning communication between distributors and sellers, only the one referring to the "technical data (obtainable by reading a metering unit)" exceeded the established standards. The next edition of the *Sustainability Report* will show 2014 final data.

With respect to the **"general" and "specific" commercial quality levels** relating to **sales activities** carried out by Acea Energia, it

should be stressed that the actions undertaken to improve response to commercial services significantly contributed to keeping up the good levels of specific and general standards achieved on both target markets (see Tables 22, 23, 25 and 26). In particular, with reference to the level of compliance with the general standards, in 2014 Acea Energia consistently reached performances exceeding the minimal standard laid down by AEEGSI in the TIQV (95%). Regarding compliance levels with specific standards, a strong improvement was observed in invoice correction performance for the free market, despite a downtrend in the percentages of deadline compliance.

**TABLE 19 - "SPECIFIC" LEVELS OF COMMERCIAL QUALITY AND PERFORMANCES ACHIEVED BY ACEA DISTRIBUZIONE (2013-2014)**  
(2013: data submitted to AEEGSI; 2014: estimated data that may differ compared to data that will be submitted to the Authority)

SERVICE	2013					2014			
	AEEGSI Parameters Max. time for service delivery	Service delivery average actual time	Percentage of services carried out within time limit	Service delivery average actual time	Percentage of services carried out within time limit	Service delivery average actual time	Percentage of services carried out within time limit	Service delivery average actual time	Percentage of services carried out within time limit
<b>Low voltage supplies</b>		<b>Household consumption</b>		<b>Non-household consumption</b>		<b>Household consumption</b>		<b>Non-household consumption</b>	
Estimates for work on LV networks (ordinary connections)	20 business days	8.10	98.70%	7.98	98.98%	7.20	98.96%	7.48	99.46%
Completion of simple work (ordinary connections)	15 business days	5.70	99.60%	5.86	99.55%	5.39	99.66%	5.22	99.85%
Supply activation	5 business days	1.37	99.71%	1.30	99.59%	1.19	99.94%	1.20	99.86%
Deactivation of supply on customer's request	5 business days	1.11	99.62%	1.35	99.15%	0.81	99.90%	1.03	99.83%
Reactivation of supply following disconnection for late payment	1 business day	0.23	99.12%	0.25	99.10%	0.14	99.71%	0.19	99.64%
Resumption of the supply following faults of the metering equipment (requests sent during business days from 08.00 to 18.00 hrs.)	3 hours	2.19	86.56%	2.20	84.23%	2.82	78.36%	2.71	77.17%
Resumption of the supply following faults of the metering equipment (requests sent during non business days or from 18.00 to 08.00 hrs.)	4 hours	1.95	93.45%	1.88	93.82%	2.53	88.90%	2.22	92.58%
Notification of outcome of metering equipment check on customer's request	15 business days	15.62	72.64%	14.49	75.48%	8.36	90.26%	8.30	91.85%
Notification of outcome of voltage supply check on customer's request	20 business days	/	/	84.00	0%	/	/	10.00	100%
Maximum punctuality band for appointments with customers	2 hours	(.)	99.83%	(.)	99.84%	(.)	99.90%	(.)	99.88%
Replacement of faulty metering equipment (*)	15 business days	6.97	98.50%	5.97	98.34%	8.61	99.83%	7.48	99.35%
Resumption of correct supply voltage (*)	50 business days	/	/	/	/	/	/	/	/
Estimates for work on LV networks (temporary connections) (*)	10 business days	/	/	3.53	97.04%	/	/	2.86	99.05%
Completion of simple work (temporary connections not exceeding 40 kW) (*)	5 business days	/	/	2.20	98.82%	/	/	2.11	99.82%
Completion of simple work (temporary connections exceeding 40 kW) (*)	10 business days	/	/	2.75	99.46%	/	/	2.10	100%

(\*) Specific indicator introduced as of 01/01/2013.

(.) Not applicable.

The "/" symbol is used for those cases in which service was not required during the year.

42 The Authority for Electricity, Gas and Water requires the distribution and metering services company to submit 2014 commercial quality performances by 31/03/2015.

SERVICE	2013			2014	
	AEEGSI Parameters Max. time for service delivery	Service delivery average actual time	Percentage of services carried out within time limit	Service delivery average actual time	Percentage of services carried out within time limit
<b>Medium voltage supplies</b>		<b>End customers</b>		<b>End customers</b>	
Completion of simple work	30 business days	12.05	94.74%	4.18	100%
Estimates for work on MV networks	40 business days	17.53	81.63%	18.89	90.91%
Performance of simple works	30 business days	12.05	94.74%	4.18	100%
Supply activation	5 business days	2.82	100%	2.37	100%
Deactivation of supply on request	7 business days	2.16	100%	2.30	100%
Reactivation of supply following disconnection for late payment	1 business day	0.72	96.92%	0.53	97.30%
Notification of outcome of metering equipment check on customer's request	15 business days	12.82	82.35%	6.86	95.24%
Notification of outcome of voltage supply check on request	20 business days	/	/	/	/
Maximum punctuality band for appointments with customers	2 hours	(.)	100%	(.)	100%
Replacement of faulty metering equipment (*)	15 business days	0.29	100%	1.73	100%
Resumption of correct supply voltage (*)	50 business days	/	/	/	/

(\*) Specific indicator introduced as of 01/01/2013.  
(.) Not applicable  
/ Service was not required during the year.

The system of automatic customers' compensation to be paid for failure to comply with the "specific" quality levels starts off from a basic amount (see Table 20), which however can either double (in the event operations are performed in a timeframe between twice and three times the required standard) or triple (if operations are performed in a time frame three times the required standard).

**TABLE 20 - AUTOMATIC CUSTOMERS' COMPENSATION FOR FAILURE TO COMPLY WITH "SPECIFIC" QUALITY LEVELS (2014)**

BASIC AMOUNT IN FORCE (IN EUROS)	TYPE OF CUSTOMER
35	Low voltage household customers
70	Low voltage non-household customers
140	Middle voltage customers

**Note:** Compensation is paid to customers by deducting the amount from the bill or by issuing a cheque within 30 days of the date of the service in question or, at the latest, by three times the period of standard time established for such service, excluding automatic compensation for failure to comply with the punctuality range for appointments, in respect of which the time will commence on the date of the appointment.

**TABLE 21 - "SPECIFIC" COMMERCIAL QUALITY LEVELS: PROMPTNESS OF THE DISTRIBUTOR IN COMMUNICATING TECHNICAL DATA TO THE SELLER (2013-2014)**

(2013: data submitted to AEEGSI; 2014: estimated data that may differ compared to data that will be submitted to the Authority)

SERVICE	2013			2014	
	AEEGSI Parameters Max. time for service delivery	Service delivery average actual time (days)	Percentage of services carried out within time limit	Service delivery average actual time (days)	Percentage of services carried out within time limit
Technical data (that can be obtained by reading a metering unit)	10 business days from receipt of request	11.87	60.43%	11.86	52.81%
Technical data (that cannot be obtained by reading a metering unit)	15 business days from receipt of request	10.44	92.10%	12.58	93.26%

**Note:** In the event of failure to comply with the above standards, the customer-seller will be entitled to minimum automatic compensation amounting to 20 euros

**TABLE 22 - "SPECIFIC" LEVELS OF COMMERCIAL QUALITY AND PERFORMANCES ACHIEVED BY ACEA ENERGIA – ENHANCED PROTECTION MARKET (2013-2014) (data submitted to AEEGSI)**

SERVICE	2013		2014	
	AEEGSI Parameters Max. time for service delivery	Percentage of services carried out within time limit	Percentage of services carried out within time limit	Percentage of services carried out within time limit
Billing adjustments	90 calendar days	100%		85.7%
Double billing adjustments	20 calendar days	0%		0%
Reasoned reply to written complaints	40 calendar days	78.1%		65.7%

**Note:** Note: In the event of failure to meet the standards, enhanced protection service customers (mainly households and small businesses) will receive an automatic compensation of 20 euros.

**TABLE 23 - "SPECIFIC" LEVELS OF COMMERCIAL QUALITY AND PERFORMANCES ACHIEVED BY ACEA ENERGIA – FREE MARKET (2013-2014)**  
(data submitted to AEEGSI)

SERVICE	2013		2014	
	AEEGSI Parameters Max. time for service delivery	Percentage of services carried out within time limit	Percentage of services carried out within time limit	Percentage of services carried out within time limit
Billing adjustments	90 calendar days	37.5%		97.7%
Double billing adjustments	20 calendar days	100%		61.1%
Reasoned reply to written complaints	40 calendar days	80%		54%

**TABLE 24 - "GENERAL" LEVELS OF COMMERCIAL QUALITY AND PERFORMANCES ACHIEVED BY ACEA DISTRIBUZIONE (2013-2014)**  
(2013: data submitted to AEEGSI; 2014: estimated data that may differ compared to data that will be submitted to the Authority)

SERVICE	2013					2014			
	AEEGSI Parameters Minimum percentage of services to be provided within max. time limit	Service delivery average actual time	Percentage of services provided within max. time limit	Service delivery average actual time	Percentage of services provided within max. time limit	Service delivery average actual time	Percentage of services provided within max. time limit	Service delivery average actual time	Percentage of services provided within max. time limit
<b>Low voltage supplies</b>		<b>Household consumption</b>		<b>Non-household consumption</b>		<b>Household consumption</b>		<b>non Non-household consumption</b>	
Completion of complex work	85% within 60 business days	12.67	99.26%	14.67	99.52%	15.30	98.21%	13.65	99.40%
Reply to written complaints/ enquiries regarding distribution operations	90% within 30 calendar days	19.27	98.97%	18.93	99.75%	13.37	99.72%	14.72	99.40%
Reply to written complaints/ enquiries regarding metering operations	90% within 30 calendar days	65.75	41.31%	50.83	57.63%	29.14	68.44%	31.68	58.99%

SERVICE	2013			2014		
	AEEG Parameters Minimum percentage of services to be provided within max. time limit	Service delivery average actual time	Percentage of services provided within max. time limit	Service delivery average actual time	Percentage of services provided within max. time limit	
<b>Medium voltage supplies</b>			<b>customers</b>		<b>End customers</b>	
Completion of complex work	90% within 60 business days		7.15	100%	6.50	100%
Reply to written complaints/ enquiries regarding distribution operations	95% within 30 calendar days		9.83	100%	7.29	100%
Reply to written complaints/ enquiries regarding metering operations	95% within 30 calendar days		39.00	67.67%	33.18	27.27%

**TABLE 25 - "GENERAL" LEVELS OF COMMERCIAL QUALITY AND PERFORMANCES ACHIEVED BY ACEA ENERGIA – ENHANCED PROTECTION MARKET (2013-2014) (data submitted to AEEGSI)**

SERVICE	2013		2014	
	AEEGSI Parameters Minimum percentage of services to be provided within max. time limit	Percentage of services provided within max. time limit	Percentage of services provided within max. time limit	Percentage of services provided within max. time limit
Reply to written enquiries	95% within 30 calendar days	98%		97.8%
Reply to written requests for billing adjustments	95% within 40 calendar days	97.9%		96.8%

**TABLE 26 - "GENERAL" LEVELS OF COMMERCIAL QUALITY AND PERFORMANCES ACHIEVED BY ACEA ENERGIA – FREE MARKET (2013-2014)**  
(data submitted to AEEGSI)

SERVICE	AEEGSI Parameters Minimum percentage of services to be provided within max. time limit	2013		2014	
		Percentage of services provided within max. time limit		Percentage of services provided within max. time limit	
Reply to written enquiries	95% within 30 calendar days	99.2%		96.3%	
Reply to written requests for billing adjustments	95% within 40 calendar days	98.1%		96.6%	

The Authority defines and updates the benchmark parameters of service "technical" quality<sup>43</sup> relating to electricity supply uptime, contemplating an incentive system for the operator (bonuses and fines) and compensation for customers.

It should be stressed that uptime indicators for financial year 2014 refer to data submitted to the AEEGSI and still pending certification. According to the data shown in tables 27 and 28, Acea Distribuzione's performance in terms of duration and number of energy supply disruptions

was once again on the upside, in line with previously consolidated years.<sup>44</sup>

**TABLE 27 - LV CUSTOMER ELECTRICITY SERVICE UPTIME INDICATORS: DURATION OF DISRUPTIONS AND IMPROVEMENT PERCENTAGES (2012-2013: data certified by the AEEGSI; 2014: temporary data submitted to the AEEGSI pending certification)**

	Average aggregate duration of long disruptions without prior notice due to operator's fault affecting LV customers per year (minutes)			Improvement percentage	
	2012	2013	2014	2014 VS. 2012	2014 VS. 2013
High concentration	34.76	32.05	30.23	13.0%	5.7%
Medium concentration	61.97	51.18	54.73	11.7%	-6.9%
Low concentration	93.56	75.72	51.51	44.9%	32.0%

**Note:** The three territorial areas are defined on the basis of the degree of concentration of the resident population: more than 50,000 inhabitants is defined as "high concentration"; between 5,000 and 50,000 inhabitants is defined as "average concentration"; less than 5,000 inhabitants is defined as "low concentration."

The average annual number of disruptions affecting low voltage customers reflects both long disruptions (>3 minutes) and short disruptions (≤minutes but more than 1 second).

**TABLE 28 - LV CUSTOMER ELECTRICITY SERVICE UPTIME INDICATORS: AVERAGE NUMBER OF DISRUPTIONS AND IMPROVEMENT PERCENTAGES (2012-2013: DATA CERTIFIED BY THE AEEGSI; 2014: TEMPORARY DATA SUBMITTED TO THE AEEGSI PENDING CERTIFICATION)**

	Average number of disruptions without prior notice due to operator's fault for LV customers per year			Improvement percentage	
	2012	2013	2014	2014 VS. 2012	2014 VS. 2013
High concentration	1.76	1.69	1.44	18.4%	15.1%
Medium concentration	4.85	3.50	3.30	32.0%	5.7%
Low concentration	5.54	4.79	3.97	28.4%	17.1%

**Note:** The three territorial areas are defined on the basis of the degree of concentration of the resident population: more than 50,000 inhabitants is defined as "high concentration"; between 5,000 and 50,000 inhabitants is defined as "average concentration"; less than 5,000 inhabitants is defined as "low concentration."

Disruptions occurring at any voltage level within the electrical system are also regulated for MV customers. The regulatory system entitles low-voltage customers to receive compensation, provided that they can certify the adequacy of their own equipment in the event of energy supply disruptions exceeding a given standard.

With regard to 2014, 24 MV customers were indemnified<sup>45</sup>. Moreover, long or extensive disruptions, i.e. service disruptions exceeding standard timeframes, are likewise regulated for both LV customers as well as MV customers. In any such cases, the operator is required to pay a penalty to the

Extraordinary Event Fund maintained with the Equalisation Fund for the electricity industry. The extent of this penalty will be determined based on the number of LV customers cut off for disruptions due to "other reasons". Fifteen MV and 11,788 LV customers were indemnified in FY 2014.

<sup>43</sup> Resolution No. 198/11 as amended from time to time.

<sup>44</sup> Once the data has been verified, the Authority will publish it and make it available on its website ([www.autorità.energia.it](http://www.autorità.energia.it)).

<sup>45</sup> In order to be entitled to compensation, medium voltage customers must prove that they have installed protection devices at their plants that can prevent any interruption caused by faults within their utility plants from having repercussions on the network, damaging other customers connected nearby. Furthermore, in order to access compensation customers will be required to have arranged for the distribution company to receive a plant adequacy statement issued by parties having specific technical and professional expertise. Failure by customers to meet the requirements whereby compensation may be sought will cause the amount of the compensation to turn into a fine, which the distribution company is required to transfer to the Equalization Fund for the Electricity Sector.

## QUALITY OF PUBLIC LIGHTING OPERATIONS

Pursuant to the *Service Agreement*<sup>46</sup> entered into between Acea SpA and the Municipality of Rome, Acea Illuminazione Pubblica runs **the functional, artistic and monumental public lighting system in the Municipality of Rome, spanning approximately 1,300 km<sup>2</sup>**, (i.e., about 7 times Milan area).

**Acea Illuminazione Pubblica** engages in the **design, construction, operation, maintenance and refurbishing of networks and plants** according to Management System-compliant procedures: UNI EN ISO 9001:2008 (**Quality**), UNI EN ISO 14001:2004 (**Environment**), OHSAS 18001:2007 (**Safety**) and UNI EN ISO 50001:2011 (**Energy**) standards.

Work is planned and supervised as milestones are reached. To this end, a synergy is created between in-house executive and technical skills and the guidelines issued by the local Public Administration Departments and authorities responsible for supervising new urban developments, land improvement projects as well as the cultural heritage. In addition to delivering the service for the Municipality of Rome, the Company makes its know-how available to other stakeholders.

in 2014, following an accurate operating process analysis, Acea Illuminazione Pubblica launched the **WFM Project** as part of the broader Group project known as ACEA2PUNTOZERO, the purpose being to achieve a more streamlined management

of all maintenance and development operations carried out by technical and clerical personnel. The gradual implementation of new certified and centralised information systems (SAP), together with the introduction of modern mobile technologies for the assignment and reporting of field operations in real time will help carry through the project. In so doing, the Company will optimise the organisation of the operations that need to be completed, gaining benefits in terms of both work management as well as respect for the natural environment, insofar a more rational planning of trips across the territory will result in less polluting emissions. The gradual and (starting from 2016) fully operational implementation of the WFM will provide an opportunity for reviewing and improving business processes.

**TABLE 29 – PUBLIC LIGHTING IN ROME IN FIGURES (2014)**

No. of lighting units	<b>192,690</b> (+1,8% over 2013)
• No. of monumental artistic lighting units	• approximately 11,000
No. of lamps	<b>217,688</b> (+1,6% over 2013)
MV and LV grid (km)	<b>7,759</b> (+1% over 2013)

The **main operations conducted in the functional public lighting area** in 2014 included the new installations for the **Settecamini tunnel** on via Tiburtina, where Acea developed a **pilot project**; work completed on the **bus lane** section restricted to public transport along via Laurentina, which was open to traffic in November 2014; work for the **improvement of areas** located in **Porta Portese** and **Parco di Monte Mario** as

well as referring to the **lighting of C and B1 underground lines**. Emphasis is also placed on **artistic and monumental-related** work for the **LED switchover of St. Peter's Basilica lighting and the new lighting system in S. Maria Maggiore Basilica** (see detailed boxes).

During the year, moreover, the **LED Switchover Plan for public lighting systems** was prepared as requested by the Municipality

of Rome. **The Plan is expected to reach completion between 2015 and 2017** and consists of a far-reaching endeavour that required research and planning efforts. It will allow considerable energy savings to be achieved, with **work being planned on approximately 189,000 lighting units** (see special box).

### THE PUBLIC LIGHTING SYSTEM IN ROME WILL BE CHANGED WITH LED SOURCES: PLAN FINALISATION

In 2014, Acea Illuminazione Pubblica, upon the request of the Municipality of Rome, **drafted the LED Switchover Plan for the city's public lighting systems**. During the 2015-2017 two-year term, approximately **189,000 different types of lighting units spread across the territory will be covered**, with the longer life of lighting sources generating considerable energy savings and a reduction in maintenance operations.

The Plan was prepared firstly by **classifying the streets** according to the UNI 11248 standard and then **assigning to each of them a luminance value consistent with the standard**. Finally, **specific site inspections** continued to be carried out to ensure that the correct lighting engineering category was applied with a view to the related energy savings. In December, an **initial installation involving about 900 LED lighting units** (replacing lighting units with High Pressure Sodium lamps) was completed **in the areas of Tor Sapienza and Pigneto** due to safety-related problems. The above installations allowed energy savings data to be checked on-site, showing savings in the region of 55%, in line with the agreements reached with Roma Capitale.

### A PILOT PROJECT UNDERTAKEN BY ACEA ILLUMINAZIONE PUBBLICA INVOLVING THE SETTECAMINI TUNNEL ON VIA TIBURTINA

Work for the extension of via Tiburtina involved the construction of a vehicle-accessible underpass along the stretch spanning km 9,3 and km 15,8, where in 2014 Acea Illuminazione Pubblica completed a **pilot project executed entirely with LED equipment**. It was, in point of fact, the **first tunnel operation in which this type of lighting source was used** thanks to the continuous evolution of LED technology, which has now reached the required high levels of luminance.

The operation yielded therefore an important outcome, allowing **construction standards also to be defined for future system installations in tunnels**.

The project entailed deploying **206 floodlights**, with due account being taken of the geometric characteristics of the tunnel, the area in which it was located, the design speed of the road (70 kmph) and the different requirements set by day-time and night-time configuration, identifying the luminance curves required for the lighting of the two bores of the tunnel.

**54 symmetric floodlights for permanent lighting and 152 reverse-flow floodlights for additional lighting** were installed, making it possible to use fixtures with wattage reduced by 40% compared to those required for lighting using conventional sources. The levels of luminance attained are characterised by a very high degree of uniformity, producing significant results from an energy efficiency perspective.

<sup>46</sup> By Resolution of the City Council No. 130 dated 22 December 2010 regarding the Updating of the Service Agreement between Roma Capitale and Acea SpA, effective 15 March 2011, the agreement was extended to 31/12/2027.

## LIGHTING SYSTEM IN UNDERGROUND STATIONS AND THE NEW BUS LANE SECTION IN EUR LAURENTINA AREA

In 2014, as part of the plan developed with Roma Metropolitana, Acea deployed the lighting system in Annibaliano and Conca stations (B1 underground line) along the stretch spanning Piazzale Bologna-Piazzale Jonio **with 189 LED lighting units**. Different types of supports were used (single and double fixtures) depending on the intended use (green areas, pedestrian areas or mobility areas). With regard to **line C underground stations** along the Pantano-Piazza San Felice da Cantalice stretch, lighting was provided using different supports, depending on the function, and HPS (High Pressure Sodium) lamps using wattages ranging between 100W and 400W, totalling **300 light fittings**. Work was completed as part of the operation plan developed with "Metro C". The projects for the deployment of the lighting system in Line C underground stations along the Mirti-San Giovanni stretch were also launched and are currently nearing completion, with a total of 250 LED spotlights being installed.

Moreover, Acea Illuminazione Pubblica rolled out the lighting system of the **new bus lane stretch** restricted to public transport traffic, totalling approximately **3 km along the central axis of via Laurentina**. The purpose of the project was to provide a lighting system for the "mobility corridor", with a view to gaining energy efficiency and savings by installing LED equipment and upgrading existing systems along the path, replacing units and adopting suspended luminaire solutions that could provide adequate levels of luminance and a satisfactory aesthetic result. The system required the **installation of 297 LED fixtures** and the **removal of 104 sodium vapour lamps**. Despite the **number of light fittings virtually tripled**, a **reduction in energy consumption** was nonetheless attained using the new technology.

TABLE 30 – MAIN PUBLIC LIGHTING WORKS ON LIGHTING UNITS (2014)

TYPE OF WORK	(NO. OF LIGHTING UNITS)
Deployment of new lighting units (including artistic)	<b>1,801</b> lighting units (of which <b>1,754 LED</b> ones), equivalent to approximately 33 km of street lighting)
Work for energy efficiency/technological innovation (fixture replacement)	<b>1,111</b> lighting units
Switching 8.4 kV MV circuits to LV standard	<b>32</b> transformer stations
Safety measures	<b>714</b> lighting units

**Note:** The table includes operations carried out for the Municipality of Rome and third parties.

## WORK FOR URBAN REDEVELOPMENT INCLUDED THE PORTA PORTESE AND PARCO DI MONTE MARIO AREAS

In the area adjoining Porta Portese, the Municipality of Rome launched an urban redevelopment plan aimed at supporting the area's sustainable growth. The project included a number of operations and was implemented as part of the Local Urban Development Plan (P.L.U.S.) of Roma Capitale, and benefited from Community funding. In particular, Acea Illuminazione Pubblica was involved in work for the **improvement of Porta Portese Sunday market** that stretches along via Portuense, via Ippolito Nievo and via Ettore Rolli, **working on the lighting system of the entire area**. **94 LED units** were installed on existing supports, achieving greater luminance and uniformity levels compared to conventional sources, a better colour rendering and significant energy savings.

In 2014, **Acea's work in the Monte Ciocchi urban area also continued**, such area being part of the "Parco di Monte Mario" **protected area** and designated as a park itself, where more than 160 lighting units were installed according to an initial project launched in 2013. In this connection, a green area with cycling and walking tracks was built over a 5,000 m stretch, with **Acea Illuminazione Pubblica deploying a number of lighting systems along the entire path of the cycling-walking track as well as adjoining squares**. The project was designed with a view to energy efficiency using LED lighting sources, with a total of **264 units being installed to light the cycling-walking track and additional 59 units in rest areas fitted with benches and sports equipment**.

Every year, in addition to deploying new lighting projects, Acea handles scheduled and extraordinary maintenance work on the systems (see Table 31).

TABLE 31 – SCHEDULED AND EXTRAORDINARY PUBLIC LIGHTING REPAIRS AND MAINTENANCE (2014)

TYPE OF WORK	(NO.)
Checking corrosion on lampposts	<b>14,541</b> lampposts checked
Replacing bulbs prior to luminous flux loss	<b>27,828</b> bulbs replaced
Reinstalling lampposts that were corroded or knocked down due to accidents	<b>530</b> lampposts reinstalled

Acea monitors **public lighting system quality standards** regarding **fault repair time**, which is calculated starting from a fault being reported<sup>47</sup>. **Service standards** are **defined based on an average service resumption time allowed**

(TMRA) within which repair work must be completed, **and a maximum time limit (TMAX), with fines being applicable in the event it is exceeded**<sup>48</sup>. System operation **average service resumption**

**time (TMR) taken by Acea in 2014** in respect of the different types of failures **was clearly lower than TMRA**, even though it proved **slightly worse** over the previous year (see Table 32 and Chart 18).

<sup>47</sup> For the purpose of calculating service levels, reports pertaining to damages caused by third parties and to faults affecting the same network section already reported will not be considered.

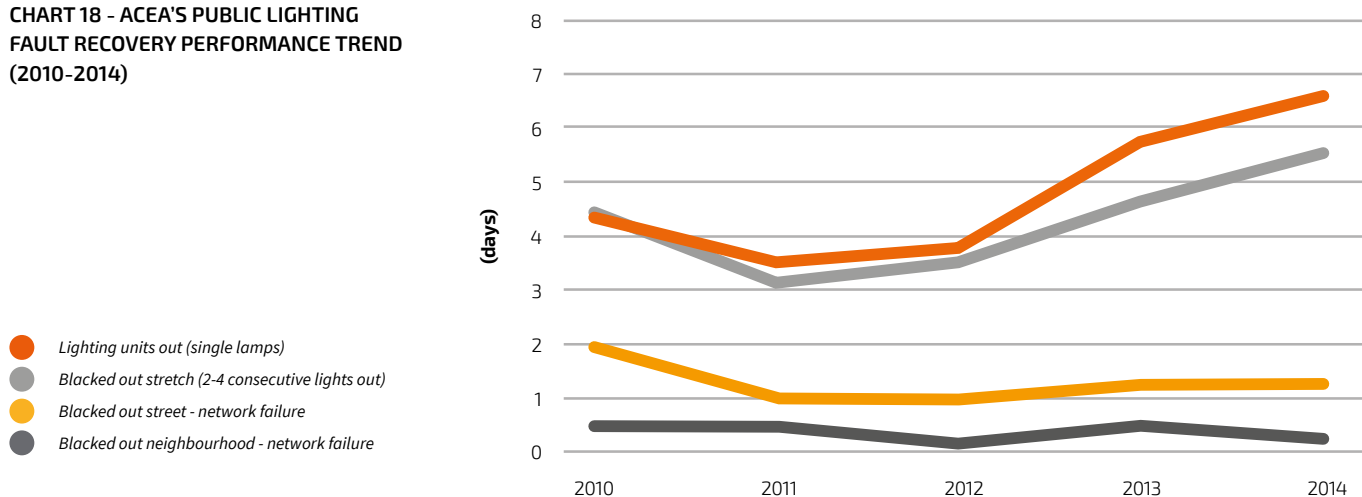
<sup>48</sup> Fines are calculated using the following criteria: each repair completed beyond the TMAX will be sanctioned; repairs completed within the TMAX but exceeding the TMRA will be sanctioned only if TMR>TMRA. In 2014, total reports subject to fine calculation amounted to 15,524, of which 192 (1.2%) were completed beyond the maximum time limit; the amount of fines in 2014 stood at 49,175 euros approximately (also see Institutions and the Company, box dedicated to Investigations, rewards and sanctions).

**TABLE 32 – PUBLIC LIGHTING SERVICE RESUMPTION FOLLOWING FAILURES: ACEA'S STANDARDS AND PERFORMANCES (2013-2014)**

TYPE OF FAILURE	FINE PER DAY OF DELAY (in euros)	SERVICE LEVEL AGREEMENT (*)		ACEA'S PERFORMANCE	
		TMRA (average service resumption time allowed) (business days)	TMAX (maximum service resumption time limit) (business days)	TMR (average service resumption time) (business days)	
		2013	2014	2013	2014
Blacked out neighbourhood - MV grid failure	70	1 day	1 day	<1 day	<1 day
Blacked out street - MV or LV grid failure	50	5 days	8 days	1.23 days	1.29 days
Blacked out stretch (2-4 consecutive lights out)	50	10 days	15 days	4.64 days	5.54 days
Lighting units out: single lamps, posts, supports	25	15 days	20 days	5.75 days	6.64 days

(\*) Consistent with previous years, data were monitored in compliance with provisions under Annex D/2 to the 2005-2015 Service Agreement between the Municipality of Rome and Acea SpA.

**CHART 18 - ACEA'S PUBLIC LIGHTING FAULT RECOVERY PERFORMANCE TREND (2010-2014)**

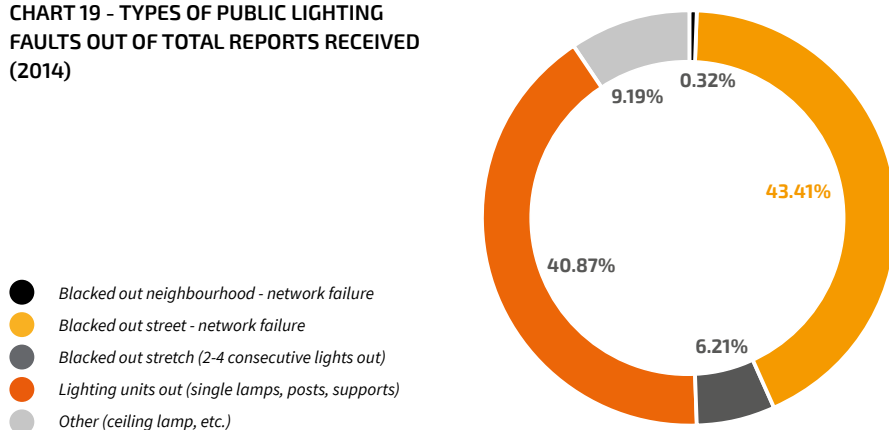


Faults are detected by internal control systems (remote management, monitoring teams) and reported by the citizens and Rome City Council through the different contact channels available (call centre, web, fax or ordinary mail)<sup>49</sup>. In 2014, **23,638 faults were reported**<sup>50</sup>, +9.4% compared to the 21,608 reports submitted in the previous year. **Acea took action in 97.2% of the cases**, with 22,988 "trouble tickets executed" at 31/12/2014, with the remainder to be completed in early 2015.

The increase in fault reporting already observed in the previous year was once again to be partly related to the "copper theft" upsurge witnessed over the past few years, with **over 60 km of cables stolen** in 2014, resulting in **more serious and extended failures**. The above scenario is reflected in the **percentage distribution of the reports by type of fault** (see Chart 19), where "blacked out street" incidents related to network failure (rising from 40.2% to

43.4%) showed a greater incidence; consistent with previous years, following were "individual lighting units out", a type of fault having a lower impact on service quality that decreased compared to 2013 (from 44.97% to 40.87%), even though it was still high; finally, blacked out neighbourhood incidents due to network failure proved again to have a low incidence (0.32%).

**CHART 19 - TYPES OF PUBLIC LIGHTING FAULTS OUT OF TOTAL REPORTS RECEIVED (2014)**



49 More detailed information on the call centres' performance and written complaints is provided in the Customer Care section.

50 Data does not include reminders and tickets opened for the same fault.



About **11,000 lighting units** are dedicated to **Rome artistic and architectural heritage enhancement**.

Given the extraordinary nature of the area in which the Company has been engaging for many years, **Acea has gained specific expertise** in the artistic and monumental lighting sector, which

can also be extended to the needs of “private customers” (such as ecclesiastical institutions, hoteliers or third parties in general).

In addition to performing maintenance work on existing systems, towards the end of 2014 Acea completed two major projects, thereby **honouring the city: St. Peter’s Basilica**

**lighting system** using LED technology (340 luminaires installed in replacement of the existing lighting system) and the new lighting system of **Santa Maria Maggiore Basilica** (138 LED luminaires installed), including the domes and church tower, which had never been illuminated before (see detailed boxes).

#### ST. PETER’S BASILICA ILLUMINATED USING LED TECHNOLOGY

In December 1999, the new lighting system of St. Peter’s Basilica deployed by Acea for the 2000 Great Jubilee was inaugurated in the presence of Pope John Paul II. **Fifteen years later, the new system was inaugurated** in the presence of ecclesiastical and institutional authorities. Although the system was based on the previous lighting design, it included the installation of **as many as 340 LED luminaires**, with smaller sized and high efficiency lamps to enhance the shape of the architectural structures and colour shades to the fullest extent.

Work performed on **St. Peter’s Basilica** by Acea for the city of Rome included **lighting installations for the Dome, Tambour, Lantern, minor lateral domes, façade, windows and Blessing Room**. Moreover, for the first time Acea illuminated St. Peter’s **Main Altar and Baldacchino** inside the Basilica. In addition to illuminating the entire Basilica with fresh new light, the operation allowed energy consumption to be reduced by 70%, focusing again on environmental protection issues.

This major operation was completed **choosing and employing all-Italian technologies and manpower**, such as firm A&G’s highly skilled team performing rope work and the luminaires supplied by Piedmont-based firm Diamante Lighting.

#### THE NEW LIGHTING SYSTEM OF S. MARIA MAGGIORE BASILICA

Prior to work performed and **offered to the city** by Acea in 2014, the **Domes and Church Tower of S. Maria Maggiore Basilica** had never been lit. The project outline contemplated a double level of lighting: a (basic) level for projection, providing **general lighting for the Domes**, and a second target-oriented level with sidelight near the structures aimed at **enhancing the individual architectonic elements**, such as the ribs, lantern and tambour.

The illumination of the **Church Tower** overlooking the square was completed by highlighting the mullioned windows that characterise all four sides of the tower. Luminaires were directed towards the external surface of the coupled columns and hit the profiles of the surmounting arches. As part of the project, the Church Tower pinnacle was also illuminated with luminaires placed near its four vertexes. Acea also arranged for the replacement of luminaires illuminating the **Loggia, mosaics and Portico** with LED units, supplementing the Loggia system with devices aimed at highlighting the profiles of the arches overlooking the square.

Work reached completion at the end of December, with the **inauguration ceremony taking place in early January 2015**. The entire operation required **138 LED units**, with an overall power usage of 5 kW. Acea relied on the support of a team performing rope work supplied by firm A&G, the latter also performing work on St. Peter’s Basilica, while Lombardy-based firm Disano Illuminazione acted as technical sponsor.

Rome, the new LED illumination of St. Peter’s Basilica



## QUALITY OF WATER OPERATIONS

Acea engages in water operations through subsidiaries in different Optimum Areas of Operations (ATOs) across the regions of **Lazio, Tuscany, Campania and Umbria**.

Below is a description of the integrated water service operations carried out by **Acea Ato 2 in Optimum Area of Operations 2 – Central Lazio** (comprising Rome and another 111 municipalities across Lazio, with an overall inhabitant base of around 3.9 million), representing **the Group's "historical" area of operations**<sup>51</sup>, as well as activities carried out by **Acea Ato 5**, who also operates in Lazio (ATO 5 - southern Lazio - Frosinone, comprising 86 municipalities and about 480,000 inhabitants). Key economic, social and environmental information<sup>52</sup> about the **other Group companies** operating in Italy in the water area is provided under *Water Company Data Sheets* and included, with regard certain Group data, in the section illustrating *Environmental Issues* and in the *Environmental Report*, while water operations carried out in Latin America are described under *Operations Abroad*.

The management of the integrated water service comprises the entire drinking and wastewater cycle: from collection of the natural resource from the springs to its return to the environment. It is governed by a **Management Agreement** between the company running the service and the relevant jurisdictional Authority. The **Integrated Water Service Charter**<sup>53</sup> attached to the aforesaid Agreement also defines the general and specific **quality standards**. Dealings with customers are further governed by the **Users' Regulations** attached to the Agreement, setting forth the technical, contractual and financial terms and conditions under which the operator must provide services and the procedures for settling disputes. In 2012, the Italian Regulatory Authority for Electricity, Gas and Water (AEEGSI) started to regulate water operations. As early as the end of the first half of 2013, in compliance with Resolution No. 586/2012/R/Idr both Acea Ato 2 and Acea Ato 5 **allowed customers to access their websites to review information about the quality of water for human use**. Effective 1 January 2014, the aforesaid Resolution No. 586/2012 governing the **transparency of the billing document** came into force, requiring water operators to provide specific items in the bill. Moreover, in December 2014 AEEGSI issued a consultation paper on commercial quality

reflecting the initial guidelines pertaining to contract quality of each of the services making up the IWS (Integrated Water Service), with a final measure being expected by June 2015. According to the above document, the consultation papers relating to **uptime and service availability** will be published by summer, including connections to the grid and service activation as well as reporting, recording and record-keeping requirements. Quality standards pertaining to the different aspects of the service being supplied are subject to constant monitoring and are notified to the Operating Technical Secretariat (STO, Segreteria Tecnica Operativa) of the jurisdictional Authority on a regular basis. During the course of 2014, Acea Ato 2 and Acea Ato 5 provided the STO with the technical and operating data as defined by AEEGSI.

## THE INTEGRATED WATER SERVICE IN ATO 2 - CENTRAL LAZIO

**Acea Ato 2** engages in **network and plant design, building, maintenance and refurbishing operations** within the ATO 2 – Central Lazio area **in compliance with the Quality Management System (UNI EN ISO 9001:2008)**. Moreover, in the pursuit of its integrated endeavours, **in 2014 it dispatched formalities to obtain certifications for the Environment (UNI EN ISO 14001:2011), Safety (OHSAS 18001:2007) and Energy (ISO 50001:2011) systems**. Such procedures were successfully completed in January 2015, leading the company to review its Quality Policy in order to complement it with the other three Systems and define a so-called QESE Policy.

The service management of the municipalities that fall within the relevant ATO is gradually taken over. Prior to such takeover, Acea Ato 2, in conjunction with the local authorities, performs an accurate **sanity check on the infrastructure** (networks and plants) and if any situations of non-compliance are detected, it must wait for the municipalities concerned to complete the actions required to correct any such non-compliances. In 2014, after a number of situations were made compliant with the required standards, **operations for taking over the service in the municipalities of Capranica Prenestina and Olevano Romano were completed**, with aqueduct service operations being acquired in additional four municipalities. As a result, at **31 December 2014**, out of the 112 municipalities falling within ATO 2 - central

**Lazio, the Integrated Water Service (IWS)** - comprising aqueduct, sewerage and water treatment - was managed in **75 municipalities** and **partially** in other **19 municipalities**. The target population served stood at about 3.6 inhabitants (residents), equal to approximately 92% of the total population comprised in ATO 2. Complementing the above operations were the **aqueduct systems** of Simbrivio, ex Cassa per il Mezzogiorno, Doganella, Nemi-Genzano, C.E.P. (Consorzio Ecologico Prenestino) and Peschiera Consortia, while the acquisition of the sewerage systems and lifting stations still run by the Co.R.Ec.Alt Consortium is subject to the latter's completion of plant upgrading and network integration work.

In 2014, Acea Ato 2 managed as a whole **1,363 km of drinking water supply network, 9,645 km of drinking water distribution network** (including user branches in Rome and Fiumicino) and **about 6,084 km of sewerage network** (excluding connections) linked up to a complex system comprising plants and facilities that make it possible to run the aqueduct, water treatment and sewerage service.

In addition to following the growth of new urban developments and aiding the Civil Protection agency in the event of criticalities (also see *Institutions and the Company*), every year the Company carries out work for the modernisation or upgrading of the plants, along with completion, extension or improvement of pipes and grids.

Towards the end of 2013, **a review of all operating and management processes of Acea Ato 2** was performed **with a view to rationalising and streamlining them**. In April 2014, such a review resulted in the launch of the **Workforce Management Project (WFM)**, which will have **a far-reaching positive impact on the management of operations across the territory** (see detailed box). With a view to continuous improvement by applying the study method of the so-called Lean Organisation and Value Stream Mapping, Acea Ato 2 **started and completed "improvement endeavours" for the water distribution service with road tankers, the management of damage and criticalities in accessing plants, the management of automatic water supply points, the so called "Case dell'acqua"** (see relevant box below). This review will be extended to other processes in 2015, allowing new "improvement endeavours" with dedicated workgroups to be undertaken.

51 *Acea has been entrusted with the running of the capital's aqueduct service since 1937, the water treatment system since 1985 and the entire sewerage system since 2002, effective 1 January 2003. Rome and Fiumicino network is therefore defined as "historical".*

52 *It should be stressed that some of Acea's subsidiaries engaging in water operations, especially those operating in Tuscany, publish their own sustainability report, to which reference should be made.*

53 *The Integrated Water Service Charter - operating in Acea Ato 2 and Acea Ato 5 since 2003 and 2004, respectively - is gradually being extended to the municipalities under management. The full version of the Service Charter is available on the respective corporate websites at [www.aceaat2.it](http://www.aceaat2.it) and [www.aceaat5.it](http://www.aceaat5.it).*

## THE WFM (WORKFORCE MANAGEMENT) PROJECT IN ACEA ATO 2

During the course of 2014, following an accurate review of all operating processes started in 2013, Acea Ato 2 launched a project named **WFM Project** as part of the broader group-wide ACEA2PUNTOZERO scheme, the aim being to ensure a more **streamlined management of all water service operations performed by technical and clerical personnel**.

The Project entails the implementation of new highly reliable certified and centralised **information systems (SAP)** and the **introduction of state-of-the-art mobile technologies for assigning and reporting field operations in real time**. To put it simply, the system will allow a technician possessing the required skills to be alerted immediately and reach the place where support is required while tracking operation timeframes and outcome. This will result in a **rationalisation of travelling time, an increase in performances and quality of the service delivered** and will enable **corporate information to be shared** using new methods and channels.

During the design stages, Acea Ato 2 interacted with the other water companies of the Group to develop consistent technical and commercial processes and procedures, drawing on the successful experiences achieved. This dialogue will allow a Group project document to be outlined in early 2015, whereby the new business model will be applied first in Acea Ato 2 and then in all other water companies.

In 2014, water network structure and **leakage detection and recovery** review operations continued to be performed in conjunction with LaboratoRI, with the main operations conducted in the province of Rome covering the municipality of Velletri. Furthermore, **activities started for the remapping and assessment of water districts in Rome and provincial areas for the purpose of consolidating water management schemes and systematising water balances pursuant to the required standards. In this connection, in the year under review 40 water districts were remapped in Rome, 26 in the municipalities of the Northern Network and 55 in the municipalities of the Southern Network.**

The digitalisation process of the sanitary water networks in ATO 2 also continued, with data being input into the **GIS (Geographic Information System)**<sup>54</sup>. During the year, arrangements were also made to **migrate data to a new software platform and check and update it**. Therefore, at 31/12/2014, **10,428 km of water network and 5,587 km of sewerage were digitalised.**

### THE AQUEDUCT SERVICE MANAGED BY ACEA ATO 2

From a quality and quantity perspective, **all main aqueducts (208 km) and the supply network (1,363 km) are remote-controlled** (telemetering, alarms and possible operations via

remote control). In addition, Rome distribution network (4,403 km) is operated through remotely controlled water centres fitted with pressure and/or level gauging capabilities. **As a result, the extent of the network that can be considered as subject to remote control spans 5,974 km overall. Water centres that are** partially or totally remotely controlled (with pressure and/or flow rate and/or level gauging capabilities) amount to **501**, while centres fitted with remotely controlled quality gauging capabilities total **135**. A gradual system implementation scheme has been devised to cover the rest of the territory.

Like in previous years, **maintenance and improvement operations** continued in 2014, involving hydraulic equipment installed in some plants of the Rome supply system (water centres, feeding water pipes, networks, etc). Key operations carried out during the year on the aqueduct system included: inspection and maintenance work **along the I Acquedotto Marcio tunnel stretch** running from the springs in Licenza **and the reconstruction of a navigable aqueduct that had suffered a major collapse in II Acquedotto Marcio**, as well as other maintenance work performed along the stretch being considered. Moreover, the **Torrenova feeding water pipe – Eur DN 1800** and, partially, the **Piezometer** of the water centre located in the EUR area were commissioned. The

major 15 km long conduit enabled the service to be improved in the south-west area of Rome and will ensure the implementation of a more rational structure of water networks.

Moreover, as part of the efforts made to **address as best as possible water emergency situations arising** in particular in some municipalities located to the south of Rome **during summer months** and when consumption rises, a strong focus was placed **on water resource management**. For example, in order to control a critical situation in the **municipality of Velletri**, water shifts were enforced and published on the corporate websites, while Acea Ato 2 provided a supply service using road tankers that helped reduce discomfort among the population. Towards the end of the year, the water purification plant named "Le Corti" was commissioned in Velletri itself (also see other paragraphs below).

Finally, the **installation of new metres or replacement of those not working properly** continued in 2014, involving **15,906 operations**. Table 33 shows the main **routine and extraordinary maintenance work** carried out during the year on water networks in Rome and in the other municipalities under management, as well as **checks performed on the quality of the drinking water supplied**.

54 A GIS is an IT system used to input, record, analyse, view and output information resulting from geographical data, relating different data according to its common geographical benchmark.

**TABLE 33 – MAIN OPERATIONS ON AQUEDUCT NETWORKS AND CHECKS PERFORMED ON DRINKING WATER IN ATO 2 – CENTRAL LAZIO (ROME AND OTHER MUNICIPALITIES UNDER MANAGEMENT) (2014)**

<b>TYPE OF WORK</b>	<b>(NO.)</b>
Operations for aqueduct network failure	About <b>48,000 operations</b>
Scheduled maintenance work on aqueduct network	About <b>11,000 operations</b>
Meter installations (including new and replaced metres)	<b>15,906 operations</b> (9,358 new and 6,548 replaced), of which <b>6,409 in Rome</b> (4,613 new and 1,796 replaced)
Water network extension	<b>9.55 km</b> water network extension (of which about 6.92 km in Rome)
Water network improvement	<b>11 network improvement operations</b> totalling <b>5.36 km of network improved</b>
Drinking water quality control	<b>8,810 samples</b> collected and <b>342,141 tests</b> performed on drinking water

With regard to **water supply uptime**, in 2014 **1,029 stoppages** proved necessary, **903** of which were **urgent** (due to pipe failures) and **126 referred to scheduled stoppages**; **around 3.5% of stoppages lasted more than 24 hours**, a figure consistent with the previous two-year period (see Table 34).

**TABLE 34 – NUMBER, TYPE AND DURATION OF WATER SUPPLY STOPPAGES IN ATO 2 (2012-2014)**

	<b>2012</b>	<b>2013</b>	<b>2014</b>
Urgent stoppages (No.)	920	950	903
Scheduled stoppages (No.)	174	195	126
<b>Total stoppages (No.)</b>	<b>1,094</b>	<b>1,145</b>	<b>1,029</b>
Disruptions lasting >24h (No.)	56	45	36

Acea Ato 2 is strongly focused on preserving the **quality of the water distributed for drinking use** as well as water returned to the environment. **The tests on the drinking water distributed**, performed with the support of LaboratoRI (see *Environmental Issues, Water Area* and the *Environmental Report*) are conducted on samples taken from springs and wells, supply systems, reservoirs and along the distribution networks. **The frequency of the tests and sample collection points**, both exceeding the number laid down by current law provisions (Legislative Decree No. 31/2001), **are defined taking into consideration a number of variables**, such as volumes of water distributed, population covered, network and infrastructure conditions, specific characteristics of local springs. In the municipalities supplied with water that has intrinsic quality issues, many more tests are performed and if specific problems are detected, **extraordinary analysis campaigns** will be launched. In 2014, a total of **8,810 samples were collected** and **342,141 tests** were performed on drinking water in the municipalities managed by ATO2 – Central Lazio. Operations were carried out by both LaboratoRI and Acea Ato 2.

As known, the **spring water** collected to supply the **areas of Rome and Fiumicino** (Acea's "historical network") shows **excellent quality levels** per se. On the other hand, the **volcanic nature of the terrain in the Castelli Romani** area, resulting in **mineral elements** such as

fluorine, arsenic and vanadium being released into groundwater in **amounts exceeding the limits laid down by law**, has required that for some municipalities the water supply be delivered notwithstanding such law provisions pending the completion of **work undertaken by Acea Ato 2** to overcome these issues, including the decommissioning of some local sources of supply to replace them with higher quality springs. For this purpose, **more than 30 purification plants have been deployed** over the past few years, with an overall flow rate in the region of 500 l/s. During the year, monitoring, implementation and testing operations related to the remote control of such plants also continued. Formalities were dispatched for the deployment of water purification plants in Oriolo Romano and Sant'Oriolo Romano as well as Campo Pozzi Sassete in the municipality of Fiano Romano to complement the flow rates delivered to the relevant municipalities. At the end of 2014, a **purification plant named "Le Corti" was completed and commissioned** in Velletri. This allowed the **plan for compliance with the limits set under Legislative Decree No. 31/01** to reach completion, **covering the entire population initially benefiting from exemptions** (150,000 inhabitants approximately). Indeed, following the latter operation the water supplied to **all the municipalities managed by Acea Ato 2 currently meets the provisions of Legislative Decree No. 31/01**. **Data pertaining to the main water quality standards**<sup>55</sup> by place of residence can

be viewed by **visiting** Acea Ato 2 website at [www.aceaato2.it](http://www.aceaato2.it).

Following the expiration of the related water service management agreement<sup>56</sup> in May 2014, a new agreement was executed between Roma Capitale and Acea Ato 2. This agreement governs the management of (i) lifting stations and reservoirs feeding the non-drinking water network, (ii) the irrigation network - mainly rolled out in the inner city centre and "Trieste" and "Prati" neighbourhoods and supplying water for "jeux d'eau" in major artistic fountains - and (iii) **9 of Rome's main artistic and monumental fountains**<sup>57</sup>: the Triton Fountain, the three Fountains of Navona Square (the Fountain of the Four Rivers, the Moor Fountain and the Fountain of Neptune), the Trevi Fountain, the Fountain of Turtles, the Fountain of Moses, the Naiad Fountain and the Fontanone Mostra dell'Acqua Paola.

At the end of September 2014, **the first "Casa dell'acqua" (Water House) was launched, supplying free-of-charge natural or sparkling cool water** to citizens and tourists. It was installed at Acea Headoffice in Rome. It is the first unit installed **as part of a much broader project** that over the next three years is expected to **deploy 100 Water Houses in areas reachable by citizens in Rome and its provincial districts** (see detailed box).

55 The scheme - launched in 2013 by the companies that run the water service following a resolution by the Authority for Electricity, Gas and Water - covers drinking water quality standards in "isoquality areas" (i.e., areas with equivalent average water quality).

56 The agreement expired in 2012 and was subsequently extended until the first four-month period of 2014.

57 Roma Capitale launched a call for tenders for the management of the other artistic fountains in which Acea Ato 2 did not take part. With regard to drinking-water fountains and fire hydrants, Acea Ato 2 is also responsible for the water segment up to the "point of delivery" and provides technical support in the event of damages to the water supply systems as well as for water flow opening and closing operations.

**THE FIRST WATER HOUSE WAS INAUGURATED: FREE-OF-CHARGE NATURAL AND SPARKLING COOL WATER DISPENSERS WILL BE DEPLOYED IN ROME AND RELATED PROVINCIAL DISTRICTS**

Upon request of the Mayors of the municipalities falling within ATO 2 - Central Lazio, in its capacity as operator entrusted with the management of the Integrated Water Service **Acea Ato 2** agreed to **rolling out on-tap natural/sparkling cool water dispensers known as "Case dell'acqua" (Water Houses)**. By Resolution No. 9/2014, the ATO 2 Mayors' Conference approved the investment scheme, including the operation in the 2014/2017 Investment Plan, with funding being allocated in the region of 3 million euros over three years.

During the course of 2014, **the first prototype was built** based on the corporate logo model, subject to appropriate adjustments, highlighting Acea core businesses: Water, Energy and Environment. They are in point of fact state-of-the-art natural and sparkling water supply facilities that **distribute network water** (i.e., the same water as that supplied by city aqueducts) **free of charge**: excellent and safe drinking water **certified by strict controls** conducted by Acea and the relevant local health authorities on a regular basis. Water Houses comply with specific regulations governing food supply and safety, have a 180 l/h flow rate, allowing a 1-litre bottle to be filled in 20 seconds, are fitted with monitoring equipment in synch with Acea Ato 2 remote control systems, and even showcase power supply sockets enabling cellular phones and tablets (or any USB device) to be charged.

The first Water House was installed in Rome at Acea Headoffice in Piazzale Ostiense 2 and was inaugurated on 30 September 2014. During the **experimental phase, 20 Water Houses will be deployed** in Rome and related provincial districts, although the project aims at rolling out up to 100 installations over the next three years.

**ACEA-EATALY: AN AGREEMENT WAS SIGNED TO ENHANCE ROME WATER**

Enhancing Rome water as a primary asset and fundamental resource to be used in an increasingly sustainable fashion and extolling the relationship between Rome's excellent water quality and high quality food products. These are the goals underlying the agreement that **Acea and Eataly** signed in January 2014 for a three-year partnership under which **a number of projects will be launched to engage and raise awareness among Roman citizens**, especially families and children, **with respect to the value of water resources and quality food**. In October, two restored "**Nasoni**" (the typical big-nose shaped Roman fountains deployed throughout the city) were **installed in the Rome-based company store** located at Stazione Ostiense to provide water to visitors free of charge. On that occasion, onlookers were presented with *Acea drinking bottles*, a gadget designed by the company showing the main quality standards of the water being distributed. Moreover, the "**Conversazioni**" sculpture-fountain built by Oliviero Rainaldi and owned by Acea was installed at the former Air Terminal.

Although the **good quality of the drinking water distributed** is, as mentioned earlier, guaranteed by constant testing and monitoring activities conducted by Acea, **users not always appear to be aware of this**. Therefore, Acea administers target-oriented surveys to identify users' habits and perceptions and **continues to launch awareness-raising campaigns** (see boxes on *Water Houses* and agreement with Eataly). The surveys that are conducted on **customer satisfaction** twice a year include **specific questions on the perception of water quality** (both in Rome and other ATO 2 municipalities). With regard to taste, smell and clearness of the water distributed in Rome and Fiumicino, the opinion proved once again to be on the upside (7.2 out of 10): 85.5% of the respondents felt that as far as water quality was concerned the service supplied met their expectations; the same overall satisfaction figure decreased to 6.3 out of 10 in provincial districts, with 70% of the respondents rating the service as in line with expectations. Moreover, the survey

showed that in Rome **51.5% of the respondents normally drank tap water**, while 27% of them never did, such percentages increasing to 27.5% and 55%, respectively in the provincial districts. The main reasons stated for not drinking tap water in the city included the habit of drinking mineral water (52.5%), while the lack of trust in hygiene conditions prevailed in provincial districts (63.5%).

**THE WATER TREATMENT AND SEWERAGE SERVICE RUN BY ACEA ATO 2**

Integrated Water Service operations include **the collection of wastewater** and its **treatment prior to being returned to the environment**. The treatment system in **ATO 2 – Central Lazio** consists of "**catchment basins**", territorial units comprising **wastewater treatment plants, sewerage networks** connected thereto and the relevant **water lifting stations**. Capabilities managed at 31/12/2014 included **541 sewerage lifting stations** (of which **173** in the Rome

municipal area), **174 treatment plants** (of which **33** in the Rome municipal area) and approximately **6,084 km of sewerage** (of which approximately **4,088 km** managed for Rome), without considering the number of sewerage connections.

**Technical support operations** performed during the year **on the networks underlying the water treatment and sewerage system** in Rome and in the other municipalities managed by ATO totalled approximately **17,000 due to failures** and **3,500 due to scheduled maintenance work** (see Table 35). In addition to repairing any damage identified, operations performed on the network often extend to include accurate inspection work on a larger section, so as to **plan any improvement activities** aimed at maximising operating conditions. Besides operation and maintenance activities, work to **expand, complement and enhance the sewerage network** continued, with special reference to the municipalities recently acquired by ATO 2.

**TABLE 35 – MAIN OPERATIONS ON SEWERAGE NETWORKS AND CHECKS PERFORMED ON WASTEWATER IN ATO 2 – CENTRAL LAZIO (ROME AND MUNICIPALITIES UNDER MANAGEMENT) (2014)**

<b>TYPE OF WORK</b>	<b>(NO.)</b>
Operations due to sewerage network failure	About <b>17,000 operations</b>
Scheduled maintenance work on sewerage network	About <b>3,500 operations</b>
Wastewater quality control	<b>6,001 samples</b> collected and a total of <b>181,940 tests</b> performed on wastewater
Network extension	<b>2.29 km</b> of sewerage network extension
Network improvement	<b>14,247 network improvement operations</b> totalling <b>5.5 km of network improved</b>

The **wastewater disposal system** is subject to **constant control**. Monitoring activities are also performed on a regular basis to check the data indicating the quality of the water coming into and flowing out of the purifiers as well as the impact on the receiving water bodies, i.e. the Tiber and Aniene rivers (also see *Environmental Issues, Water Area*). **The purification system control rooms monitor 299 plants (including treatment plants and sewerage lifting systems)**. Relying on cutting-edge technology, **Acea Ato 2's Environmental Operations Centre constantly monitors remotely-collected data** relating to **hydrometric and pluviometric information** concerning the Rome area, such data being shared with the Rome Hydrographic and Marigraphic Office. The data on the **quality of the water along the urban stretches of the Tiber and Aniene rivers were also monitored**. **181,940 tests were performed on wastewater** by Acea Ato and Laboratorio in 2014.

### THE IWS IN ATO-5 - SOUTHERN LAZIO - FROSINONE

Acea Ato 5 obtained the following **Management System certifications: Quality** (UNI EN ISO 9001:2008), **Environment** (UNI EN ISO 14001:2011), **Safety** (OHSAS 18001:2007) and **Energy** (ISO 50001:2011) to engage in **network and plant design, construction, maintenance and restoration operations** conducted across the ATO 5 Southern Lazio – Frosinone territory. The four systems are managed on an integrated basis and in 2014 all QESE Management System procedures were redefined and published on the corporate intranet. The service management of the 86 municipalities that fall within the relevant ATO is taken over on a gradual basis. Acea Ato 5, in conjunction with the local authorities, performs a **pre-emptive sanity check on the infrastructure** (networks and plants) and if any situations of non-compliance are detected, it must wait for the municipalities concerned to perform the actions

required to correct any such non-compliances prior to running any service for them. During the course of 2014, no new municipalities were added. Therefore, at 31 December 2014 **the Integrated Water Service** (aqueduct, sewerage and treatment) was delivered in **83 municipalities**. The **target population covered was approximately 460,000 inhabitants**, that is more than 95% of the total population. Two out of scope municipalities (Conca Casale and Rocca d'Evandro) must be added to the above figure.

In 2014, Acea Ato 5 managed as a whole **600 km of drinking water supply network, 3,684 km of drinking water distribution network and about 1,723 km of sewerage network** (excluding connections) linked up to a complex system comprising plants and facilities that make it possible to run the aqueduct, treatment and sewerage service. Every year, work for upgrading and refurbishing the plants as well as complementing, extending and improving conduits and networks is completed. Water network structure and **leakage detection and recovery** analysis activities continued to be performed, with **more than 250 operations being completed to detect hidden leakages**. In 2014, the main operations were completed in the municipalities of Sora and Cassino.

Acea Ato 5 is gradually carrying on the process for ATO 5 - Southern Lazio - Frosinone hydrosanitary **network digitalisation**. To this end, data are being input into the **GIS** (Geographic Information System), with **60 km of water network** being digitalised at 31/12/2014. All water sites (wells, springs, reservoirs/dividers) and purification and sewerage lifting plants were geo-referenced to enable technical personnel to identify the sites that need servicing more readily. With regard to sewerage network mapping, a surveying campaign was completed, with special emphasis on the municipalities of Arce, Colfelice, Piglio and S. Giorgio a Liri, with the collected data being fed into an information system. The requirements to

import the Regional Technical Charter (CTR, Carta Tecnica Regionale) of the province of Frosinone into the GIS are also being reviewed.

### THE AQUEDUCT SERVICE MANAGED BY ACEA ATO 5

The water networks and supply sources are partly **controlled remotely**: data pertaining to water flow, tank level, pump start/stop and related electrical parameters are collected. A gradual system implementation scheme has been devised for the rest of the territory. In this connection, a partnership was formed with Group companies Acea, Gori and Acea Gori Servizi to identify a new software platform capable of meeting more challenging standards in respect of data integration, reporting and operating reliability. Further to an accurate market analysis, a software package known as "Wonderware" was identified, such software being already used by other Group companies. As a result, besides field operations for the installation of additional tools and components to ensure a more refined and detailed monitoring of the water sites already controlled remotely, a campaign to migrate the monitored plants to the new platform was also launched.

Finally, the **installation of new metres or replacement of those not working properly** continued in 2014, involving **3,566 operations**. Table 36 shows the main **routine and extraordinary maintenance work** carried out during the year on the water networks required to deliver the drinking water supply service in Frosinone and in the other municipalities under management, as well as the **checks performed on the quality of the drinking water supplied**.

**TABLE 36 – MAIN OPERATIONS ON AQUEDUCT NETWORKS AND CHECKS PERFORMED ON DRINKING WATER IN ATO 5 - SOUTHERN LAZIO (FROSINONE AND MANAGED MUNICIPALITIES) (2014)**

<b>TYPE OF WORK</b>	<b>(NO.)</b>
Operations for aqueduct network failure	About <b>31,900 operations</b>
Scheduled maintenance work on aqueduct network	About <b>1,100 operations</b>
Meter installations (including new and replaced metres)	<b>3,566 operations</b> (1,875 new and 1,691 replaced)
Water network extension	<b>2.2 km of water</b> network extension
Water network improvement	<b>14 network improvement operations</b> totalling <b>6.9 km of network improved</b>
Drinking water quality control	<b>1,402 samples</b> collected and <b>71,842 tests</b> performed on drinking water

With respect to **water supply uptime**, in 2014 **348 stoppages** proved necessary, of which **175 referring to urgent stoppages** (due to pipe failures) and **173 referring to scheduled stoppages**.

**TABLE 37 – NUMBER, TYPE AND DURATION OF WATER SUPPLY STOPPAGES IN ATO 5 (2012-2014)**

TYPE OF WORK	2014
Urgent stoppages (No.)	175
Scheduled stoppages (No.)	173
<b>Total stoppages (No.)</b>	<b>348</b>

Acea Ato 5 carries out monitoring activities to keep a check on the **quality of the water** distributed for drinking use as well as water returned to the environment. **The tests performed on the drinking water supplied**, which are performed with the support of LaboratorioRI, are conducted on samples collected from springs and wells, supply systems, reservoirs and along the distribution networks. **The frequency of the tests and sample collection points**, both exceeding the number laid down by current law provisions (Legislative Decree No. 31/2001), **are defined taking into consideration a number of variables**, such as volumes of water distributed, population covered, network and infrastructure conditions and specific characteristics of local springs.

Since July 2013, following a resolution by the Authority for Electricity, Gas and Water, Acea Ato 5 has been publishing on its website ([www.aceaato5.it](http://www.aceaato5.it)) the main drinking water quality standards divided into “isoquality areas”

(i.e., areas with equivalent average water quality) for anyone wishing to view such data. Acea SpA coordinates customer satisfaction surveys conducted for the Group companies. As part of the of the 2014 customer satisfaction reviews, Acea SpA collected **the feedback on drinking water quality provided by a sample representing Acea Ato 5 customers**: the rating given for taste, smell and clearness of the water supplied scored 5.85 out of 10, with 59.5% of the respondents believing that the service was in line with expectations. However, as little as 20.5% of the respondents stated that they drank tap water on a regular basis, while 65.5% never did, the main reason (63.5%) given by the latter being a lack of trust in hygiene conditions.

## THE TREATMENT AND SEWERAGE SERVICE RUN BY ACEA ATO 5

The Integrated Water Service includes the collection of wastewater and its treatment prior to being returned to the environment. The treatment system in **ATO 5 – Southern Lazio** consists of “**catchment basins**” comprising **wastewater treatment plants, sewerage networks** connected thereto and the relevant **water lifting stations**. Capabilities managed at 31/12/2014 included **201 sewerage lifting stations, 130 treatment plants and 1,723 km of sewerage**, without considering the number of sewerage connections.

In 2014, contractors performed **583 repair operations** on the networks serving the treatment and sewerage system, with an average of **53 operations per month**. In addition to operation and maintenance tasks, work for the **extension, integration and improvement of the sewerage network was carried on** (see Table 38).

**TABLE 38 – MAIN OPERATIONS ON SEWERAGE NETWORKS AND CHECKS PERFORMED ON WASTEWATER IN ATO 5 – SOUTHERN LAZIO (FROSINONE AND MUNICIPALITIES UNDER MANAGEMENT) (2014)**

TYPE OF WORK	(NO.)
Operations due to sewerage network failure	About <b>3,900 operations</b>
Scheduled maintenance work on sewerage network	About <b>150 operations</b>
Wastewater quality control	<b>1,532 samples</b> collected and a total of <b>24,611 tests performed on wastewater</b>
Network extension	<b>2.4 km of sewerage network extension</b>
Network improvement	<b>23 network improvement operations, totalling 2.7 km of network improved</b>

## PRICING POLICY

### ELECTRICITY SERVICE PRICING

The Italian electricity sales market consists of the following segments: (i) the “**free market**”, in which the consumer interacts directly with the operator chosen for the supply of the service; (ii) the “**enhanced protection service**”, where the service is provided to the customer **under the contractual terms and conditions and pricing<sup>58</sup> laid down by the Authority for Electricity, Gas and the Water System (AEEGSI)**, i.e. the national body governing the industry, and (iii) the “**safeguarded service**”.

The **costs** shown on the energy bill **refer to four expense items: sales service, network or grid and metering service, system-related overheads and taxes** due.

The **sales service** is the most significant financial item, amounting to about half of the total cost - which is normally relied upon for free competition purposes<sup>59</sup> - and it includes the prices that the supplier incurs for the procurement, marketing and dispatching of energy to customers. The **network service**, the price of which is set by the AEEGSI according to criteria applicable nation-wide and taking into account inflation, investments and efficiency goals, pertains to **operations for the distribution** of energy and meter management. **System-related overheads** include, among other things, incentives for renewable sources, promotion of energy efficiency, system research and electricity bonus. Finally, **indirect taxes** levied on the amount of energy consumed and on the final total cost of the bill.

The **enhanced protection service** is still the reference segment for **Italian household customers** (individuals and families), with a **subscription rate of around 74%<sup>60</sup>** compared to the total population (78% at 31/12/2012). With regard to this segment, in 2014 a “**standard**” **consumption of 2,700 kWh/year, with a power supply of 3 kW would yield an annual electricity cost of about 515 euros** (19.1 € cents/kWh), in line with the previous year<sup>61</sup>. The breakdown of cost items (see Chart 20) bears out, in particular, the steady decrease in the procurement item and the increase in system-related overheads and network costs.

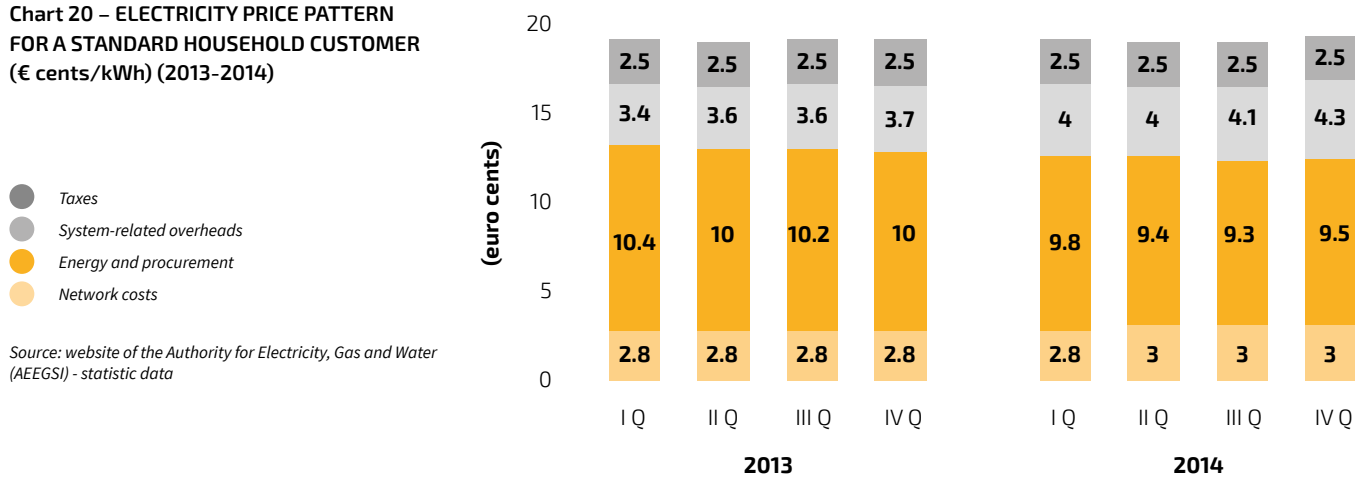
58 The pricing is established by the AEEGSI and is updated quarterly based on the costs incurred by the Sole Purchaser to meet enhanced protection customers’ requirements on the electricity wholesale markets.

59 The commitments that free market operators are required to undertake in order to carry on their business in compliance with fair competition principles include providing their potential customers with a cost comparison chart. It reflects the cost an average consumer would incur by subscribing to an offer compared to the cost calculated under the conditions set by AEEGSI for the enhanced protection market.

60 Based on the number of pick-up points required for the enhanced protection service at 31/12/2013 (AEEGSI latest report March 2014 - data and statistics - evolution of the enhanced protection service).

61 Average values in 2013 and 2014 quarters (AEEGSI figures - Percentage breakdown of electricity price for a standard household customer).

**Chart 20 – ELECTRICITY PRICE PATTERN FOR A STANDARD HOUSEHOLD CUSTOMER (€ cents/kWh) (2013-2014)**



Source: website of the Authority for Electricity, Gas and Water (AEEGSI) - statistic data

With regard to the **enhanced protection service, for all customers owning a digital meter** that can read consumption in different time bands **a dual hourly rate will apply**, as laid down by the AEEGSI, ensuring greater savings for usage during evening hours, during week-ends and public holidays.

For customers facing financial hardship or having large families<sup>62</sup>, the Authority, upon

recommendation of government authorities, **introduced the “electricity bonus”,** consisting of an electricity cost rebate. **Cost savings are likewise granted to customers whose health conditions** require them to use life-saving energy-consuming electromedical equipment. At 31/12/2014, **Acea Energia’s customers<sup>63</sup> eligible to receive the bonus** in the protected and free market alike **totalled 20,067** of whom 433 due to health conditions

and 19,634 due to financial hardships.

**Acea Energia’s sales endeavours on the free market** are aimed at **satisfying different needs depending on the types of customers:** from households to large industrial customers. Acea Energia developed its **2014 commercial proposals** based on this criterion (see relevant box).

#### ACEA ENERGIA'S 2014 COMMERCIAL PROPOSALS ON THE FREE MARKET

In 2014, Acea Energia’s commercial proposals intended for the **mass market segment**, comprising residential customers, freelancers, commercial businesses and small and medium-sized companies, were developed with a view to **enhancing the types of offers by launching promotions** targeted to specific customers. As part of this strategy, the **“Luci all’Olimpico”** (Lights On at the Olympic Stadium) competition was launched in conjunction with AS Roma and SS Lazio football clubs. The purpose was to present free market customers with shirts signed by the champions of the two teams and giving them the opportunity to watch Roma and Lazio matches seating in VIP stands as Acea Energia guests. During the period, efforts were also made to increase Acea Energia’s presence as **gas market operator:** the **“Acea Unica 2+2”** product was launched, featuring a fixed price for two years and two months of free of charge supply of the so called **“gas component”** (i.e., the component covering the purchasing costs incurred by the company for raw material).

With reference to the **Small Businesses** segment, consisting of customers whose consumption pattern is not comparable to that of Business customers but whose specific needs are different from those of household customers, Acea Energia endeavoured to ensure a widespread presence at industry events and trade shows, entering into partnerships with different players with a view to devising specific co-branded propositions.

With regard to **Business and Industrial** customers, negotiations take place on a one-to-one basis, whereby customers can benefit from the support of a dedicated account to identify the most suitable plan according to their energy profile.

Acea Energia also endeavours to cater for customers who need to meet **environmental compliance and protection** requirements, supplying them with **CO-FER certified energy**, certifying that energy is sourced from plants powered by renewable sources.

#### WATER SERVICE PRICING

In 2014, the **Authority for Electricity, Gas and Water**, in its capacity as the National Board Governing and Controlling Water Services, continued its efforts aimed at establishing and spreading a **fair, definite, accountable and non-discriminatory pricing system** whereby **water services can be managed and run under conditions of efficiency and economic-financial balance**, pursuant to the **full cost recovery** EU principles (full coverage of the industrial and environmental costs of the services) and the **“polluter pays principle.”** As a result, AEEGSI adopted guidelines providing procedural clarifications on price regulations

and operating aspects for pricing purposes (Resolution No. 204/2014/R/Idr; Resolution No. 2/2014; Resolution No. 3/2014) and defining the environmental costs of water resources with reference to the 2015 Water Pricing Method (Metodo Tariffario Idrico) (Resolution No. 662/2014/R/Idr). Consequently, the AEEGSI approved the regulatory framework and pricing provisions for the 2014-2015 two-year term as recommended by the Tuscany Water Authority (Autorità Idrica Toscana), ATIs 1, 2 e 4 of Umbria e ATO 2 – Central Lazio.

In the period under review, the AEEGSI also completed the procedures governing the **price portion corresponding to the return on**

**invested capital to be returned to users, which was cancelled by the referendum held in 2011** (Resolution No. 163/2014/R/Idr). In this respect, the AEEGSI drafted the lists of the relevant entities whose proposals have been approved, including Acea Group ATOs: ATO 2 - Central Lazio and Tuscany ATOs, for which an amount to be paid back to users was established; ATO 3 - Sarnese Vesuviano and ATI 2 Umbria, for which no amount to be paid back was established.

The **effective average prices applied by the leading water companies of the** Acea Group are shown in Table 39.

62 For detailed information regarding the conditions entitling customers to apply for and receive the electricity bonus, please refer to the specific section on the AEEG website at [http://www.autorita.energia.it/it/bonus\\_sociale.htm](http://www.autorita.energia.it/it/bonus_sociale.htm).

63 Data refers to the number of pick-up points in respect of which aids are available.



**TABLE 39 – AVERAGE WATER PRICES APPLIED BY ACEA GROUP COMPANIES (2014)**

COMPANY	€/cu m
<b>Lazio/Campania</b>	
Acea Ato 2 SpA – Central Lazio	1.28
Acea Ato 5 SpA – Southern Lazio	1.68
Gori SpA – Sarnese Vesuviano	1.18
<b>Tuscany/Umbria</b>	
Acque SpA – Basso Valdarno	2.12
Publiacqua SpA – Medio Valdarno	2.39
Acquedotto del Fiora SpA- Ombrone	2.40
Umbr Acque SpA – Umbria	2.16

## PRICING DISPUTES

In 2014, the Regional Administrative Court of Lombardy filed the sentences relating to the appeals lodged in 2013 by **Acea Ato 2, Publiacqua, Acquedotto del Fiora, Gori, Umbr Acque, Acquedotto del Fiora and Gesesa** against an AEEGSI Resolution pertaining to the Temporary Pricing Method (Resolution No. 585/2012/R/Idr). The judges upheld the heads of complaint pertaining to (i) **failure to comply with the full cost recovery principles** and (ii) a number of infringements of the regulatory principles, both being however largely remedied by the AEEGSI in the Water Pricing Method for the 2014-2015 periods (Resolution No. 643/2013/R/Idr). By contrast, the aforesaid Regional Court did not uphold (i) the complaints relating to the **retroactivity of the instructions given to the relevant entities and operators as well as their impact on previous contractual relationships**, (ii) the complaint regarding the calculation tool as determined by the AEEGSI and (iii) the dispute on financial parameter valuation. On 27 June 2014, the Attorney General filed an appeal on behalf of the AEEGSI against the sentences issued by the Regional Administrative Court of Milan on the matters upheld through the appeals lodged by the operators.

With regard to **Acea Ato 5** and the disputes on price adjustments relating to 2006-2011, after filing a complaint before the Regional Administrative Court of Lazio to **challenge the final report submitted by the Extraordinary Commissioner (Commissario ad Acta) in 2013** and then waiving further proceedings - the Authority governing the integrated water service (locally known as "Autorità d'Ambito") has not yet provided any feedback to the relevant entities, with Acea Ato 5 currently invoicing adjustments relating to the 2006-2011 period as pursuant to the terms laid down by the AEEGSI. Regarding the 2012-2013 pricing, following a request for a pricing review and a formal warning notified by the AEEGSI, on 5 March 2014 the aforesaid Authority resolved to apply, initially, the maximum pricing multiplier allowed. Likewise, following an additional request for a pricing review for the 2014-2015 period and a formal warning notified by the AEEGSI, on 14 July 2014 the Authority as referred to above **approved the pricing recommendation submitted by the Operator for the specified two-year term as well as the related €62m Investment Plan** submitted by the company. Acea Ato 5 applied the approved pricing based on the aforesaid measures.

With regard to **Gori**, in compliance with the provisions adopted by the relevant public bodies governing pricing and further to the **resolutions issued by the Extraordinary Commissioner of the aforesaid Authority on 30 June 2014 and 3 July 2014** – the latter being in turn adopted under Article 31, Annex A, Resolution No. 643/2013/R/Idr of the AEEGSI – the Operator charged the **2014 pricing component known as "Recupero partite progressse ante 2012" (recovery of previous entries prior to 2012)**. Several entities, including municipal authorities, associations and users, disputed the resolutions before administrative courts and started civil proceedings to seek cancellation of the invoices containing adjustment-related amounts. As regards administrative proceedings, a hearing is pending on the matter, while civil proceedings were from time to time removed from the Court's register insofar as **institutional discussions were underway between the parties**, following which collection was suspended and credit notes to the extent of the amount corresponding to adjustments were issued to the users who started legal actions.

Finally, it should be stressed that by Resolution No. 380/2014/E/Idr of July 2014 the AEEGSI started proceedings against Gori for the infliction of sanctions due to alleged violations of the obligations pertaining to **pricing, data collection procedures and the application of the pricing quota referring to the water treatment service**.

## CUSTOMER CARE

### CUSTOMER CARE POLICY

Customer care is provided by the operating companies that run the services themselves. The parent company, through its Customer Care Unit, endeavours to provide consistent and integrated customer management to the maximum extent possible, in compliance with industry regulations and local specific conditions.

In 2014, the Group placed a major emphasis on the **development of customer management and care information systems**. In addition to introducing the new **Customer Relationship Management (CRM)** system for the energy free market, the **ACEA2PUNTOZERO Programme** was launched. The scheme will be developed over the next two-year term and is expected to have a strong positive impact on the organisation and running of operating processes and the management of relationships with customers (see relevant box in *Corporate Identity*, under

*Corporate Governance and Management Systems*). Among the many projects included in the ACEA2PUNTOZERO programme, special emphasis is placed on two of them with regard to customer care: (i) **the evolution of the CRM**, aimed at developing a competitive business model based on the adoption of a customer-centric strategy and capable of providing customised products/services, and (ii) **the implementation of a sophisticated meter-to-cash flow system** (metering, billing, credit) with a view to maximising processes and reducing customer response time.

In 2014, Acea strengthened the relationship built over the years **with Consumer's Associations**, promoting a number of **meetings** to address major problems affecting electricity market customers (see *Institutions and the Company*).

Acea Energia carried on the procedures already started in the previous year to **prevent unsolicited contracts**, ensuring **protection for customers** engaging in the free market, in addition to the provisions laid down by the industry Authority. According to these procedure:

- after signing a contract, customers who subscribe to a free market offer through door-to-door sales channels should be contacted by phone (**Check Call**) to **ensure that the contents of the contract signed were clearly illustrated and that the agent's behaviour was fair**;
- customers who subscribe to a free market offer through teleselling must be further protected through both a **Quality Call** to establish the customer's actual willingness to be signed up, and a **playback** - performed by Acea Energia - **of all telephone recordings produced by sales agents**.

If the checks are not satisfactory, **the new offer activation process will be prevented from being fed into the information systems.**

As part of the **agency agreement** governing the relationship between the parties, the Company also continued to (i) carry out **performance monitor** activities, with fines being inflicted in the event unfair trade practices are detected, and (ii) provide **mandatory training to sales agents** (see relevant box in *Suppliers*, under *Suppliers' Assessment*).

In 2014, Acea Energia updated Agency and Teleselling contracts as well as general terms and conditions of its own contract execution proposal, implementing the new provisions

reflected in Legislative Decree No. 21 dated 21 February 2014 in order to supplement the requirements already set forth in the Consumer Code<sup>64</sup>, including the customer's signature in order that the contract may be valid, an extension of the cooling off period and a greater transparency on all cost items making up the commercial offer.

Pursuant to Resolution No. 153/12 issued by the AEEGSI, during the year Acea Energia also handled **894 requests submitted by customers** who had been acquired by other wholesalers through unfair trade practices -**either on the free market or enhanced protection market** - who wished to return to the company.

In the event of **sales-related disputes** with the company, customers **may resort to the joint settlement procedure**, an out-of-court settlement process **adopted by Acea for both the water service run by Acea Ato 2 and Acea Ato 5** as well as the **electricity service** operated by Acea Energia and Acea Distribuzione (see settlements in 2014 under *Institutions and the Company*). **Litigations during the year** between Acea and its customers are detailed in the relevant box.

## DISPUTES WITH CUSTOMERS

Legal proceedings **started by customers** against companies of the Acea Group mainly concerned **disputes relating to charges for service delivery, refunds and service activation delays.**

Disputes at 31/12/2014 totalled **502**, in line with 2013 (455 disputes). By contrast, the average value of this type of disputes reduced in the period under review, standing at approximately 2,360 euros (2,900 euros in 2013). While litigations with customers were higher, their resolution was quicker and their financial impact was lower.

## CONTACT CHANNELS AND PERFORMANCE

Acea provides customers with several contact channels: a **corporate switchboard, commercial toll-free numbers and toll-free fault reporting numbers**, as well as (physical and online) helpdesks/counters. Customers can also reach the Company by **letter, fax** and through the **websites** ([www.acea.it](http://www.acea.it), [www.aceaenergia.it](http://www.aceaenergia.it), [www.aceaato2.it](http://www.aceaato2.it), [www.aceaato5.it](http://www.aceaato5.it)), while large accounts, such as companies and institutions, can rely on dedicated resources.

The main operating companies rely on **Acea8cento Spa** for the management of one or more **remote channels** - telephones, faxes, webforms, mail - mainly for commercial purposes<sup>65</sup>. The service delivered by the contact centre aims to maximise operations while guaranteeing quality, promptness and consistency in meeting customer's requests to the extent as possible.

Furthermore, Acea8cento **identifies possible areas for improvement** in the "remote" customer management area, with **specific projects being implemented** to this end: **in 2014**, the company's effort focused on **operational streamlining** through a new telephone platform implemented in 2013 using Cisco technology. More specifically, **inbound call routing channels were implemented**, ensuring an **optimum (outsourced)**

## TELEPHONE CONTACT CHANNELS

- **Acea switchboard: (+39) 06 57991**
- **Direct commercial toll-free number for the enhanced protection service: 800 199 900**
- **Electricity commercial toll-free numbers for free market customers: 800 130 334**
- **Gas commercial toll-free number for free market customers: 800 130 338**
- **Toll-free number for free market offers: 800 130 333**
- **Commercial toll-free number of Acea Ato2 water service: 800 130 331**
- **Toll-free number to report Acea Ato2 water failures: 800 130 335**
- **Commercial toll-free number of Acea Ato5 water service: 800 639 251**
- **Toll-free number to report Acea Ato5 water failures: 800 191 332**
- **Toll-free number to report electricity and public lighting failures in Rome: 800 130 336**
- **Toll-free number for the cemetery lighting service: 800 130 330**
- **Toll-free number for remote heating: 800 130 337**

**Note:** In all dealings with its customers, Acea guarantees full compliance with data protection provisions (as under Legislative Decree No. 196/2003, as amended from time to time).

**management of call peaks** (overflow) vs. available capacity of Acea8cento operators. A more streamlined contact management enabled back office operators to perform more efficiently and effectively, **improving the level of response to customers' needs.**

In 2014, the parent company carried out routine **monitoring on the quality of the telephone channels and physical helpdesks (counters) through mystery client surveys.** In order to maximise the effectiveness of this action, **the number of meetings in which the survey results were presented** to contact operators on a regular basis increased, highlighting the strong and weak points of each channel. Again upon the initiative of the parent company, a benchmark survey was conducted in 2014 on call centre operating procedures involving several companies from the United Kingdom. The visits

completed by Acea workgroup allowed best practices to be analysed in the areas concerned with regard to outsourcing contract management, performance monitoring, operators' training, policies for an integrated management of the channels, favouring self-service and digital channels.

The **redevelopment of the overall customer relationship** strategy according to a multichannel model leading to an increase in customer satisfaction is now part and parcel of the aforementioned ACEA2PUNTOZERO Programme.

**The toll-free numbers dedicated to electricity and gas sales** (for enhanced protection and free market customers) ensure **24h service**, while **Acea Ato 2 opened three new offices** for helpdesk operations (see below).

<sup>64</sup> The provisions under Law Decree No. 47 dated 28 March 2014 were also applied, such decree being written in law pursuant to Law No. 80 dated 23 May 2014 80 ("Urgent measures for emergency housing, the construction market and the 2015 Expo trade fair").

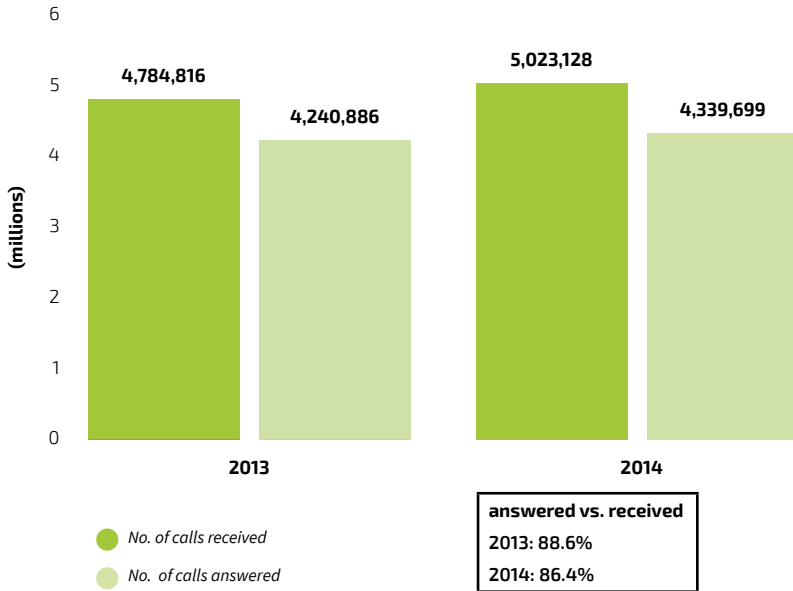
<sup>65</sup> In addition to commercial channels, Acea8cento deals with the numbers for reporting failures affecting the water service run by Acea Ato 5 and Gori as well as the cemetery lighting service delivered by Acea Distribuzione.

During the year, **Acea toll-free numbers** handled **more than 5 million calls**<sup>66</sup> as a whole. Compared to the previous year, roughly a **5% increase** was observed compared to the 4.8 million calls received the year before. There was an

increase in calls to the (i) commercial (electricity and gas) toll-free number for Acea Energia free market, as in 2014 the company extended its customer base considerably; (ii) toll-free number to report failures of the Rome public lighting

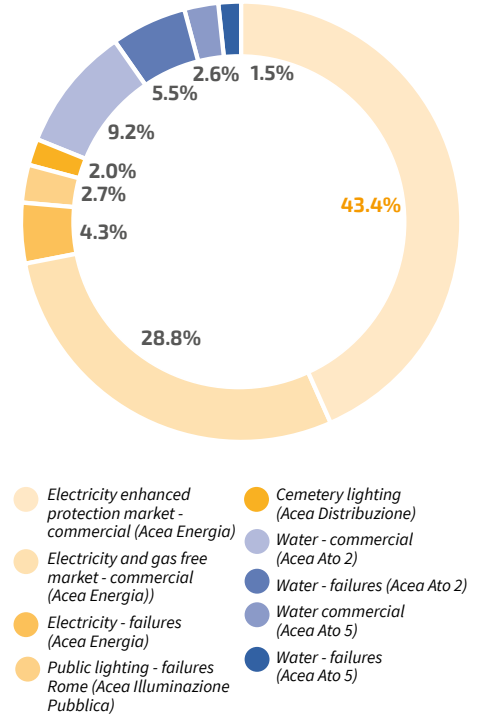
system, which are strictly related to the copper theft onslaught (also see *Quality in the Public Lighting Area*), and (iii) toll-free commercial numbers of Acea Ato 2 and Acea Ato 5, as detailed below (Charts 21 and 22 and Table 40).

**CHART 21 – TOTAL TELEPHONE CALLS TO ACEA FREE-TOLL NUMBERS (2013-2014)**



**Note:** 2013 figures were restated to reflect Acea Ato 5 toll-free numbers as well.

**Chart 22 – PERCENTAGE BREAKDOWN OF INBOUND CALLS TO ACEA TOLL-FREE NUMBERS (2014)**



The Authority for Electricity, Gas and Water evaluates the **call centres of electricity and gas selling companies** and draws up a **public ranking** based on **global scores**<sup>67</sup> (TQI) assigned to each operator using **six-month surveys**. According to the current rankings as drawn up by the Authority, between the first-half of 2013 and the first-half of 2014 **2 positions were lost** (from 14<sup>th</sup> to 16<sup>th</sup>) **with regard for the service delivered by Acea Energia call centre**: between the two six-month periods, the “perceived quality” (CSP) dimension improved, while the “service quality” (QP) dimension declined<sup>68</sup>. With regard to the **other Acea toll-free numbers** (i.e., water commercial, fault reporting for the electricity, water, public and cemetery lighting services), the main performance indicators for the last two years are shown in Table 40. While **service levels** as measured by the

**percentage ratio of answered calls vs. total calls received** remained high, **electricity service levels showed a slight decrease compared to 2013**: the performance of the toll-free number available to report network failures was affected by the adverse weather conditions occurred during some periods of the year, which resulted in call peaks. **The level of service delivered by Acea Ato 2 commercial toll-free number** also showed a drop, with calls increasing by 17% compared to 2013. The reasons underlying the calls pertained to enquiries concerning the changes made to billing frequency at the beginning of the year. A billing process split based on annual consumption brackets ensures a more effective monitoring of consumption, streamlines payment procedures for the customers and helps use water resources more rationally. High levels of contact were detected at year end due to an upsurge in debt collection operations. A slight improvement in the water fault reporting

telephone service was seen, with operations being underway since summer 2014 to merge this service with the electricity fault reporting switchboard. In addition to achieving greater efficiency, this organisational choice aims to extend the operating and monitoring procedures already adopted for the electricity service to the water service as well, as pursuant to industry regulations. Data relating to Acea Ato5 call centre was shown for the first time: an increase in calls to the commercial toll-free number caused performance levels to drop in 2014 over 2013: calls were primarily placed during the last three months of the year following the issue of invoices reflecting charges pertaining to previous years, as pursuant to provisions laid down by the industry Authority. The fault reporting service reached again excellent levels.

66 In 2014, consistent with the information provided under Customers and Community, the performance of Acea Ato 5 - a wholly-owned company of Acea SpA operating in the Lazio region - was also shown. To this end, 2013 figures were also restated for comparison purposes.  
 67 The overall score consists of three partial scores, two referring to quality delivered data – access to service (AP) and service quality (QP) – and another concerning the results of surveys conducted by the Authority on the quality perceived by customers – degree of satisfaction for customers reaching the call centre (CSP).  
 68 The ranking referring to the quality of the call centres operated by electricity and gas selling companies drawn up using the data of the first-half of 2013 is available on the Authority for Electricity, Gas and Water website ([www.autorita.energia.it](http://www.autorita.energia.it)). Effective 2015, Resolution No. 580/2014 introduced a new evaluation method that supersedes the ranking system.

**TABLE 40 - MAIN PERFORMANCE INDICATORS OF ACEA TOLL-FREE NUMBERS (2013-2014)**

PERFORMANCE INDICATORS	NO. OF TOTAL CALLS RECEIVED		NO. OF TOTAL CALLS ANSWERED		SERVICE LEVEL (% OF ANSWERS ON CALLS RECEIVED)		AVERAGE WAITING TIME BEFORE ANSWER (MIN/S)		AVERAGE CONVERSATION TIME (MIN/S)	
	2013	2014	2013	2014	2013	2014	2013	2014	2013	2014
Power failures (Acea Distribuzione) (*)	215,281	216,577	206,037	201,342	95.7%	93.0%	44"	1'08"	1'57"	2'04"
Public Lighting (Acea Illuminazione Pubblica) (*)	107,161	133,139	100,952	122,176	94.2%	91.8%	53"	1'21"	1'38"	1'41"
Cemetery lighting (Acea Distribuzione)	88,097	98,315	79,636	81,684	90.4%	83.1%	1'16"	2'09"	4'04"	4'07"
Water commercial (Acea Ato 2)	398,595	464,465	341,130	370,339	85.6%	79.7%	1'46"	2'59"	3'54"	4'12"
Water failures (Acea Ato 2) (*)	265,195	275,559	234,327	248,267	88.4%	90.1%	2'07"	1'53"	2'53"	2'35"
Water commercial (Acea Ato 5)	99,436	132,479	83,776	102,899	84%	78%	1'30"	2'43"	3'17"	3'32"
Water failures (Acea Ato 5)	69,913	74,726	61,987	67,486	89%	90%	42"	34"	2'35"	2'34"

**Note:** The table does not show the performances of the commercial toll-free numbers of the electricity service that are subject to AEEGSI regulation and commented on in the text. (\*) Calls handled by the automatic system or terminated by the customer during navigation within the interactive voice responder (IVR) are also considered as answers.

Customers can also access the **websites of the different service companies, whose visits increased considerably during the year:** **Acea Energia** website ([www.aceaenergia.it](http://www.aceaenergia.it)) scored **2,414,094 visits** in 2014 (up **40%** compared to the 1,731,876 visits in 2013), **Acea Ato 2** website ([www.aceaato2.it](http://www.aceaato2.it)) reached **727,423 visits** (up **47%** compared to the 494,625 visits scored in the previous year) and **Acea Ato 5** website ([www.aceaato5.it](http://www.aceaato5.it)) **totalled 199,451 visits** (up **39.5%** compared to the 142,993 visits in 2013). The websites of the operating companies may be accessed either directly or through the parent company's website at [www.acea.it](http://www.acea.it). The websites **feature online counters allowing customers to complete a number of contractual and commercial transactions**, send enquiries and check their bills and payments online.

**Acea Energia web channel** was further improved during the year by implementing, among other features, a **technical support form** enabling customers to receive information and quickly solve any access-related problems or difficulties. At 31/12/2014, **Acea Energia online counter** totalled **about 321,000 registered customers, up 220%** over 2013, underscoring the strong and fast-paced uptrend already witnessed between 2012 and 2013 (+230%). The main services offered during the year included:

- **viewing previous bills and payments;**
- **online payment** (all types of supplies can be paid by credit card);
- **e-billing** (available for all customers - it allows the bills to be viewed through a link sent by email, eliminating delivery times, involving no costs and protecting the environment);
- **e-mail notification services** (for free market customers – customers are notified in real time about the issue of bills and related deadline for payment);

- **electricity and gas self-reading** (also available for customers owing electronic metres). Moreover, an **app is available** for all the customers registered in the Customer Area of [www.aceaenergia.it](http://www.aceaenergia.it). The app allows a great number of operations to be completed using a **smartphone**.

With regard to the two water companies operating in Lazio, in 2014 the number of new registrations to **Acea Ato 2 online counter** stood at **16,883**, comprising **2,738 condominium users and 2,431 business users**, totalling **77,607 registered customers** (around 28% more compared to 2013), while **Acea Ato 5 online counter** scored **4,920 new registrations**, totalling **10,929 registered customers**, both showing a sharp uptrend. A **virtual assistant** (helpdesk function) was enabled on **Acea Ato 2 online counter**, guiding customers in the use of the different functions available. At the end of 2014, such functions included:

- **viewing previous bills and meter readings** (both notified and calculated);
- **account management** (it allows customer profiles to be updated, it makes it possible to combine household and business utility services with one single account using the “add utility service” feature, and view the “list of combined utility services” to manage;
- **delivery of self-metering;**
- **viewing contractual information** and the details of the utility services being managed;
- **new request** (this function **is available on Acea Ato 2 online counter only** and makes it possible to submit applications for transfer, takeover, cancellation and change of personal details or contact information). As a whole, **2,892 requests were received during the year** comprising the different types of operations as outlined above;
- **Acea Ato 5 online counter** allows requests

**for changes to the billing address** and complaints to be submitted, monitoring the outcome of such requests: in 2014, **393 complaints were filed**, of which **268** were processed within 11 business days (i.e., **68%** of total complaints).

Starting from last year, the two water companies' websites provide access to the main standards relating to the quality of water supplied by place of residence. The websites also provide useful information **on the occasion of extraordinary events**, as was the case during the unusual **cold spell** in November 2014, when information was provided on **how to protect water metres from freezing temperatures** in order to ensure their operation. In 2014, the “Billing History” area of **Acea Ato 2** website was extended to include invoices from 2011 to date. Users can view and print invoices as well as the payment form. With regard to **Acea Ato 5** website, the list of municipalities/areas that are scheduled for water operations during summer months was updated (c/w days and time bands), with a view to ensuring a better supply of drinking water in areas being affected by infrastructural problems. At the same time, monthly bulletins were published specifying the main sources of supply and their trend.

**The "physical" counters** designated for **electricity, gas and water service** customers are located in the **public hall of Acea Headoffice** in Piazzale Ostiense in Rome. Other counters are located at the Ostia Lido branch office, while **Acea Ato 2** runs additional **14 counters** covering the water service **across the province of Rome**. More specifically, in 2014 **Acea Ato 2** opened counters at Allumiere, Fiano Romano and Tolfa using office space provided by the relevant municipality authorities. A counter that was opened last year on an experimental **basis at the III City Council office** in Rome is also operational for **Acea Energia**. It opens once a week and its operational capabilities are limited<sup>69</sup>.

69 The counter was opened at the III City Council office in view of its location, as the office lies right at the other end of the counters operating at **Acea Headoffice** in Piazzale Ostiense and is therefore suitable for delivering services to customers in the north-east area of the city.

During the course of 2014, **275,126 customers accessed** the public hall of the Headoffice (for the services run by **Acea Energia and Acea Ato 2**), showing an **11% decrease** compared to the 307,816 customers in 2013.

The drop in accesses concerned all services, underscoring a downtrend in the energy area compared to the previous three-year term. Such a decrease pertained chiefly to the free market following an improvement of the billing processes. **Service levels**, as a function of the **percentage between customers served and total tickets issued**, proved again **adequate in 2014 with regard to the counters located at the**

**Headoffice**. With regard to the **energy sector**, it should be stressed that a new queue manager was introduced in mid 2013, involving a stricter recording of customers' calls to the helpdesk (previously linked to a system setting), resulting in a decrease in service level. Moreover, in addition to visitors the reception staff re-directed to the telephone service (as reflected in 2014 figures), the volumes relating to customers served as shown in the previous year's table included customers managed as part of the "Are you a counter-oriented customer?" project, whereby the project staff guided the customers to satisfy their needs online with the support of palmtops, PCs or by phone.

**Waiting time** for both **water service and energy service** customers were virtually unchanged compared to previous year performances. As to **Acea Ato 5**, queue managers were installed (or fitted with full reporting functions) at the **4 counters** in Frosinone, Sora, Cassino and Fiuggi in mid 2014: from June to December, customers served totalled 42,066, with a 97%, service level and an average waiting time of 50'. The high number of visitors following adjustment billing for past consumption had an impact on waiting time, which did not exceed half an hour until September.

**TABLE 41 - PERFORMANCE OF COUNTERS AT HEADOFFICE (2012-2014)**

	ELECTRICITY SERVICE ACEA ENERGIA (ENHANCED PROTECTION MARKET)			ELECTRICITY SERVICE ACEA ENERGIA (FREE MARKET)			WATER SERVICE ACEA ATO 2		
	2012	2013	2014	2012	2013	2014	2012	2013	2014
No. of tickets issued	175,505	183,341	163,546	66,906	72,469	61,986	38,576	52,006	49,594
No. of customers served	174,315	177,721	151,233	66,612	70,080	56,948	37,475	50,863	48,484
Service level (customers served/ tickets issued)	99%	97%	92%	100%	97%	92%	97%	98%	98%
Average waiting time (minutes)	44	43'25"	48'43"	45	49'14"	47'21"	31	15'24"	17'07"
Average service time (minutes)	10	11'07"	12'53"	10	11'52"	14'23"	12	9'31"	8'55"

**Written complaints** are managed by the operating companies according to internal procedures, with an information system enabling the relevant process to be followed throughout, from the time the complaint is filed up to its settlement. Regarding the **electricity service**, times and percentages of **response to written complaints/enquiries** represent **specific and general levels of commercial quality** for the selling company, such levels being **laid down by the National Authority**. In the event that the seller needs the distributor to provide **technical data** in order to reply to the customer, the distributor must – as per specific level – provide such data within 10 or 15 business days, depending on the type of data being requested. Replying to written complaints is also part of the **general quality levels** pertaining to the distributor (for performance data see *Quality delivered in the energy area*, Tables 22-26). The task of replying to **written complaints/enquiries** concerning the **public lighting service** lies directly with **Acea Illuminazione Pubblica**. In 2014, complaints received showed an increase (+15% over 2013) essentially due to the theft of power cables of the systems installed in the municipal area (over 60 km of cables were stolen during the year). While these events had an impact on the extent of complaints filed, they did not affect response performance, as both the number of complaints processed out of the total number of complaints received as well as the number of replies provided within 30 days increased. In detail, in 2014 a total of **1,352 written complaints were received**, with the company replying to **1,332 complaints** at 31 December (i.e., **98.52%**

of the total amount), showing a 6.52% increase compared to the previous year; 93.50% of the replies (+3.50% over 2013) were provided within 30 days, while the remaining complaints would be dealt with in the first months of 2015. With regard to the water service, **Acea Ato 2** received an overall amount of **9,768 complaints/enquiries** from the different municipalities under management (Rome and provincial districts), showing a **7% decrease** over 2013. As at 31 December 2014, **8,698 complaints were dealt with** within an average time of 14 business days. The average time complaints were dealt with decreased compared to the 22 days in 2013 following, among other things, the **management process enhancements** (shorter lead time) implemented through a redefinition of the process flows - resulting in less steps being required - as well as training schemes designed for personnel assigned to the service. **Commercial complaints** received by **Acea Ato 5** during the year totalled **3,493**, with **3,393 being dealt with at 31 December (97% of total complaints)** within an average time of 13 business days.

The **invoice bill** sent to customers shows consumption and service costs and payment terms as well as **other useful information**. A billing guide intended for free market and enhanced protection market customers is

available on **Acea Energia** website. More specifically, in 2014 the **new colour bill** was also extended to the customers of the enhanced protection market. The bill was redesigned with respect to its **contents** (clearer and more transparent data) and **graphic layout** (important information for the customer is quicker and easier to find). Acea Energia also focused on the

**promotion of the e-bill service** to meet the **growing customers' demand to manage their utility service online**. At the end of 2014, an e-billing promotional campaign was launched for free market and enhanced protection customers alike by:

- enclosing to the bill a specific leaflet describing how to activate the service and the

related benefits (see picture);

- providing information material at the Headoffice counter, where hostesses equipped with tablets were able to illustrate the service and activate it immediately with the customer's consent.

## COMMUNICATION, EVENTS AND SOLIDARITY

### COMMUNICATION

The **External Relations and Communication Division** of the parent company **supervises the different forms of communication** and interaction with the stakeholders.

On the strength of an experience spanning over one hundred years and an **established and engaged presence across the territory**, Acea contributes to the **organisation** of cultural, sports and environment-related events, **supports solidarity initiatives** and participates in events and **conferences relating to core business operations**.

The Company also launches **advertising and awareness raising campaigns** designed for the citizenry, **handles relations with the press** and promotes external communication through **its websites** at [www.acea.it](http://www.acea.it) and [www.ambientandoci.it](http://www.ambientandoci.it).

**Acea's website** is managed by the **Web, Social and Content Unit** and is available in Italian and English. It is designed to **convey the Group's institutional and financial communications, updating and sharing contents** aimed at meeting the stakeholders' information needs. The site is divided into themed sections, complete with information on **corporate governance**, the **Code of Ethics, sustainability and quality and safety**. Moreover, users can view **economic and financial documents**, the **stock trends** on the Exchange, price-sensitive presentations and statements, in accordance with Consob recommendations for listed companies. In **December 2014**, the site was **restyled, with its homepage being redesigned and overall improvements being made**. These included the implementation of a "carousel"

**featuring a slide show of the most important news, with users being able to click on the title and read the full text and access the image gallery**.

The **homepage** contains an **area dedicated to news**, regular updates on corporate activities and more general news on energy, water and environment. The Events area provides extensive insight **into the main events promoted by the Group companies**. This main page also provides access to "contacts" and **Energy, Water and Environment macroareas** (the latter starting from December 2014), whose access banners were redesigned using a new and more consistent graphic layout. This section contains **information on companies engaging** in the energy and water business areas and includes links to the websites of some companies. In this connection, it should be stressed that in addition to providing customers with useful information, the **websites of companies that run services** feature "**online counters**" where most commercial operations can be completed (for further information, see *Customer Care*). Finally, specific sections are dedicated to **Suppliers** and job opportunities.

Great importance is attached to **sustainability matters**; the news section is updated weekly with information on **events and articles** on topics such as smart grids, renewable sources, the energy system, climate changes, protection of nature and so forth. Consistent with this focus, firm A.R.I.A. (Acea Risorse e Impianti per l'Ambiente) uses the website's Energy area to provide **real time emissions** of the RDF propelled Waste-to-Energy plant of San Vittore del Lazio and, **since 2014, Terni-based plant**. Likewise, starting from 2013, water companies

allow the **main water quality standards** to be viewed online.

During the year, right after the publication of the *Sustainability Report* of the Group, the **contents of the website's section on Sustainability** were updated in Italian and English, with the section being further enhanced through "sustainable news" updated on a regular basis.

The **website's section on communication** activities showcases the main initiatives in which the company engages, the daily **press review**, the corporate magazine archive, **advertising campaigns**, a "**top news**" section and an **audio/video** section.

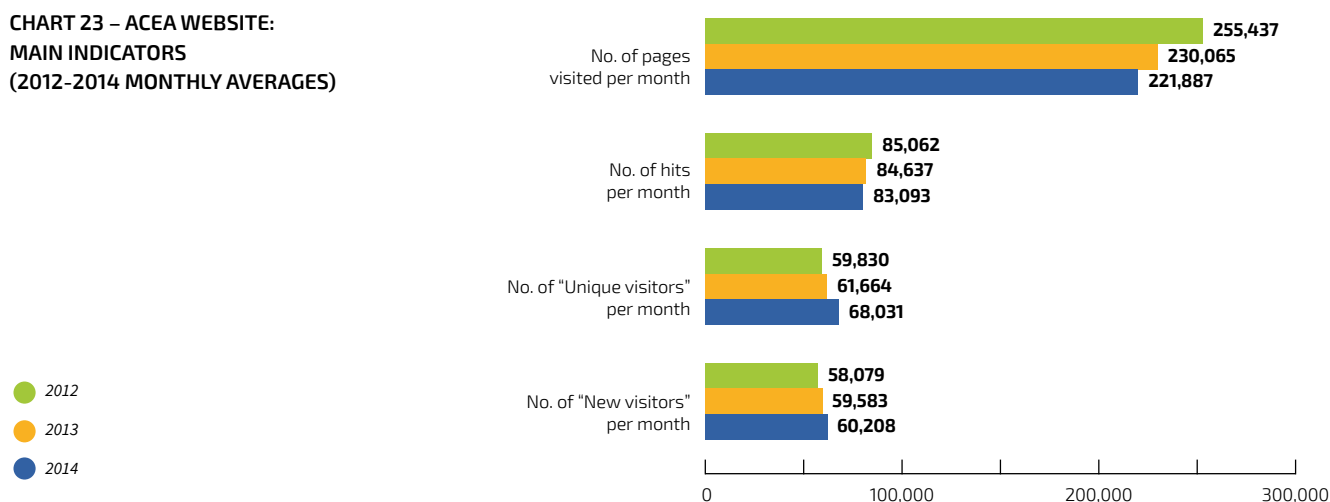
Finally, in 2014, as in previous years, the websites hosting the **surfable** and interactive versions of the Group's *Consolidated Financial Statements* and *Sustainability Report* (pertaining to FY 2013) were designed in English and Italian.

In 2014, the **corporate website** scored **997,110 hits overall** (of which more than 72% accounting for "new visitors"), showing a pattern in line with 2013 (1,015,647 hits), with a **monthly average of 83,093 hits**.

The most visited pages, apart from the **home page** (24.28%), included the **energy section** (4.89%), the **water section** (4.43%), the page containing **toll-free numbers and business hours of energy counters** (4.16%), **Acea SpA section** (4.14%), **communication** (2.8%) and **suppliers' area** (2.65%).

In 2014, all the **websites of the companies' running the different services** achieved a considerable increase in hits (see *Customer Care*).

**CHART 23 – ACEA WEBSITE:  
MAIN INDICATORS  
(2012-2014 MONTHLY AVERAGES)**



Besides dealing with the development and management of the corporate website and **coordinating the Group web & social identity**, consistent with the strategy guidelines issued by the Top Management, the **Web Social and Content Unit** established in 2014 as part of the External Relations and Communication Division is also responsible for developing and managing **Acea communications on the main social networks**, such task being introduced in the year under review.

The **Press Office** within the External Relations and Communication Division handles relations with the press. It completes **daily press reviews of the main national newspapers** and a few local papers, sharing them with colleagues on the corporate **intranet**. **External users** are also provided with **up-to-date and timely information**: a **selection of the main press review** is available on Acea's website under "Press Review" in the Communications section. Where possible, the website also contains radio and television reports on the Company. The Unit monitors press agencies on a daily basis, highlighting topics of interest and providing an end-of-the-day overview on the national and international main events.

**Any report covered by the newspapers** in respect of the different services run by the Group is **timely dealt with by the Press Office**. This activity is carried out in close cooperation with the relevant operating companies and in conjunction with the editorial staff of the newspapers willing to publish the Company's replies. Other reports are submitted by email, fax and direct phone calls and are likewise promptly dealt with. Great importance was again attached in 2014 to the electricity and gas sale service, with the Press Office arranging for Acea Energia representatives to participate in national television and radio programmes to address problems concerning invoices. The Press Office also helped underline special endeavours undertaken during the year, such as being the only European utility participating in the "Panoptesec" project on the level of security against cyber threats, and the

agreement signed between Acea and Eataly to raise awareness among citizens and households on the value of water resources. A **press conference was also staged to present the project known as "Case dell'acqua" (Water Houses)**, consisting of free of charge dispensers supplying cool natural and sparkling water to be installed in Rome and provincial districts over the next few years. The project is expected to yield savings to the extent of 1,800 tons of plastic bottles, i.e. 5,000 tons less of carbon dioxide released into air (also see *Water Area Quality*).

**Service press releases continued to provide timely disclosures of Acea's technical operations aimed at improving both water and energy service delivery** in the different areas of the capital as well as across areas in its jurisdiction.

**The Press Office disclosed the most important corporate events of the year and, in conjunction with the Investors Relations Divisions, handled economic and financial communications** following general meetings and meetings of Boards of Directors or on the occasion of financial disclosures.

Information sheets either circulated by the media or posted on the corporate website also highlight specific activities of the Group and disclose the main conferences and cultural, sports, social, environmental events in which Acea participates as a sponsor by fitting exhibition spaces or supporting its own speakers.

More specifically, **in 2014 wide media coverage was extended to social events**, including the "Social Football Project", whereby some Rome suburbs were reclaimed with the involvement of the citizens, and other initiatives undertaken in suburban districts. Indeed, efforts were made by Acea in these districts to **further strengthen its bond with the citizens and the territory** by increasing the level of engagement.

The **subject of lighting** as outlined in different projects **was one of the central ideas of communication in 2014**, the purpose being to reduce the gap between central and suburban areas and place emphasis on cultural diversity, overcoming biases and stereotypes. For example,

the project called **Luce. Diversità è energia** (Light. Diversity means energy) was carried out throughout the Christmas season both in the city centre and suburban areas, starting from the **lighting system deployed in via del Corso** dedicated to the Expo 2015 exhibition and the **temporary lighting in piazza Navona**, featuring an artistic animation of Bernini's Fountain of the Four Rivers, followed by **digital projections of street artists in Rome's outskirts in the 5<sup>th</sup> Municipality District**, involving **three schools in Tor Sapienza, Torpignattara and Pigneto**. The project ended on Epiphany at Piazza del Popolo, where digital projections of the performances held by street artists in the outskirts were shown again right in the heart of the city (also see relevant box). Lighting initiatives, with **special emphasis on LED lighting**, also included the launch of Rome Public Lighting System Switchover Plan, with **a first batch of more than 900 luminaires replaced starting right from suburban areas**. Finally, 2014 ended with the **new permanent lighting of St. Peter's Basilica and Santa Maria Maggiore Basilica**, implemented entirely with LED technology and offered by the Company to the city (also see *Quality in the Public Lighting Area*). The Press Office also highlighted a number of events that have been running for a few years thanks to the Company's support, including sports events such as the School Volleyball Tournament - Acea Trophy and the Marathon of Rome, as well as cultural projects connected to the "Estate Romana" project or held in conjunction with art exhibitions or other events (also see *Events and Solidarity*). Finally, still on the **subject of overcoming diversity**, great emphasis was placed on the **Mai più** (Never again) event staged by the Company at Macro di Testaccio on the eve of the International Day for the Elimination of Violence Against Women held by the UN every year on 25 November. **The above event aimed to stress Acea's commitment towards any form of discrimination, inequality and abuse** (also see relevant box in *Human Resources*).

#### SIRONI'S LABOUR CHARTER RESTORED BY ACEA

Following a meticulous cleaning and consolidation process, the **monumental glass wall built by Mario Sironi in Palazzo Piacentini** (currently home to the Ministry for Economic Development) returned to its original splendour. The work was commissioned to the Maestro by former Minister Giuseppe Bottai to celebrate the labour reform act promulgated in 1927. With a **surface spanning almost 75 square metres**, it outlines the iconographies of labour, art and trade cycles.

The restoration process, which was completed **thanks to Acea support**, allowed **colours to be fully distinguishable again**, with the light reliefs afforded by white shades becoming once again noticeable, as was also the case for the magnificent blue and green shades of the coloured tesseras.

The restoration was **performed by an highly specialised Italian team** using the best technologies and most innovative material available for this type of work.

The restoration of the glass wall took place on the occasion of **1885-1961 Mario Sironi's exhibition**, which was held at the Vittoriano Complex in Rome between October 2014 and February 2015. The retrospective on Mario Sironi, again sponsored by Acea, also displayed the preliminary sketches of the **Charter of Labour** and set out to illustrate Sironi's entire artistic path as a painter, illustrator, graphic designer, architect, sculptor and decorator through his most representative works of art one hundred and thirty years after his birth.

## THE "LUCE. DIVERSITÀ È ENERGIA" (LIGHT. DIVERSITY MEANS ENERGY) PROJECT

After providing support for the lighting system along via del Corso designed for the countries participating in Expo 2015, in the year under review Acea, in conjunction with Roma Capitale, chose to celebrate Christmas by also lighting some suburban areas of Rome. Through innovative **digital animations** designed by major **Roman and international street artists**, the **façades of three schools were illuminated** in the neighbourhoods of Tor Sapienza (Istituto Comprensivo "Piazza De Cupis"), Torpignattara (Scuola primaria "Carlo Pisacane" - Istituto Comprensivo "Via Ferraironi") and Pigneto (Istituto Superiore Europa "Virginia Woolf").

The event took place in Rome from 19 December 2014 to 4 January 2015, with a closing day on 6 January at Piazza del Popolo.

By staging this event Acea meant to convey a **concrete message about its focus on the issue of city suburbs**, which on the one hand are often the scene of social unrest and a more widespread hardship and, on the other hand, are home to new forms of cultural aggregation, art and socialisation. For this very reason, during the Christmas season Acea relied on the support of **Urban Artists** who started out in these areas, realising works of art conveying universal messages such as integration, multiculturalism and attention to diversity. A major input came from the **involvement of schools**, viewing them as a place where the core values of open dialogue, integration and acceptance of diversity are taught. The three schools involved also received support from Acea through a donation to foster learning activities on the subject of social inclusion and integration.

In 2014, Acea took part once again in **Movi&Co** as project partner, asking three young directors to create a commercial capable of underscoring the **importance of waste-to-energy plants** for waste disposal, dispelling concerns about polluting emissions.

## MOVI&CO 2014: IN COMPETITION AT THE MILAN EXPO 2015 THE SPOT MADE FOR ACEA "DON'T YOU DO THE OSTRICH"

Movi&co is a contest for young directors aged between 18 and 35 in which Acea has been involved as a partner for several years. The videomakers participating in the contest are called upon to support the business concerns that are party to the initiative and to work on topics suggested by the company. During the past few editions, the event was strongly committed to raising awareness among its participants and partner businesses with respect to environment-related issues and Acea has invariably picked up the challenge with enthusiasm. This year's video was created using a technique that enabled Osvaldo Cavandoli's "La Linea" to rise to fame. An ostrich buries his head in the sand and then, much to its dismay, realises that it is full of rubbish. A superimposition urges not to act like the ostrich and consider waste as "something serious". Other phrases follow where the advantages of modern waste-to-energy plants are explained and concerns about polluting emissions are dispelled.

In 2014, the Web Social and Content Unit extended and continued its news update activities at [www.ambientandoci.it](http://www.ambientandoci.it), the **environmental portal dedicated to schools**. In addition to local, national and international news updates, **a weekly column named "Memolibri, Il libro della settimana" (Memobooks, The book of the week) was implemented, containing reviews of articles published on environmental sustainability matters.**

Finally, emphasis was also placed on the initiatives sponsored by Acea on topics such as the development of renewable energy sources, safeguarding of water resources and environmental sustainability, as well as the different events aimed at promoting young talents and sustainability in schools.

The initiatives that involved young people included the **21<sup>st</sup> edition of School Volley - Acea Trophy, which won the participation of as many as 149 male and female teams** representing 94 schools located in Rome and its provincial districts, and the **World Children's Championship**, the first sports event dedicated to very young volleyball players from Rome and Lazio, with about 2,500 children from primary and secondary schools. The event was sponsored by Roma Capitale and co-funded by Acea.

Finally, every year Acea allows diverse groups of visitors, from school children to industry operators, to **visit its plants**, relying on the goodwill and expertise of its own employees. **In 2014, 463 people** from Italy and abroad visited the plants.

## EVENTS AND SOLIDARITY

The **economic value allocated to the community** in 2014 stood at **3.4 million euros**<sup>70</sup> (5.1 million euros in 2013), of which about 3 million was used to sponsor cultural, social and sports events. Provisions for donations to social associations and non-profit organisations strongly decreased compared to the previous year, reaching 155,000 euros (740,000 euros in 2013).

**Acea provides its services through "technical sponsorships"**, such as the supply of water and electricity or public lighting servicing **on the occasion of cultural and sports events that attract large turnouts and liven up the city for the citizens' and visitors' enjoyment. "Technical sponsorships"** provided in **2014** for many events as part of the Estate Romana (Roman Summer) project as well as many social initiatives generated **an overall economic counter value of about 465,000 euros.**

In 2014, **Acea Group supported or sponsored many endeavours**, some of which have already been outlined in the previous paragraph. Events related to the environment and youth included some major happenings such as the **Energy Festival** and **Rome Docscient Festival**. With regard to **culture**, in 2014 Acea sponsored major exhibitions and conventions as well as many other events held during the "Estate Romana" (Roman Summer) project. The Company confirmed its commitment to **sport**, supporting youth events, the traditional Rome Marathons featuring large

international turnouts, as well as sponsorships for major national sports teams (see relevant boxes).

Every year the Company makes the **hall of its Headoffice** in Rome available to associations engaging in social endeavours, enabling them to stage **charity and fund raising initiatives**. In 2014, the following organisations were given hospitality:

- MITOCON Onlus for the sale of handcraft products for fund-raising purposes on 11/12/2014. This association supports research and experimentation as well as exchanges on possible therapies to fight mitochondrial diseases;
- ROMAIL Onlus for the sale of Easter Eggs on 2/04/2014 and the sale of poinsettias on 4/12/2014 for the purpose of raising funds to support the Association's activities. ROMAIL Onlus is the Italian association against leukaemia, lymphomas and myelomas which supports scientific research and home care. In the year under review, Acea supported the "Leonarda Vaccari" Institution in its social endeavours for the rehabilitation, training and social and occupational integration of disabled people, and *The Children for Peace Onlus*, the NGO operating in different parts of the world to provide support to minors facing hardships and their families. Acea also sponsored the "Partita Mundial - Italy vs. Brazil", with gate receipts being given entirely to charity. The Company provided many technical sponsorships on the occasions of events such as the lighting of the Coliseum as part of the **2014 Rose Ribbon**

<sup>70</sup> This item also included costs incurred for "trade shows and conventions" but did not include "technical" sponsorships.



Campaign, Romadicenso events staged at Piazza del Popolo during the International Day for the Elimination of Violence Against Women, *Race for the Cure* held at Circo Massimo and many others. Finally, as in previous years, Acea - in conjunction

with the Sant'Egidio Community - offered social meals to the homeless during Easter and Epiphany festivities at its own corporate recreational centre.

The following boxes show the **main events supported by the Acea Group in 2014** through sponsorships or donations. The events have been grouped based on their purpose, with company participation also being stated.

#### 2014: ACEA'S SUPPORT TO THE ENVIRONMENT AND YOUNG PEOPLE

"Gigawatt sponsor" of the 2014 edition of the **Energy Festival**, the main national event gathering representatives from science, academic, institutional and economic circles for the purpose of **developing a debate on energy matters** and promoting a new energy culture in the country. The event took place in Milan from 15 to 17 May 2014 (ALLEA Srl).

- Main partner of the event named **Fai la differenza, c'è la Re Boat Race** (Make the Difference, the Re Boat Race is On), the first regatta held in Italy using boats built entirely from used and recycled material. "Makeshift" teams are eligible for participation to compete in a contest where points are awarded for speed, boat strength, design "creativity and flair" (A.S.D. Sunrise 1) .
- Main sponsor of the **Rome Docscent Festival**, the international event of the scientific documentary held in Rome from 4 to 13 December 2014 in different locations (Orto Botanico, Casa del Cinema, Accademia dei Lincei, etc.). The event was intended for students of upper secondary schools as well as the public at large to promote the documentary as a preferred channel for popular science. The students of four higher school institutions were also involved in the production of scientific documentaries using innovative and technological languages (Bake Srl)
- Contribution to the E...state in famiglia 2014 (Summer with the family) initiative, setting up a summer cultural laboratory (events, games, sports and entertainment) for young people and their families. It was staged in Rome from 2 to 6 July at S. Pio XI Institute (Forum of Lazio Family Associations).
- Sponsor of **Movi&Co. 2014**, a contest pursuing a two-fold goal: (i) build a bridge between the creativity of young competitors aged between 18 and 35 and the labour market, and (ii) provide companies with the opportunity to entrust their image to the innovative flair of young videomakers who are tasked with producing commercials, videos or films. (Expo & Media Communication Srl)
- Sponsor of the 2014 edition of the **Concorso internazionale Centro/Periferia (City Centre/Suburb International Contest) for young artists promoted by Federculture, the main topic of which was the juxtaposition of the emerging realities of large centres and suburban realities, marginalisation and involvement. (Federculture).**
- Title sponsor of the 2014 edition of the **Torneo Volley Scuola- Trofeo Acea** (School Volleyball Tournament - Acea Trophy) restricted to **upper secondary schools in Rome and its provincial districts**. It was organised by Fipav Lazio with the participation of more than 150 boys' and girls' teams representing 94 schools (Fipav Lazio)
- Sponsor of the **Mondiale dei piccoli 2014** (World Championships for the Little Ones), the first sports happening dedicated to very young volleyball players from Rome and Lazio, involving about 2,500 children from primary and secondary schools (COL Roma)

#### 2014: ACEA'S SUPPORT TO CULTURE AND SPORT

- Main sponsor of **Capolavori del Musée d'Orsay** (Masterpieces of the Musée d'Orsay), the exhibition dedicated to great French artists held in Rome at the Vittoriano Complex between February and June 2014 (Comunicare Organizzando Srl)
- Sponsor of **Mario Sironi 1865-1961**, the important retrospective on the artist held in Rome at Vittoriano Complex from October 2014 to February 2015 (Comunicare Organizzando Srl)
- Main sponsor of the convention entitled **Utilities: il Piccolo non è più Principe?** (Utilities: The Little One Is No Longer Prince?) held in Rome on 14 October 2014 at the Nuova Aula dei Gruppi Parlamentari (New Hall of Parliamentary Groups) to address issues pertaining to local public services - energy, water, waste and infrastructure - as well as the growth challenge.
- Sustainer sponsor of the **Open House 2014** exhibition, an international architecture, art and design event held in Rome from 10 to 11 May 2014, during which artist studios, historical buildings and museums were exceptionally open, with free of charge access being granted (Associazione Open City Roma)
- Sponsor of the XII edition of the **Luglio suona bene** (July Sounds Good) Festival, featuring a number of events staged in Rome from June to August 2014 at the Auditorium Parco della Musica (Music Park Auditorium) (Fondazione cinema per Roma)
- Sponsor of the **Festival Internazionale del Film di Roma** (Rome International Film Festival) held in Rome at the Auditorium Parco della Musica (Music Park Auditorium) from 16 to 25 October 2014 (Fondazione musica per Roma)
- Contribution to the staging of the unscheduled concert entitled Festa di S. Cecilia performed by Sir Antonio Pappano on 22 November 2014 at the Accademia Nazionale di S. Cecilia in Rome ( **Fondazione - Accademia Nazionale di S. Cecilia**)
- Main sponsor of **Roma si mette in luce 2014** (Rome in the limelight 2014), an happening that involved the entire city, featuring special lighting installations and events, including the **Luce. Diversità è Energia** (Light. Diversity means energy) project, held in the city centre and suburbs from December 2014 to January 2015 (Laura Rossi International Srl)
- Main sponsor of the **Gay Village 2014**, an event held at the Parco del Ninfeo dell'EUR in Rome from June to September, staging initiatives of various kind: cinema, theatre, sport, concerts (Gavi E20 Srl)
- Title sponsor of the 2014 edition of the traditional sports event known as **Maratona della città di Roma - Trofeo Acea**, (Rome Marathon - Acea Trophy), the most attended Italian sports event held on 23 March starting from via dei Fori Imperiali (Atielle Roma Srl), and major sponsor of **Maratonina Roma-Ostia** (Rome-Ostia Marathon) held on 2 March 2014 (Roma Ostia Srl)
- Title sponsor of Acea Roma basketball team for the Serie A 2014-2015 season (Virtus Pallacanestro Srl)
- "Official supplier" sponsor of **A.S. Roma and S.S. Lazio for the Serie A championship**, 2014-2015 season (DAO Management)
- Official sponsor for the celebrations on the occasion of the **100 years since the establishment of the Italian National Olympic Committee** (CONI) held in Rome from 8 to 10 June 2014 (CONI Servizi SpA)
- Top sponsor of the **Granfondo campagnolo 2014 di Roma** (Cross-country race), a cycling event for professionals and amateurs. The competition took place on 13 October 2014 and attracted about 5,000 cyclists, many of whom from abroad. It was staged on two different technical routes (53 km and 105 km) starting from the city centre all the way up to the Castelli Romani. On that occasion, a Village was set up at Circo Massimo, where 35,000 visitors turned out (Bicitaly Srl)
- Business partner of Mille miglia 2014, the car vintage race held along the Brescia-Rome-Brescia route that crossed the capital on 16 May 2014 (1.000miglia Srl)
- Sponsor of the 37<sup>th</sup> edition of the **maratonina della cooperazione** (Marathon for co-operation) held in Rome on 27 April 2014 (Polisportiva Colli Aniene)

## 2014: ACEA'S SUPPORT TO SOLIDARITY ENDEAVOURS

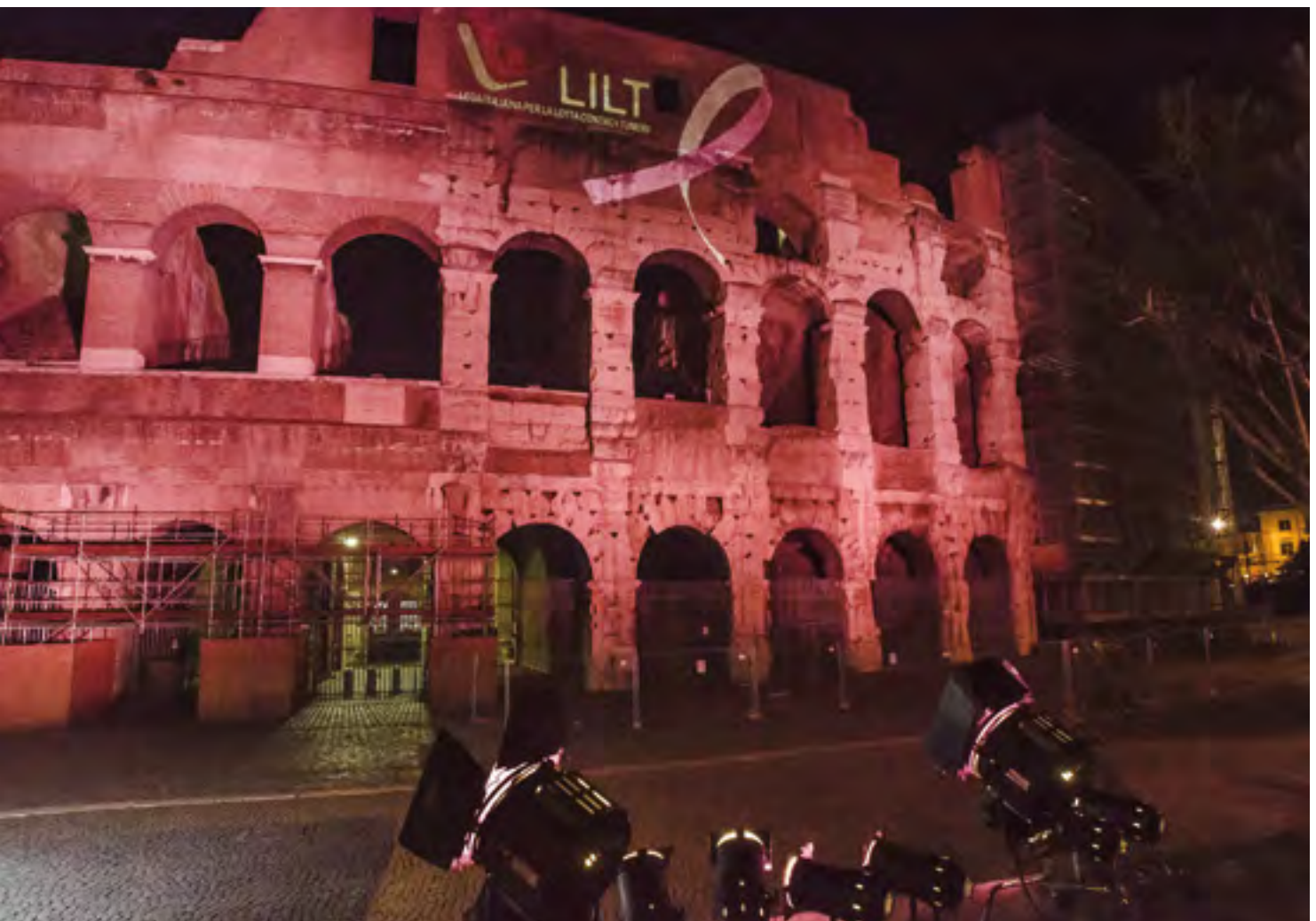
- Support to the Leonarda Vaccari Institute in its social endeavours for the rehabilitation, training and social and occupational integration of disabled people ("Leonarda Vaccari" Institute)
- Support to **The Children for Peace Onlus** endeavours. This NGO operates in different parts of the world, including Ethiopia, Mali, Uganda, Darfur, Syria, Palestine, Israel and Colombia, helping minors suffering hardships and their families (The Children for Peace Onlus)
- Sponsor of the **Partita Mundial – Italy vs. Brazil**, the charity football match held at the Olympic Stadium in Rome on 20 May 2014
- Technical sponsorship for the **Race for the cure** project, a three-day sport and health event staged from 15 to 17 May 2014 at Circo Massimo in Rome. About 70,000 people attended the 5-km celebrated race and solidarity walk organised by Susan G. Komen Italia to support the fight against breast cancer and promote women's health.
- Technical sponsorship was granted by having the Lazio Regional Authority Building illuminated with pink lights throughout the month of October 2014. This was the hallmark of the "**Ottobre rosa**" (Pink October) initiative aimed at encouraging women participate in breast cancer prevention schemes (Lazio Regional Authority)
- Technical sponsorship for the **Romadiceno** (Rome says no) initiatives held at Piazza del Popolo on 24 and 25 November 2014 on the occasion of the UN International Day for the Elimination of Violence Against Women (Roma Capitale)
- Technical sponsorship was granted by having the Coliseum illuminated with pink lights as part of the **Nastro rosa 2014** (Pink ribbon) initiatives (LILT – Lega Italiana per la lotta contro i tumori)

In 2014, Acea supported the organisation of events and initiatives also **outside Rome**, in areas covered by some of the operating companies of the Group. A few examples include: Sabaudia, where Acea supported the third edition of the **Premio Pavoncella alla creatività femminile** (Pavoncella award for female creativity); Cassino, through the sponsorship of the event named **Pacefix 70 – dalla rivalità all'antagonismo**

(Pacefix 70 - from rivalry to antagonism); Terni, where the Company acted as golden sponsor of the IV edition of the **Maratona di San Valentino** (St. Valentine's Marathon); Bracciano, where it sponsored the **Vogalonga dei cigni 2014** event; Trevignano, providing support to the **FilmFest 2014** event. Acea also sponsored the 10<sup>th</sup> edition of the **Cento Città in Musica** (100 cities playing music), featuring cultural events and shows

staged from 26 to 14 August 2014 across Rome provincial district, the events of **Umbria Jazz Festival 2014** held in Perugia from 11 to 20 July, as well as the **Festival Umbria Jazz Winter** staged at Orvieto from 27 December 2014 to 1 January 2015. Acea was also main sponsor of 2014/2015 **Florence New Year's Eve**, which involved many squares of the city.

Rome, Colosseum lit up for Pink October, a national breast cancer prevention campaign



# SUPPLIERS

We are committed to enhancing quality, environmental protection and safety standards throughout our supply chain.

## PURCHASING POLICIES

In 2014, a project for a **thorough review of the Group's tender management system** was designed and will become operational in 2015-2016 following the implementation, among other things, of new information systems. To this end, as early as April 2014 an ad-hoc meeting was held with federal unions and electricity and water trade unions, during which information was provided in respect of the investment plans and their impact on contract work. In addition, a meeting was held in July with federal unions of the construction industry, during which the Chief Executive Officer of Acea SpA illustrated the new tender management project. The goal is to bring about conditions enabling both the contracting authority and the contractor **to work on the same information platforms** through appropriate and common devices that can track and record operation timeframes and methods with certainty. The tendering system model will also be reviewed according to some main guidelines:

- while the current financial extent of tenders is expected to be kept, the objective is to reduce their fragmentation by defining macro tenders that have a greater unit value;
- extending the duration of single tenders;
- awarding multiple operations, even in respect of more networks/services.

The unions agreed with the adoption of such a system and asked to be involved in the stages leading up to implementation so as to fully understand its impact. In November 2014, Acea held a meeting open to all industry companies and relevant trade associations to illustrate the characteristics of the new network maintenance management model and the main objectives and contents of future tenders related thereto. Following this meeting, the Company drafted a document illustrating the new model and posted it on its corporate website at [www.acea.it](http://www.acea.it).

## CONSOLIDATED EXTERNAL COSTS

In 2014, the Group **consolidated external costs** totalled **2.11 billion euros** approximately, with all items showing a decrease compared to 2.40 billion euros in 2013 (-12%). The main costs, amounting to 1.75 billion euros approximately (2.04 billion euros in 2013), pertained to the purchasing of **energy, gas and fuels**, down by more than 295 billion euros (-14.5% over 2013), followed by the costs incurred for **services**, totalling 234.8 million euros.

**Operating costs** reduced significantly from 41.4 million euros to **33.9 billion euros** (-18%).

The rest of this section shows the **procurement of goods, services and works** that the **Purchasing and Logistics** Corporate Division manages for several companies of the Group. In 2014, procurement totalled **533 million euros approximately**.

it, Suppliers section. During the following week, adequate time was allowed for the participants to submit their observations and recommendations, which were carefully reviewed and partly reflected in the final drafting of tender documents.

The task of: "**ensuring the definition of policies and goals and a centralised management of the procurement of goods, services and work for the Group**" is entrusted with the **Purchasing and Logistics Division** of Acea SpA. Its main goals include (i) **rationalising the supply process and increasing its efficiency** by enhancing the buyers' technical expertise (an approach based on the management of product categories), (ii) promoting a close cooperation with the Group Companies/Divisions requesting the supplies ("internal clients") and (iii) ensuring transparent dealings with suppliers.

The **management of suppliers' qualification systems** is entrusted to the **Safety and Protection Division**, thereby ensuring total independence between the two activities.

The supervision of the supply process is ensured by the **Planning, Control and Purchasing Marketing Unit**, whose duties include (i) recommending **purchasing strategies** that are instrumental in achieving group-wide goals, (ii) performing a **review of the needs of the Companies/Divisions and preparing the Group's procurement plan**, (iii) monitoring changes in the suppliers' market, trends in prices and technological innovations.

The **Logistics Unit** is responsible for the management of the **Group's central warehouse** as well as **district warehouses** of the main operating companies. In 2014, the organisational consolidation process of the central warehouse was completed. As a result, physical logistic operations previously entrusted with an external provider were insourced as of

last year. The implementation of the new system allowed operating costs to be further cut back compared to 2013. During the year, in view of the **forthcoming implementation of new information tools for the traceability of the materials** along the supply chain and the **management of operations across the territory, the scope of the logistic flow management model was extended**, such model currently adopted by the companies operating in the network area and the main companies operating in the water area. Finally, several **quality, safety and asset protection refurbishing and upgrading** projects were launched and completed at the Group's central warehouse, including a complete renovation of horizontal and vertical signalling, the installation of an innovative intrusion detection system, additional **specialist safety training delivered to appropriate personnel** as well as the modernisation of several working equipment to ensure, among other things, compliance with new HS&E regulations.

## DEALINGS WITH SUPPLIERS AND PROCUREMENT MANAGEMENT

The Code of Ethics of the Group<sup>71</sup> covers dealings between Acea e its suppliers under **Article 16, paragraphs 1-7**, requiring the contracting authority and contractors to behave according to the principles of **fairness, transparency and fair competition**. Moreover, the *Code of Ethics* must be **signed and acknowledged** as part of the **due diligence requirements to be met in order to be eligible for participation in tendering proceedings for the award of works, goods and services**; in the event of violation of the principles set forth in the *Code*, offenders shall, subject to prior investigation, be **banned from bidding procedures or forfeit any contract awarded** (Article 16, paragraphs 6 and 7).

71 The Code of Ethics of the Group (2012 edition) is available online on the corporate website (Rules and Values section).

Under Article 16, paragraph 2 of the *Code of Ethics of Acea Group*:

“As part of its procurement activities, Acea undertakes to promote compliance with the protection and safety conditions of its employees, a focus on the quality of goods and services, respect for the environment and the pursuit of energy savings, in accordance with the principles as laid down in this Code of Ethics and by law. In supply contracts entered with at-risk countries, as defined by recognised organisations, terms and conditions have been introduced whereby: the supplier is required to issue a statement certifying compliance with specific social obligations (e.g. provisions that guarantee the observance of employees’ fundamental rights, the principles of equal treatment and non-discrimination, protection against child labour); audits may be performed at the production units or operating sites of the supplying firm in order to verify the fulfilment of these requirements.”

The procurement management process is conducted in **full compliance with the relevant regulatory framework**<sup>72</sup>, resorting to calls for tender as the main way of identifying suppliers, basing award procedures on maximum transparency standards and ensuring a centralised management of tenders.

**All tenders for the award of works** and a considerable number of tenders for the purchase of goods and services require **UNI EN ISO 9001 certification** as a **prerequisite for participation**, while **UNI EN ISO 14001 certification** is needed for certain product categories (such as waste management).

Furthermore, for some of the tenders awarded according to the most economically advantageous bid criterion, the score is also impacted by the **SA8000 certification**, the international standard that certifies business management aspects related to corporate social responsibility.

Operators who are interested in participating in tenders **can access directly and free of charge the portal hosting the qualification systems** and the portal hosting **online procurement** – in the “Suppliers” section of the company website at [www.acea.it](http://www.acea.it), where the required forms and information are available. The web portal enabling tenders to be managed online – the **Pleiade** platform – is based on the same operational procedure as traditional tenders: it checks the adequacy of the supporting documents, acknowledges eligibility, discloses the bids and displays the ranking. As to tenders for works, goods and services that fall within **special water and energy business areas**, open, restricted or negotiated procedures among companies registered with qualification systems will apply, as laid down by law provisions.<sup>73</sup> With regard to tenders for special business areas **involving amounts below the Community threshold**, which is set every two years according to EC Regulations, Acea adopts **Internal Regulations** in accordance with the principles set forth in the EC Treaty for

the protection of competition. With regard to awards pertaining to ordinary business areas, **open, restricted or negotiated procedures** are discharged pursuant to applicable law provisions<sup>74</sup>. Moreover, even though the selection procedures adopted for tenders that do not fall under the *Code of Tenders* (e.g. private tenders or tenders that do not fall under community directives or legislation) are not governed by Legislative Decree No. 163/2006, they comply at any rate with the **principles of free competition, equal treatment, non discrimination, transparency and proportionality**.

During the course of 2014, the companies of the Acea Group herein being referred to provided **employment to some 1,800 companies across Italy**, executing more than 3,500 contracts.

As part of the information system technological development process started recently for the purpose of consolidating the new single model for the management of the main corporate processes, in 2014 most of the Group companies were migrated to the new system (SAP ARES). At the same time, the Single Purchasing Portal for the management of contracts shared by all of the Group companies (stationery, travels and business trips, printers, cartridges and other consumables) is still operating, thereby ensuring cost savings and streamlining purchasing processes while maximising turnaround time. The Purchasing Division is also designing a Data Warehouse (DWH) for the management of purchase-related reporting tools, ensuring a constant control of the corporate processes relating to the supply chain. Finally, the idea of having the Company relies on a new fully SAP-integrated portal (SAP-SRM, Supplier Relationship Management) for the execution of tenders is also being considered.

## GREEN PROCUREMENT

With a view to **improving company performance from a Green Procurement perspective**, Acea arranged - where possible - for **tender specifications** to include the **regulatory references to Criteri Ambientali Minimi (CAM) (Minimum Environmental Criteria) as binding standards, such criteria being adopted pursuant to Decree of the Ministry for Environment and Protection of Land and Sea, consistent with the provisions under the Action plan for the environmental sustainability of consumption in the Public Administration sector** (i.e. the National Action Plan on Green Public Procurement (**NAP GPP**)<sup>75</sup>.

More specifically, in 2014 Acea continued to rely on the Consip “green agreement” for the purchase of **multifunction printers complying with the relevant CAMs**. The Minimum Environmental Criteria (CAM) also served as a benchmark **in tenders for the replacement of luminaires of street, artistic, monumental and green area lighting systems** in Rome (in the technical specifications explicit reference was made to Decree of Ministry for Environment dated 22 February 2011), consistent with operations completed in 2013, when the aforesaid criteria were also introduced for some **building management services**.

With respect to the contracts awarded for maintenance work on water networks of ATOs operating across Lazio (i.e., Acea Ato 2 and Acea Ato 5) to be executed during 2015 based on the **most economically advantageous bid criterion**, a number of aspects pertaining to **building site safety and environmental performances** as well as **SA8000 certification** were **introduced as qualifying criteria**. Some **Minimum Environmental Criteria** (pursuant to Ministerial Decree dated 23 December 2013 – MATTM) were likewise introduced for the contract to be awarded in 2015 for the **maintenance of green areas**.

The contract for the supply of **stationery** is still valid. Stationery may be purchased through

<sup>72</sup> Legislative Decree No. 163 dated 12 April 2006 - Code of public contracts involving works, services and goods implementing Community Directives 2004/17/EC and 2004/18/EC.

<sup>73</sup> Part III of the Tender Code - Legislative Decree No. 163/2006.

<sup>74</sup> Part II of the Tender Code - Legislative Decree No. 163/2006.

<sup>75</sup> The GPP NAP was recommended by the European Commission in 2003 and adopted by Italy with Law No. 296/2006, Article 1 paragraph 1126 and Ministerial Decree dated 11 April 2008 (MATTM). The Ministry for Environment defines the “Minimum Environmental Criteria” (CAM), which act as a national benchmark for Green Public Procurement; they may be used by the contracting authorities to enable the Action Plan on the Green Public Procurement to maximise economic and environmental benefits. The “GPP” (Green Public Procurement) is defined by the European Commission as “(...) the approach by which Public Authorities integrate environmental criteria into all stages of their procurement process, thus encouraging the spread of environmental technologies and the development of environmentally sound products, by seeking and choosing outcomes and solutions that have the least possible impact on the environment throughout their whole life-period.”

the Single Purchasing Portal, where a catalogue containing many ecological products is available (mainly **paper and cardboard articles certified by the FSC** (Forest Stewardship Council). Following the experimental phase started in 2013, it was decided to arrange for the new SAP-ARES management system to keep the **possibility for the applicant Division/Company to state**, at the time the request is filled out, the **"sustainable" nature of the products and**

**services to be purchased.** This option is expected to be fully operational by 2016. Finally, an **internal training scheme on Green Procurement** was developed. The scheme will be launched in 2015 and **aims to inform the main stakeholders involved in company purchasing processes about the criteria to be adopted to identify green products for the purpose of encouraging the purchase of such products.** To this end, green procurement

guidelines have already been developed and will be posted on the intranet. During the year, Acea SpA officially **joined the non-profit organisation called "Acquisti & Sostenibilità" (Purchases and Sustainability)**, whose goal is to create social, ethical, economic and environmental value by supporting and guiding private and public companies in the development of their sustainability endeavours along the supply chain.

## PROCUREMENT OF GOODS, SERVICES AND WORKS

### REPORT BOUNDARY

The information contained in the paragraph pertains to the following Group companies: Acea SpA, Acea Distribuzione, Acea Reti e Servizi Energetici, Ecogena, Acea Illuminazione Pubblica, Acea Ato 2, LaboratoRI, Acea Ato 5, Acea Gori Servizi, Sarnese Vesuviano, Crea, Crea Gestioni, Acea8cento, A.R.I.A., SAO, Aquaser, Kyklos, Solemme, I.S.A., Samace, Acea Energia and Acea Produzione.

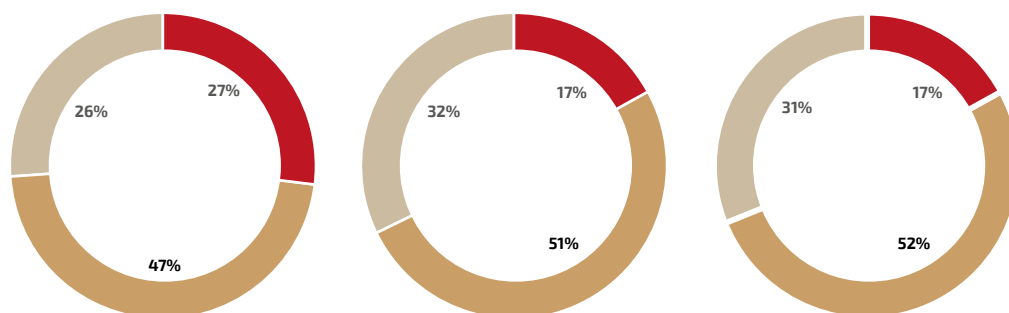
**Note:** Companies whose tenders were managed for the first time in 2014 are shown in boldface.

Tenders for the supply of **goods, services and works** were managed at a centralised level for the companies listed in the *Report Boundary*. The **economic value** of the contracts awarded during the year totalled **533 million euros<sup>76</sup> approximately, in line with 2013** (539 million euros). It should be stressed, however, that in

2014 the Report Boundary was extended to new companies in the Environment business area. This slight drop over 2013 (-1%) **was due to lower expenditure for works** (-4.6% approximately) and a **drop in the purchase of goods** (-3% approximately), while **services** purchased showed a slight increase (1.8% approximately).

With regard to **the impact on total purchases** from the aforesaid three items, changes over 2013 followed the same (sign and extent) pattern as the deltas of absolute values, with **services reaching 52%** of the weight, offset by **works**, which dropped to **31%** (see Chart 24).

**CHART 24 – CONTRACT VALUE AND INCIDENCE OF THE DIFFERENT ITEMS ON TOTAL VALUE (2012-2014)**



2012

2013

2014

€/m

€/m

€/m

● Goods	141	92	89
● Services	241	274	279
● Works	136	173	165
<b>Total</b>	<b>518</b>	<b>539</b>	<b>533</b>

**Note:** The figures shown in the table are rounded off to the nearest unit

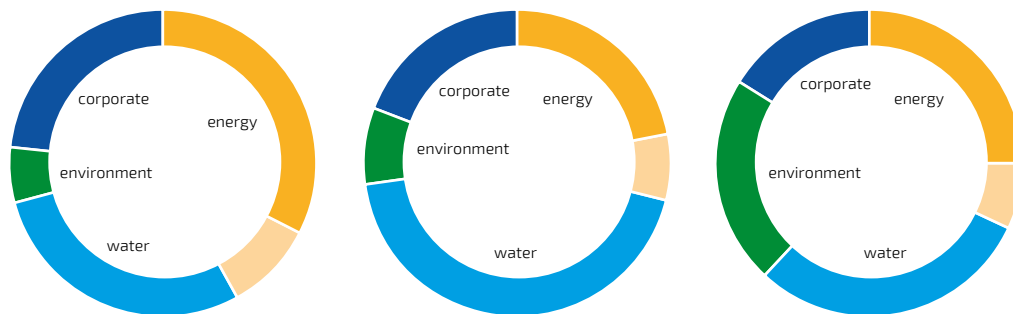
If the contract value is divided into four business macroareas, i.e. **energy** (networks and market), **water, environment** (waste-to-energy and environmental services) and **corporate** and if the **trend of the percentage incidence on total** (see Chart 25) is considered, a significant increase from 2013 to 2014 will become evident

in the percentage weight of the environment area (from 7.8% to 22.2%, clearly as a result of the five new companies being included in the purchasing management boundary), followed by a smaller increase in the energy area, which must be ascribed to greater costs incurred for the purchase of goods and services in the "network"

business. By contrast, the delta of the **water area showed a sharp decrease** in total orders (with absolute figures dropping from 239 million euros to 158 million euros) equally distributed across goods and services and works. Corporate figures also showed a slight decrease, with a drop in costs incurred for goods and services.

<sup>76</sup> The amount refers to tenders awarded during the year, without any distinction between period and investments, annual and multiannual contracts. The purchasing of commodities was virtually not considered at all.

**CHART 25 – PURCHASE EXPENDITURE BREAKDOWN BY MACROAREA (GOODS, SERVICES, WORKS) (2012-2014)**



	2012 (%)	2013 (%)	2014 (%)
<b>Energy area (*)</b>	<b>42.0</b>	<b>29.2</b>	<b>31.7</b>
of which: - Energy networks	32.3	22.4	24.8
- Energy generation and sale	9.7	6.8	6.9
<b>Water area (**)</b>	<b>29.6</b>	<b>44.3</b>	<b>29.7</b>
<b>Environment area (***)</b>	<b>5.8</b>	<b>7.8</b>	<b>22.2</b>
<b>Corporate area (****)</b>	<b>22.6</b>	<b>18.7</b>	<b>16.4</b>

(\*) The energy network business of the energy area includes companies engaging in distribution, public lighting and value added energy services: Acea Distribuzione, Acea Reti e Servizi Energetici, Ecogena and Acea Illuminazione Pubblica. The energy generation and sale business includes all the companies of the energy area engaging in the production and sale of energy to the captive and free markets (Acea Energia, Acea Produzione), the purchases of which are partially managed by the Purchasing and Logistics Division of Acea SpA.

(\*\*) The water area includes the following companies: Acea Ato 2, Acea Ato 5, LaboratorioR; Acea Gori Servizi, Sarnese Vesuviano, Crea and Crea Gestioni.

(\*\*\*) The environment area includes the following companies: A.R.I.A., SAO, Kyklos, Solemme, Samace, ISA and Aquaser.

(\*\*\*\*) The corporate area, as part of group-wide services, includes Acea SpA and Acea8cento.

With regard to the purchase of goods and services, in 2014 the Purchasing and Logistics Division dispatched the requests made by the Group companies/units, processing 3,352 purchase orders, of which about 95% involved contract values below the Community threshold.<sup>77</sup> The first ten suppliers of goods and services used up together roughly 38% of the total value of the goods and services purchased (about 140 million euros out of 368 million euros). The Division also dispatched procedures for 211 Purchase Orders relating to work contracts awarded. The first ten suppliers of works used up almost 50% of the total value of the work contracts awarded (roughly 82 million euros out of 165 million euros).

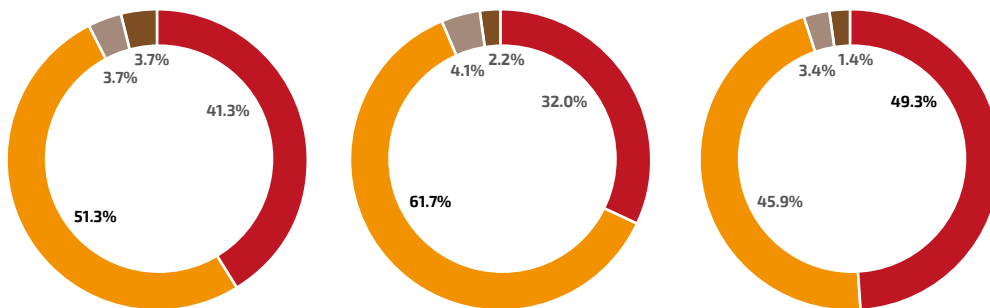
Charts 26 and 27 show the geographical distribution of the amounts used to purchase goods and services and works in the last three years, respectively. As compared to the previous year, the percentage of the value of goods and services purchased in northern Italy in 2014 increased (49.3% compared to 32%), while percentages relating to other geographical areas decreased accordingly, especially in central Italy, where the amount of contracts awarded remained however significant (169 million euros, of which about 136 million euros in Lazio). This was reflected in a decrease (out of a total of 1,727 suppliers of goods and services) in the number of suppliers based in the central part of the country, dropping from

1,314 to 1,125. The trend relating to the geographical distribution of amounts pertaining to work contracts awarded also showed a significant drop in contract value in central Italy between 2013 and 2014 (from 82.6% to 58.4%), followed by a similarly considerable yet upward adjustment of works awarded to companies in the north (from 8.7% to 35%), as a result of EPC contracts<sup>78</sup> executed during the year. At the same time, work contracts awarded dropped from 137 million euros to about 93 million euros, equal to about 56% of the overall value of work contracts awarded, with 74 contractors out of a total of 108.

<sup>77</sup> Amounting to 414,000 euros in 2014 for the purchases of all companies, except for those relating to SAO (whose threshold value stands at 207,000 euros)

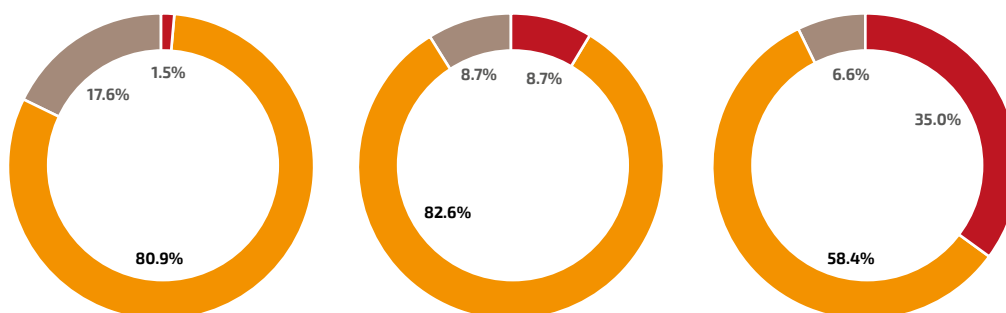
<sup>78</sup> Under this type of contract, usually identified with the EPC acronym (Engineering, Procurement, Construction), all the project phases are awarded to a General Contractor who is fully responsible for designing, building and delivering the plant to the Client. Typically, it is used for sizeable and complex work, such as the construction or revamping of power plants, treatment stations, waste-to-energy plants, etc.). The General Contractor may, as appropriate, undertake a project entirely with its own personnel, subcontract its construction partly or wholly or even subcontract all three execution phases and deal with co-ordination only.

**CHART 26 – GEOGRAPHIC DISTRIBUTION OF THE AMOUNTS USED FOR THE PURCHASE OF GOODS AND SERVICES IN ITALY AND ABROAD (2012-2014)**



GEOGRAPHICAL AREA	2012	2013	2014
	Amounts (€/m)	Amounts (€/m)	Amounts (€/m)
Northern Italy	158	117	181
Central Italy	196	226	169
Southern Italy and Islands	14	15	12
Abroad	14	8	5
<b>Total</b>	<b>382</b>	<b>366</b>	<b>368</b>

**CHART 27 – GEOGRAPHIC DISTRIBUTION OF THE AMOUNTS OF WORKS AWARDED IN ITALY (2012-2014)**



GEOGRAPHICAL AREA	2012	2013	2014
	Amounts (€/m)	Amounts (€/m)	Amounts (€/m)
Northern Italy	2	15	58
Central Italy	110	143	96
Southern Italy and Islands	24	15	11
<b>Total</b>	<b>136</b>	<b>173</b>	<b>165</b>

### SUPPLIERS' ASSESSMENT

Acea relies on **Qualification systems for suppliers of works, goods and services** that are updated on a regular basis. The **Safety and Protection Division** coordinates and manages the **Suppliers' Qualification and Rating process** of the Group **independently of and separately** from the Purchasing Division, who is responsible for managing award procedures during the best bidder selection. The purpose of such an organisational approach is to ensure **maximum transparency** in dealings with suppliers.

Consistent with the principles of **fair competition and equal treatment**, the Unit responsible for the Suppliers' Qualification and Rating establishes **Qualification systems** of European magnitude<sup>79</sup> and **Registers of suppliers** for below threshold tenders, **coordinating interfunctional groups for the**

**layout of qualification prerequisites** and drafting **Qualification Norms**. The Division is also responsible for leading the activities of the **Qualification Board** and informing the suppliers whether their application for inclusion in the Suppliers' Register has been **accepted, rejected or suspended**. Finally, the Division coordinates the activity of the interfunctional group for the **definition of the rating model**, and is responsible for managing and maintaining the IT rating system.

As at **31 December 2014**, Acea activated **Qualification Systems/Suppliers' Register for 308 groups of products** out of a total of 376, **104 of which through the publication of Qualifications Systems of European magnitude** and **204 for tenders below the Community threshold through the publication of appropriate Suppliers'**

**Register Regulations for contracts below Community threshold**. The percentage of active product groups is therefore 82% approximately. More specifically, Qualification Systems were created for most of the groups of goods falling under the category of **works**, as well as for **key supplies and services or services that are particularly crucial** because of their expenditure extent, repetitiveness over time or **in light of the significance carried by the good/service for safety and/or environmental protection purposes**. **Companies** who wish to qualify **must submit their application online to seek qualification for the group of goods they are interested in**, in compliance with the relevant Regulations, by accessing the **Vendor Management Portal** directly from Acea's corporate website ([www.acea.it](http://www.acea.it), Suppliers section).

<sup>79</sup> In accordance with Article 232 of Legislative Decree No. 163/2006 as amended.

In order to **be included in the Registers**, applicants must meet **moral requirements**<sup>80</sup> as well as **product consistency requirements**. Applicants **seeking registration with Qualification Systems of European magnitude** must meet **standard requirements**, such as the moral requirements laid down by industry norms, **as well as specific requirements applicable to each individual product category**. The latter are **defined by an interfunctional workgroup** consisting of representatives of the Safety and Protection Division, Purchasing and Logistics Division, Administration Division, Finance and Control Division and the operational Units involved from time to time depending on the type of goods and the characteristics of the tender.

**Prerequisites are classified** on the basis of the **following criteria: technical, environmental and safety reliability; commercial reliability; financial and contributory reliability; assessment of counterparty credit risk** (in accordance with the auditing principles set forth in the *Organisation, management and control model* under Legislative Decree No. 231/01).

The most important **technical, environmental and safety prerequisites** include:

- certification of the Company Quality Management System – UNI EN ISO 9001:2008 (binding prerequisite for certain goods) – or, for suppliers who do not hold such certification, a Quality, Safety and Environment qualification checklist;
- qualifications/accreditations obtained from third parties over the last 5 years;
- the absence of serious (duly ascertained) violations resulting from failure to comply with safety standards and any other employment-related obligation in the last 5 years;

- the **existence of an evaluation, selection and supervisory system for subcontractors/subsuppliers**, with special reference to the assessment of their technical and professional proficiency.

For example, regarding the **specific prerequisites for the “Printing” category of goods** (supply of printed material and forms), the **FSC Certification** (Forest Stewardship Council) was identified.

In order to be eligible for Community-wide Qualification Systems, **applicants are also required to allow, if appropriate, audits to be performed** at their administrative offices **in order to check document adequacy and accuracy**. Likewise, they must be willing to have **audits performed** at their operational facilities or warehouses in order to check **other requirements**, such as those pertaining to **safety, quality, manufacturing processes** (see below for audits performed in 2014). During procurement proceedings, other requirements may be demanded in addition to those set forth in the Qualification System, depending on the amount and magnitude of the contract to be awarded.

At **31 December 2014, 3,380 applications** for inclusion in Acea’s Qualification System/Suppliers’ Registers were approved, **up 48%** compared to the 2,283 applications in 2013, totalling **1,474 qualified economic operators** (up 46.5% compared to the 1,006 operators in the previous year).

In detail, Suppliers’ Lists<sup>81</sup> include:

- **402 operators** registered with Qualification Systems for works;
- **328 operators** registered with Qualification Systems for goods and services of European

magnitude;

- **78 operators** registered with **Professional Registers (Archaeologists and Safety Coordinators)**;
- **828 operators** registered with the **Norms for the register of suppliers below the Community threshold**.

Efforts continued in 2014 for the implementation of a **vendor rating system** that was first started in 2012. This system is expected to be integrated **with the Qualification Systems for electricity, water and electromechanical works**, whether existing or being renewed. More specifically, the **rating vendor model** was defined and the relevant **Implementation Regulations** applicable to electricity, water and electromechanical works was drafted. The model further requires that **Quality, Environment and Safety inspection activities** be conducted, resulting in points being awarded to the suppliers. **In 2014, 69 inspections were completed** involving economic operators that were executing contracts with Acea (also see detailed box on this subject).

During the year, a **database for the collection of the required rating elements became fully operational**, enabling the entire vendor rating system to apply to water, electricity and electromechanical works. As part of water and electromechanical works, the Safety and Protection Division also began to (i) carry out **on-site inspections** using personnel outside the project management team, and (ii) include in the model the assessments made by the project management team itself.

#### THE VENDOR RATING SYSTEM INTEGRATED WITH QUALIFICATION SYSTEMS AND REGISTERS: PROGRESS AT 2014

During the course of 2014, the Safety and Protection Division continued to implement and started commissioning the vendor rating system.

The Vendor Rating Model and its implementing regulations are based on an **“Entry Rating” (ER)** and a **“Field Rating” (FR)**. In detail, the **ER score**, which is awarded to all registered suppliers, consists of the score resulting from **Quality, Environment and Safety (QES) inspections** and the **assessment of the economic and financial strength** of the operator.

The **FR**, only applicable to suppliers who have been awarded a tender, is based on both the data collected during **on-site inspections** and the score awarded directly by the **Project Management team**.

In the year under review, **69 QES inspections** were conducted by the Safety and Protection Division team, consisting of representatives from the following Units: Suppliers’ Qualification, Quality & Energy and Safety in the workplace and Environment.

Inspections conducted since the project started (June 2012) totalled **169**, such inspections being focused on economic operators that were executing contracts with Acea. Virtually all contractors (**83**) that currently work for Acea as part of the registers for electricity, water and electromechanical works were audited.

As a whole, **143 suppliers** (listed in the register for electricity works and the register for water and electromechanical works) were audited, 26 of whom were re-audited. As a result of these activities, **52%** of the **143 suppliers** that underwent inspection visits proved “reliable” or “eligible”, while **48%** was found to be “partly eligible” or “critical”.

The suppliers rated as “partly eligible” and “critical” were required to **adopt corrective measures that would be checked during the following inspection visit**. More specifically, a monitoring visit was scheduled for “critical” suppliers within the next 12 months. The data collected during inspection visits were processed and stored in a database.

<sup>80</sup> As pursuant to Article 38 of Legislative Decree No. 163/2006 as amended. Two typical elements of the “moral” prerequisites set forth in the norms are particularly important with respect to the safeguard of workers, namely the regular payment of taxes and contributions to workers as certified by the DURC (Documento Unico di Regolarità Contributiva, single document certifying the regular payment of contributions), and compliance with safety regulations and any other employment-related obligation. Failure to comply with any of above prerequisites will cause applicants to be automatically ineligible for participation in tender proceedings.

<sup>81</sup> Consideration should be given to the fact that (i) an operator may be registered with several Qualification Systems/Registers, resulting in the total number of operators in 2014 (1,474) being lower than the sum of operators entered in individual Registers (1,636), and (ii) these figures do not take temporary suspension proceedings into account.



The activities of the **Sustainable Supply Chain Workgroup** continued in 2014, such group being established on the initiative of **Global Compact Network Italia**, of Acea is a member.

In this connection, the Suppliers' Qualification and Rating Unit has been providing its input for the definition and activation of a **tool for monitoring sustainability performance**

of companies belonging to the **supply chains** of Network members since the project was first launched, **with Acea being a supporting member of the pilot project** (see detailed box).

#### ACEA WITHIN THE SUSTAINABLE SUPPLY CHAIN OF GLOBAL COMPACT NETWORK ITALIA: THE TENP PLATFORM WAS LAUNCHED

In 2014, the Suppliers' Qualification and Rating Unit, in conjunction with the Corporate Social Responsibility and Sustainability Unit, continued to contribute to the **Sustainable Supply Chain Workgroup** established as part of **Global Compact Network Italia**.

The goal of the Workgroup, consisting of Acea and other companies that support the pilot project, including A2A, ANSALDO STS, EDISON, ENI, ITALCEMENTI and NESTLÉ ITALIANA (Ten Platform Partners), is to share and implement a tool for monitoring sustainability performance of the companies that belong to the supply chains of Network members.

Consistent with endeavours undertaken last year, a **supplier's self-assessment questionnaire** (TenP) was defined based on the **ten principles of the Global Compact** of the United Nations and major corporate sustainability international standards. In addition, the **TenP Sustainable Supply Chain Self-Assessment web-based IT platform was implemented**, allowing information on suppliers' sustainability practices from a supply-chain perspective to be collected and shared.

The questionnaire addresses major topics such as Human Rights, Labour, Environment and Fight against Corruption and was designed in such a way as to allow companies engaging in any industry and based in any geographical area to complete it. During the year, **the questionnaire was submitted, on an experimental basis, to a sample of suppliers** chosen by the Ten Platform Partners and, still on an experimental basis, **effective January 2015 it will become mandatory in order to be registered with Acea qualification systems for water, electromechanical and electricity works**.

Moreover, in line with Global Compact provisions pertaining to the scope of the ten principles promoted by the initiative and further consistent with the development of the international guidelines for sustainability reporting (GRI-G4), in 2014 the Workgroup set out to identify some supplier-related indicators required under the guidelines to include in the pre-qualification criteria.

The *Sustainable Supply Chain* Workgroup will carry on the project according to a number of development policies: integration with the partners' qualification systems, definition of mechanisms to drive sustainability performance of companies/suppliers, creation of tools for checking the accuracy of the information entered in the TenP Platform.

Consistent and in conjunction with the parent company, the operating companies undertake activities that have **positive impacts along the supply chain** in terms of greater controls on quality and safety matters. Pursuant to the **Memorandum on Water Tender Contracts** signed in 2012 by **Acea Ato 2** together with Acea SpA, federal unions and trade unions, **several meetings were held in 2014 as part of the**

**Joint Committee** for the purpose of enabling a commitment towards continuous improvement of works and services in the water area (see relevant box). Acea Ato 2 placed major emphasis on the **monitoring of contractors**. To this end, it set up an internal audit team tasked with providing quality, safety and environmental ratings consistent with the vendor rating model prepared by the parent company. More specifically, on-site

inspection activities launched in the previous year carried on, **with 296 inspection visits being performed in 2014**.

**Acea Energia** continued to monitor the **quality of the sale services provided by the agents** with a view to customer protection (see detailed box).

#### ACEA ATO 2: MEETINGS WITH THE JOINT COMMITTEE AS PART OF THE MEMORANDUM ON WATER TENDER CONTRACTS

In June 2012, Acea SpA, Acea Ato 2 e federal unions CGIL, CISL and UIL, together with trade unions Filctem, Flaei, Uilcem, Fillea, Filca and Feneal signed the **Memorandum on water tender contracts**. In September 2014, during a meeting of the Joint Committee established under the Memorandum, with a view to a general review of the Group's tender management process the parties met to consider **sharing actions aimed at improving** the current water tender contract management system for Acea Ato 2, chiefly impacting the employment relationship of employees of contractors performing work on behalf of Acea, **by specifying/streamlining the control areas lying with the contracting authority**. Acea was willing to pursue the matter further in order to establish whether the requests were feasible, providing its feedback in two subsequent Committee meetings held in October and November 2014.

During these meetings, **the implementation status of the Group's Vendor Rating and Suppliers' Qualification System was also illustrated to the union organisations**, together with the additional **control and monitoring actions** undertaken by both Acea Ato 2 and the Safety and Protection Division of the parent company by means of on-site inspections aimed at checking compliance with the execution terms and conditions of the tenders awarded.

The union organisations were also provided with supplementary documents in addition to documents already submitted by Acea Ato 2 on a regular basis in respect of ongoing tender contracts, pursuant to the disclosure terms under the Memorandum for water tender contracts signed by the parties. Such documents provided an overview of the status, extent and progress of the tender contracts awarded by the Company. Attending the meetings were also the Safety and Protection and Purchasing and Logistics units, who shared insight on matters lying within their province, respectively.

## ACEA ENERGIA AND SALES AGENTS: TRAINING AND SERVICE MONITORING IN 2014

Acea Energia, the Group company responsible for managing the **sale of electricity and gas**, recruits **Agencies for door to door sale and/or teleselling** activities in the “household” and “micro business” free market. In 2014, **the quality of the sales service delivered by the agents continued to be monitored**, according to **procedures that were introduced** two years ago and reflected in the **Agency Agreement** governing the relationship between Acea Energia and the sales agent network, the purpose being to protect customers and prevent any unfair commercial practises.

The **Agency Agreement** requires **mandatory training for staff members** who operate on behalf and in the name of Acea to ensure that they provide accurate information to the customers, with **finances** also being applicable in the event that unfair commercial practices are identified.

**In 2014, Acea Energia provided training to 1,205 salesmen, totalling 1,400 hours of tuition** focused on the regulations issued by the industry Authority, Commercial Code of Conduct and Products being offered. At the end of the course, the participants are required to undergo and pass a written test (questionnaire) in order that they may be authorised to operate on behalf of Acea Energia, with an appropriate identity card being issued.

The company, to whom customers send reports and complaints, has also adopted **strict internal audit procedures to monitor agent performance** (see *Customers and Community* under *Customer Care*).

If unfair commercial practices are detected, then **finances will be inflicted pursuant to the Agreement** starting from 1,000 euros, plus the non-payment of any compensation accrued during the relevant month in connection with the commercial quality of acquisitions. **In 2014, new (electricity and gas) supplies acquired totalled 261,982, in respect of which 1,793 customer complaints were reviewed and investigated, with 14 sanctions being inflicted for misconduct** (totalling 14,000 euros), a trend in line with 2013.

In 2014, monitoring activities aimed at ensuring compliance with environmental and safety regulations also continued for the **companies engaging in Environment operations** (waste-to-energy and environmental services). In this regard, **the companies that provided the main technological components** for the revamping of the waste-to-energy plant in Terni (A.R.I.A.) were subject to audit, including **factory inspections, checking construction standards and design specifications**. With respect to the plant located in Orvieto, where revamping works are currently underway, a technical audit was performed on a treatment station having similar characteristics, which was built and managed by the same company performing the aforesaid works.

**Acea Distribuzione** has adopted a **vendor rating model** for energy-related works **since 2008 and it has therefore been possible to test its effectiveness** over a fairly long timeframe. The **evaluation system centres on quality, safety and environmental**

**standards, contemplates on-site inspections and merit rankings based on the contractors' repute**. Moreover, penalties may be inflicted and contractor's operations may be suspended under the above system. **In 2014, 43 construction sites were suspended for "non-compliance" with safety provisions** out of a **total of 1,240 visits completed**.

The application of vendor ratings is a **constant incentive for contractors to improve**, with respect to the parameters being monitored: **in 2014, the average reputation index appeared for the first time to remain high compared to the previous year, rising from 97.44 in December 2013 to 97.49 at** December 2014 (see relevant detailed box).

In line with Acea Distribuzione's adoption of the Safety, Environment, Energy and Quality Integrated Management System, **contractors are also required to accept the Integrated System Policy, with special reference to the health and safety in the workplace and environment protection**.

## QUALITY AND SAFETY: 2014 RESULTS OF THE VENDOR RATING SYSTEM FOR ENERGY-RELATED WORKS

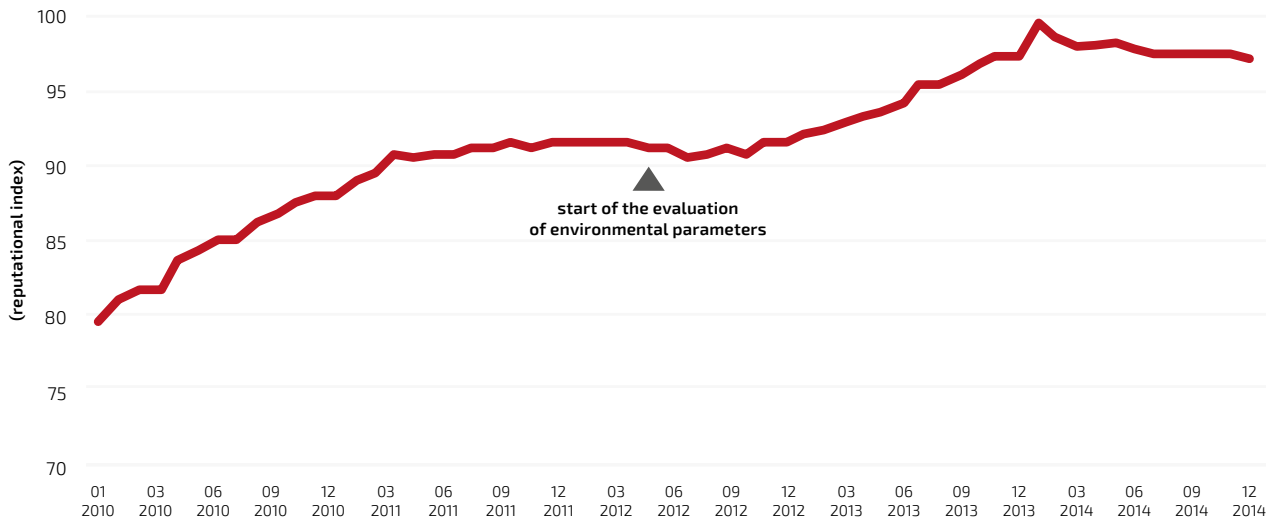
The performances of contractors engaging in energy-related works are measured according to a method developed in conjunction with *Center of Advanced Procurement* of the “Tor Vergata” University of Rome, whereby information collected following on-site inspections is processed based on 142 rating criteria centring on quality, safety and environment, converting them into a “reputation index” (RI).

Together with other criteria pertaining to the entire work award and execution process, the RI is used to determine the overall rating of the firms registered with the Qualification System, the goal being to encourage these companies to undertake organisational and operational enhancement actions.

During the 2010-2014 five-year term, the “Inspection and Audit” Unit of Acea Distribuzione completed about 4,870 inspections. The companies' annual average reputation index rose from 79.9 in January 2010 to 97.49 in December 2014, showing a strong uptrend. The system proved effective in increasing the operators' reliability, ensuring optimum performance levels and having a positive impact along the supply chain.

The reputation index, namely the rating that the company gives to its supplier over time, can be used together with the bid price being proposed to evaluate bids on the basis of elements other than price.

The chart shows the annual trend of the average evaluation of all companies from January 2010 to December 2014, considering that at project launch (2008) the monthly average index was 40 approximately.



## TWO ACCIDENTS AT KYKLOS PLANT AND ACEA ATO 2 SITE AT P.LE DUNANT

On 28 July 2014, during routine leachate collection operations at the Kyklos composting plant in Aprilia (Latina), an accident occurred resulting in the death of two workers employed with one of the contractors in charge of leachate collection and transportation operations. The plant is designated solely for the treatment of non-hazardous waste consisting mainly of the organic fraction of urban solid waste and other matters allowed in the composting process. The causes and dynamics of the two fatalities are still unknown and the investigations started by the relevant judicial authorities are still underway.

On 21 August 2014, a work-related accident occurred at the site of a contractor as part of a tender contract for maintenance awarded by Acea Ato 2 at Piazzale Dunant in Rome, involving three workers employed with the aforesaid contractor.

Two of them suffered skin burns with a 5-day prognosis, while the third worker died on 26 August 2014 despite prompt hospitalisation at Sant'Eugenio hospital.

Reportedly, the accident happened while the firm was operating inside a manoeuvre room of the water grid. Investigations by the relevant authorities are still underway.

With regard to both occurrences, the Acea Group companies assisted the investigating bodies as best as they could and started their respective internal proceedings (review of internal procedures, management systems, meetings with supervisory boards) in order to identify - with a view to continuous improvement - actions aimed at enhancing the respective safety management systems.

## DISPUTES WITH SUPPLIERS

Disputes between the Company and its suppliers pertained primarily to two areas: disputes for non-payment of goods, works and services supplied and legal actions concerning tender contracts.

With regard to the former, in 2014 18 incidents occurred, mainly relating to notifications of invoices that were not paid due to formal reasons which however were quickly settled thereafter.

With regard to litigations pertaining to tenders, 15 legal proceedings were started during the year. As a whole, legal disputes pending at 2014, including those started in previous years and less proceedings settled during the year, amounted to 84: 29 cases pertained to appeals filed the Regional Administrative Court in respect of awards, while the remaining 55 related to legal actions brought before ordinary courts of law in respect of reservations on the part of the contractors, contract terminations, etc.

# HUMAN RESOURCES

We will drive our people's growth and professional development by promoting an innovation-oriented culture in the pursuit of our business goals.

## ACEA'S PERSONNEL

The Group workforce at 31/12/2014, by consolidation percentage, numbered 5,105 resources. Compared to 2013 (5,195 employees) this represented a decrease of roughly 1.7%, caused mainly by drops in both the water and network areas to the same extent. By contrast, the headcount in the energy and environment areas showed slight increases. The quantities of human resources were also recalculated in 2014 due to changes in the basis of consolidation under the new accounting criteria.

**TABLE 42 - EVOLUTION OF GROUP HUMAN RESOURCES BY BUSINESS AREA (2013-2014)**  
(year-end balances by consolidation percentage)

BUSINESS AREA	2013 RESTATED (NO. OF EMPLOYEES)	2014 (NO. OF EMPLOYEES)
<b>Water</b>	<b>2,405</b> of which	<b>2,366</b> of which
Lazio - Campania	1,834	1,792
Tuscany - Umbria	15	-
Foreign countries and LaboratoRI	556	574
<b>Energy</b>	<b>1,719</b> of which	<b>1,672</b> of which
Networks	1,382	1,335
Generation and sales	337	337
<b>Environmental services</b>	<b>216</b>	<b>221</b>
<b>Corporate</b> (Acea SpA+Acea8cento)	<b>855</b>	<b>846</b>
<b>Total</b>	<b>5,195</b>	<b>5,105</b>

**TABLE 43 - GEOGRAPHIC LOCATION OF RESOURCES (2013-2014)(\*)**

LOCATION	2013 RESTATED		2014	
	NUMBER	%	NUMBER	%
Central-north Italy (Tuscany-Umbria)	15	0.3	-	-
Central-south Italy (Lazio-Campania-Puglia)	4,784	92.1	4,693	91.9
Foreign countries	396	7.6	412	8.1

(\*) by registered office of the company in which they are employed

## COMPOSITION AND TURNOVER

Following the adoption of new accounting principles (IFRS10 and IFRS11), at 01/01/2014, the consolidation boundary of the Group has changed, and the reporting boundary

for the current section conforms to this new development. To ensure the uniformity of information for the three years under review, the data for the 2012-2013 period were restated.

### REPORT BOUNDARY

The information and data shown in *Composition and Turnover* pertain to: Acea SpA, Acea Distribuzione, Acea Illuminazione Pubblica, Acea Reti e Servizi Energetici, Acea Energia, Acea Produzione, Acea8cento, Acea Ato 2, Acea Ato 5, LaboratoRI, Acea Gori Servizi, Crea Gestioni, Gesesa, Lunigiana, Solemme, A.R.I.A, SAO, Aquaser, Kyklos, Innovazione Sostenibilità Ambientale (ISA) and, beginning 2014, the company S.A.MA.CE.

Acea SpA's **Human Resources and Organisation Division** sees to the **administrative management of human resources**, both in service and on behalf of the subsidiary companies. The subsidiaries entrust this management to the parent company or outsource the same to other companies on the market, with a view to efficiency of processes and

rationalisation of costs. The three-year period 2012-2014 saw the **total number of resources employed** by the Group's companies **register a contraction**, particularly due to the reduction in numbers of white and blue-collar workers, although the overall effect was limited. Moreover, each professional category retained the same weight in

the overall personnel structure. Changes in the workforce composition are in part determined by the inherent turnover of personnel, but also result from **the changes in employment category** and the **career advancements of the personnel already present in the company**. The **incidence of female personnel in**

the overall workforce, at 23.1%, remains substantially stable over the period considered. The prevalence of male personnel in the Group

is explained in light of the technical-operational character of the business areas, which limits the flexibility in the gender structure: in Italy,

positions in the technical professions are still primarily held by men (see Table 44).

**TABLE 44 – ACEA EMPLOYEES: COMPOSITION OF HUMAN RESOURCES (2012-2014)**

(BY NUMBER)	2012				2013				2014 (*)			
	MEN	WOMEN	TOTAL	%	MEN	WOMEN	TOTAL	%	MEN	WOMEN	TOTAL	%
Executives	83	19	102	2.1	81	19	100	2.1	82	18	100	2.1
Managers	269	104	373	7.8	272	110	382	8.0	268	107	375	8.0
White-collar workers	1,904	965	2,870	59.9	1,890	965	2,855	59.9	1,869	952	2,821	60.3
Blue-collar workers	1,443	5	1,447	30.2	1,424	5	1,429	30.0	1,382	4	1,386	29.6
<b>Total</b>	<b>3,699</b>	<b>1,093</b>	<b>4,792</b>	<b>100.0</b>	<b>3,667</b>	<b>1,099</b>	<b>4,766</b>	<b>100.0</b>	<b>3,601</b>	<b>1,081</b>	<b>4,682</b>	<b>100.0</b>

**Note:** The workforce total shown in the table differs, due to the reporting boundaries, from the figure indicated for consolidation percentage (see Table 42).

(\*) Effective 1 January 2014, the 11 employees of the S.A.MA.CE. company have been subsumed under the administration of Acea SpA.

In 2014, the **incoming employees decreased significantly** compared to the preceding two years. In particular, there were **79 new entries**: by means of **9 acquisitions** of personnel deriving from Group companies, from **26 confirmations** of personnel already present in the Group but with 'atypical' contracts, from **42 recruitments from the external labour market** - of which 21 were open-ended contracts (with 4 persons belonging to protected categories), 19 fixed-term contracts, and 2 apprenticeships, plus **2 hirings due to litigations**.

The companies most affected by the arrival of human resources are Acea Ato 5, with 22 entries, Acea Energia with 13 entries, A.R.I.A with 10 hirings, Acea8cento with 9 entries and Acea SpA with 8 entries. Overall, in 2014 there were 55 individuals hired with open-ended contracts and 22 new personnel with fixed-term contracts. Of the incoming personnel, 73.4% were between 20 and 40 years of age (see Table 46).

**Human resources leaving the company** grew compared to the preceding two-year period,

reaching **a total of 174 people** (see Table 45). In particular, **114 employees were laid off** (50 from Acea Ato 2, 35 from Acea Distribuzione, 11 from Acea SpA, 7 from Acea Energia, 6 from Acea Ato 5, 3 from A.R.I.A, 1 from Acea Produzione and 1 from Acea Illuminazione Pubblica) and **six workers** decided to terminate their working contracts with the company under **plans for facilitated voluntary redundancy**. Roughly 80% of the personnel leaving were more than 50 years of age (see Table 46).

**TABLE 45 – ACEA EMPLOYEES: PERSONNEL ENTERING AND LEAVING (2012-2014)**

(NUMBER) ENTRIES	2012			2013			2014		
	MEN	WOMEN	TOTAL	MEN	WOMEN	TOTAL	MEN	WOMEN	TOTAL
Open-ended contracts	28	45	73	33	21	54	42	13	55
Fixed-term contracts	15	18	33	19	5	24	19	3	22
Professional apprenticeship contracts	0	2	2	1	3	4	2	0	2
Acquisition of business segments	66	19	85	32	11	43	0	0	0
<b>Total</b>	<b>109</b>	<b>84</b>	<b>193</b>	<b>85</b>	<b>40</b>	<b>125</b>	<b>63</b>	<b>16</b>	<b>79</b>
(of which) personnel acquired from public agencies	0	0	0	5	1	6	9	0	9

EXITS (*)	2012			2013			2014		
	MEN	WOMEN	TOTAL	MEN	WOMEN	TOTAL	MEN	WOMEN	TOTAL
Mobility (lay-offs)	53	11	64	76	15	91	91	23	114
Redundancies	26	6	32	12	2	14	6	0	6
Retirements	2	0	2	0	0	0	2	0	2
Dismissals	0	1	1	0	0	0	6	1	7
Other reasons	46	6	52	29	17	46	34	11	45
<b>Total</b>	<b>127</b>	<b>24</b>	<b>151</b>	<b>117</b>	<b>34</b>	<b>151</b>	<b>139</b>	<b>35</b>	<b>174</b>

(\*) Among "exits", the "mobility (lay-offs)" entry indicates a form of subsidized, voluntary retirement, subject to union negotiation, which the company can propose to employees about to retire, after a preliminary organisational analysis aimed at limiting the social impact of the retirement process and investigating other considerations. The redundant employees are found within organisational areas with excess personnel, and among those with the personal and contributory requirements for receipt of pension within three years of termination of their employment. The "redundancies" entry indicates the consensual and indemnified termination of the employment contract; the "other reasons" entry includes exits due to: **contract expiry (23 in 2014), resignations (10 in 2014), death (11 in 2014), and health problems (1 in 2014).**

**TABLE 46 – ACEA EMPLOYEES: PERSONNEL ENTERING AND LEAVING BY AGE CLASS (2014)**

AGE	PERSONNEL ENTERING, 2014			PERSONNEL LEAVING, 2014		
	MEN	WOMEN	TOTAL	MEN	WOMEN	TOTAL
≤ 20 years	0	0	0	0	0	0
> 20 years and ≤ 30 years	21	8	29	7	5	12
> 30 years and ≤ 40 years	22	7	29	10	6	16
> 40 years and ≤ 50 years	10	1	11	7	0	7
>50 years	10	0	10	115	24	139
<b>Total</b>	<b>63</b>	<b>16</b>	<b>79</b>	<b>139</b>	<b>35</b>	<b>174</b>

The **duration of the employment for human resources leaving** the Group demonstrates the essential **stability of the company workforce**: in 2014, 55.7% of leaving personnel had been

employed in the Group for not less than 20 years, and 43.7% for a duration of between 20 to 40 years. Considering just the companies active in the

energy sector, the figures are essentially in line with the whole Group: 64.2% of leavers had served in the companies for between 20 and 30 years, and 35.8% for between 30 and 40 years.

**TABLE 47 – ACEA EMPLOYEES: DURATION OF THE EMPLOYMENT RELATIONSHIP (2014)**

DURATION OF THE EMPLOYMENT RELATIONSHIP	PERSONNEL LEAVING IN 2014		
	MEN	WOMEN	TOTAL
≤ 20 years	75	22	97
> 20 years and ≤ 30 years	25	4	29
> 30 years and ≤ 40 years	38	9	47
> 40 years and ≤ 50 years	1	0	1
<b>Total</b>	<b>139</b>	<b>35</b>	<b>174</b>

**TABLE 48 – ENERGY SECTOR COMPANIES: DURATION OF THE EMPLOYMENT RELATIONSHIP (2014)**

DURATION OF THE EMPLOYMENT RELATIONSHIP	PERSONNEL LEAVING IN 2014		
	MEN	WOMEN	TOTAL
≤ 20 years	0	0	0
> 20 years and ≤ 30 years	26	8	34
> 30 years and ≤ 40 years	14	5	19
> 40 years and ≤ 50 years			0
<b>Total</b>	<b>40</b>	<b>13</b>	<b>53</b>

**Note:** In keeping with the GRI Sector protocol (commentary on LA2), the data refer to Group personnel employed by companies operating in the energy sector, situated mostly in Lazio.

At Acea, almost all employees are engaged on a permanent basis. In particular, **99.5% of the workforce is employed under open-**

**ended contracts**, a statistic in line with that of 2013. Resources employed with professional apprenticeship contracts remained

stable compared to the preceding year, and fixed-term contracts registered a slight increase (see Table 49).

**TABLE 49 – ACEA EMPLOYEES: CONTRACT TYPE (2012-2014)**

(BY NUMBER)	2012			2013			2014		
	MEN	WOMEN	TOTAL	MEN	WOMEN	TOTAL	MEN	WOMEN	TOTAL
Permanent work-force (open-ended contracts)	3,671	1,069	4,740	3,657	1,088	4,745	3,581	1,077	4,658
<i>of which part-time personnel</i>	25	86	111	21	97	118	20	93	113
Personnel with fixed-term contracts	22	18	40	8	6	14	16	1	17
Personnel with professional apprenticeship contracts	6	6	12	2	5	7	4	3	7
<b>Total</b>	<b>3,699</b>	<b>1,093</b>	<b>4,792</b>	<b>3,667</b>	<b>1,099</b>	<b>4,766</b>	<b>3,601</b>	<b>1,081</b>	<b>4,682</b>

In 2014, **the turnover rate declined to 5.4%**, continuing the trend of the preceding two-year period; the recruitment rate also decreased, while the exit rate registered an increase of 0.5% (see Table 50).

**TABLE 50 – TURNOVER, RECRUITMENT AND LEAVING RATES (2012-2014)**

TURNOVER RATE			RECRUITMENT RATE			EXIT RATE		
2012	2013	2014	2012	2013	2014	2012	2013	2014
7.2%	5.8%	5.4%	4.0%	2.6%	1.7%	3.2%	3.2%	3.7%

**Note:** The turnover rate is the result of the sum of the year's recruits and outputs as a ratio of total workforce at year-end. The companies indicated by these data are mostly situated in the Region of Lazio. Following are the 2014 data by gender: turnover for women 1.1%, turnover for men 4.3%; recruitment for women 0.4%, recruitment for men 1.3%; women's exit rate 0.7%, men's 3%.

In 2014 **the average age and seniority** of the company's personnel remained substantially unvaried from the previous year (see Tables 51 and 52). Most human resources are in the younger age classes: **67.7% of employees are aged between 36 and 55** and **13.8% are 35 or less** (see Table 53).

**TABLE 51 – ACEA EMPLOYEES: AVERAGE AGE OF PERSONNEL (2012-2014)**

(IN YEARS)	2012			2013			2014		
	MEN	WOMEN	TOTAL	MEN	WOMEN	TOTAL	MEN	WOMEN	TOTAL
Average age of Acea workforce	46.5	42.7	<b>45.6</b>	47.0	43.3	<b>46.2</b>	47.4	43.9	<b>46.6</b>
Average age of executives	50.9	49.6	<b>50.7</b>	51.2	49.5	<b>50.9</b>	52.0	50.4	<b>51.7</b>
Average age of managers	46.4	42.2	<b>45.0</b>	47.0	42.8	<b>45.6</b>	49.5	47.0	<b>48.8</b>
Average age of white-collars	46.0	53.6	<b>46.0</b>	46.6	54.6	<b>46.6</b>	47.4	43.4	<b>46.1</b>
Average age of blue-collars	47.9	45.8	<b>47.3</b>	48.7	46.3	<b>48.0</b>	46.7	54.5	<b>46.8</b>

**TABLE 52 – ACEA EMPLOYEES: AVERAGE SENIORITY OF PERSONNEL (2012-2014)**

(IN YEARS)	2012			2013			2014		
	MEN	WOMEN	TOTAL	MEN	WOMEN	TOTAL	MEN	WOMEN	TOTAL
Average workforce seniority	14.5	11.8	<b>13.9</b>	15.2	12.3	<b>14.5</b>	15.9	13.2	<b>15.3</b>
Average seniority of executives	15.7	18.9	<b>16.3</b>	16.2	18.5	<b>16.6</b>	17.2	20.2	<b>17.7</b>
Average seniority of managers	15.4	11.4	<b>14.0</b>	16.1	11.8	<b>14.6</b>	16.8	12.7	<b>15.4</b>
Average seniority of white-collars	13.0	19.2	<b>13.0</b>	13.5	20.2	<b>13.6</b>	14.2	18.0	<b>14.3</b>
Average seniority of blue-collars	16.1	14.5	<b>15.6</b>	17.0	15.3	<b>16.5</b>	18.3	16.0	<b>17.6</b>

**TABLE 53 – ACEA EMPLOYEES: AGE CLASSES (2014)**

	MEN	WOMEN	TOTAL
≤ 25 years	10	6	<b>16</b>
> 25 years and ≤ 30 years	111	73	<b>184</b>
> 30 years and ≤ 35 years	286	161	<b>447</b>
> 35 years and ≤ 40 years	411	168	<b>579</b>
> 40 years and ≤ 45 years	569	177	<b>746</b>
> 45 years and ≤ 50 years	752	204	<b>956</b>
> 50 years and ≤ 55 years	708	179	<b>887</b>
> 55 years and ≤ 60 years	645	97	<b>742</b>
>61 years	109	16	<b>125</b>
<b>Total</b>	<b>3,601</b>	<b>1,081</b>	<b>4,682</b>

Regarding the **level of education of the human resources**, in 2014 the incidence of people with **university degrees or high-school diplomas** in the overall workforce increased, respectively to

**16.3%** and **47.9%** (15.7% and 47.8% in 2013) (see Table 54); the incidence of employees with other educational qualifications remained essentially constant at roughly 17%.

The percentage of **women graduates out of total graduates** increased slightly in 2014, to 41.6% (from 42.1% in 2013).

**TABLE 54 – ACEA EMPLOYEES: EDUCATION LEVELS (2012-2014)**

(BY NUMBER)	2012			2013			2014		
	MEN	WOMEN	TOTAL	MEN	WOMEN	TOTAL	MEN	WOMEN	TOTAL
University graduates	448	311	<b>759</b>	434	316	<b>750</b>	445	317	<b>762</b>
High-school diploma-holders	1,771	528	<b>2,299</b>	1,754	522	<b>2,276</b>	1,730	514	<b>2,244</b>
Other qualifications	766	66	<b>832</b>	757	65	<b>822</b>	731	59	<b>790</b>
Undefined	714	188	<b>902</b>	722	196	<b>918</b>	695	191	<b>886</b>
<b>Total</b>	<b>3,699</b>	<b>1,093</b>	<b>4,792</b>	<b>3,667</b>	<b>1,099</b>	<b>4,766</b>	<b>3,601</b>	<b>1,081</b>	<b>4,682</b>

**Note:** data on the level of employee education is not available for the companies: A.R.I.A., Aquaser, SAO, Kyklos, Innovazione Sostenibilità Ambientale (ISA), Solemme and S.A.MA.CE.

**REPORT BOUNDARY**

Information and data shown in *Industrial Relations* involve Acea SpA, Acea Distribuzione, Acea Illuminazione Pubblica, Acea Reti e Servizi Energetici, Acea Energia and Acea Produzione, Acea8cento, Acea Ato 2, LaboratoRI, A.R.I.A., SAO and Crea Gestioni.

For human resources within Acea, the **National Consolidated agreement for the electricity sector** and the **Consolidated agreement for the gas-water sector** are applied, while within Acea8cento, an ad hoc contract is applied, specifically defined with the pertinent national associations. **All employees** are therefore

covered by **collective bargaining agreements**. The level of unionisation in 2014 was **75.6%**, in line with last year's data (75.4%); there were 325 employees with roles as union representative or **executives**, 17 of which were **Worker's Safety Representatives (RLS)**, appointed under terms of a union agreement.

At the beginning of 2014, following a difficult negotiation process, a renewal was signed for the **National consolidated agreement for the gas-water sector**, which had in fact expired as of 31/12/2012 (see in-depth box).

**RENEWAL OF THE CONSOLIDATED AGREEMENT FOR THE GAS-WATER SECTOR**

The renewal of the **National consolidated agreement (CCNL) for the gas-water sector** introduced important elements of innovation and development for the labour relations system and addressed important topics, including:

- a new scheme for the practice of **availability**, which overcomes the differences among the companies arising from the continuation of the preceding individual contract provisions, both concerning economic and regulatory matters;
- updating of contract provisions to meet legislative changes on **labour market** matters (professional apprenticeships, open-ended contracts, application of fixed terms);
- increased flexibility in **working hours**;
- redefinition of remuneration for **night work**;
- revision of the norms on the exit of workers from **shift work**;
- abolition of **seniority-based raises** beginning 31/12/2015;
- an undertaking to revise the **personnel classification system**.

The **economic** aspect of the renewal included: a "one-time" economic settlement for the year 2013, of 300 euros; an increase in minimum wages in three stages (60 euros beginning January 2014, 40 euros beginning January 2015 and 43 euros beginning July 2015); and the designation of a share of the overall salary package towards 2<sup>nd</sup> level contracting for result bonuses (for an overall total equivalent to 480 euros per employee in the 2014-2015 period).

During 2014, the Acea **Industrial Relations Unit** and the **Trade Unions** discussed and defined questions covering all areas of their continuing dialogue: regulatory, economic and work organisation.

As far as **organisation and working hours**, agreements were reached on the following issues:

- For Acea Ato 2, with regard to the new company organizational structures, solutions were defined ensuring consistency between norms in the matter of working hours and the management of shift work;
- For the companies SAO and A.R.I.A. an

understanding on rules for video-surveillance of facilities was signed,

- For the company A.R.I.A., whose production site at Paliano is still under sequester following the fire of 2013, there was a redefinition of the hours of work for the two employees that provide minimum monitoring for the site;
- Two agreements were signed on the matter of telephone recording for the activities carried out by the trading operators of Acea Produzione, and by the operators of the Acea8cento call centre.

**The Group's cross-sectorial negotiations** concerned a number of areas of interest for the **development of the 2015-2018 industrial plan**. Three tentative, inter-related agreements were developed, which were then subject to union meetings, where they met approval by a large majority, then being ratified by year's end. These agreements structure the Group's path towards the achievement of strategic developmental objectives, through an intense programme of changes (see in-depth box).

**AGREEMENTS REACHED THROUGH CROSS-SECTORIAL NEGOTIATIONS**

The agreements signed deal with the following macro-topics:

- **2<sup>nd</sup> level negotiations**: concerning **the technical, normative and economic structures for the result bonus**, for the three years 2015-2017, and the increase in the value of the Ticket;
- **Labour policies**: for effective qualitative-quantitative control in the management of the Group's production processes and in planning turnover;
- a **Workforce Management Project (WFM)**: for continuing implementation of technologically advanced instruments in the businesses' operating activities, in conformity with the procedures of Article 4 of Italian Law 300/70.

The **2<sup>nd</sup> level negotiations** were particularly innovative for: the identification of technical indicators serving in the measurement of the real contribution of the workers to the achievement of the reference company's pre-established objectives, and to define the corresponding economic value to be provided to the personnel; the **different modification of the factors of Profitability and Productivity/Quality**, with respectively incremental and subtractive effect in the calculation of the result bonus; the **introduction of the Factor of Individual Evaluation** (in addition to Profitability and Productivity/Quality), taking into account the individual performance of each employee in reaching the pre-established results and expectations, and acting as incremental or subtractive coefficient of the economic principle.

The **Workforce Management Project (WFM)** implements an integrated-information solution to the management systems already used and in continuing evolution. Under the agreement there has been the institution of specific Committees that will follow the activation and monitoring of the implementation of the systems and the analysis of the competencies involved in the project. The body of the agreement gave particular attention to the massive plans of personnel training, both directly and indirectly affected by the use of new technological solutions, which will be launched with the activation of the different project steps.



The other **agreements reached during the year** concerned aspects of major importance to Group personnel, such as **contract harmonisation, corporate restructuring, health and safety in the workplace, training and the result bonus.**

In particular, in the Environment business area, the system of technical indicators for the 2014 result bonus was modified and further elaborated. For Crea Gestioni, the application of Profitability and Productivity factors was confirmed for 2014, derived from the agreements signed in 2011, and the value of meal vouchers was increased starting from January 2015.

Concerning **training**, different Acea companies joined the **FOR.TE Fund (National Inter-Professional Joint Fund for Continuing Education in the Service Sector)** for the 2014-2015 period, and shared in planning the FOR.TE program with the Trade Unions (see *Training and development of human resources*).

Finally, over the course of the year, the **Memorandum for Water Tenders**, signed

in 2012 by Acea SpA, Acea Ato 2 and the Trade Unions, was subject to continuing close attention, related in part to the renewal anticipated in the Group's tender system (also see *Suppliers*).

Concerning **prior disclosure to employees on possible organisational changes or corporate restructurings with potential effect on employment relationships**, the Group addresses the different cases with different responses, as follows:

1. **Organisational changes:** if a new unit is created or missions are changed, the Acea SpA Human Resources and Organisation Division issues an Organisational provision and transmits the disclosure to the relevant offices, which publish it on the bulletin boards and company intranet. Usually, on modifications affecting workers, the union representatives are given the pertinent information; where effects concern single employees (changes in place of work, timetables, and so forth), these receive a specific communication;
2. **Corporate restructurings:** in case of

restructurings resulting from significant organisational and productive changes, with effects on working conditions and employment, the way of disclosing information to employees and their Trade Union Representatives is governed by the CCNLs implemented within the Group and by the Industrial Relations Protocols;

3. **Company transformations** (such as transfers, mergers, takeovers, transfer of business segments): in case of company transformations, disclosure to employees is governed by the current regulation,<sup>82</sup> which includes duties of informing the labour representatives, so as to enable them to verify the industrial justifications for the changes, the correct formalities of the processes, and the repercussions on employment relations. Given the well-established character of industrial relations at Acea, interactions with trade unions on these topics are often brought forward compared to the legislated requirements.

## DISPUTES WITH EMPLOYEES AND TRADE UNIONS

Disputes lodged by employees against Acea mainly concern **grade review, wage/salary differences, indemnities not received** (e.g. shift pay), **demotion and mobbing.**

2014 saw **93 disputes** active, of which 25 cases opened in the year, which is a decrease compared to 2013 (107 disputes). **Four collective cases** were also launched, by 71 employees, for maintenance of subsidies on their personal electrical rates. A proceeding with the last six workers of the COS (Almaviva Contract) remains open from previous years, since the Rome Court of Appeal rejected the appeal presented by Acea, which then decided to appeal further to the Court of Cassation.

2014 also saw the conclusion, with favourable outcome to the company, of a litigation concerning a presumed irregular tender and fraudulent administration, as well individual appeals concerning trust-based working hours.

## DIVERSITY AND EQUAL OPPORTUNITIES

### REPORT BOUNDARY

The information and data shown in this section involve: Acea SpA, Acea Distribuzione, Acea Illuminazione Pubblica, Acea Reti e Servizi Energetici, Acea Energia, Acea Produzione, Acea8cento, Acea Ato 2, Acea Ato 5, Laboratorio, Acea Gori Servizi, Crea Gestioni, Gesesa, Lunigiana, Solemme, A.R.I.A, SAO, Aquaser, Kyklos, Innovazione Sostenibilità Ambientale (ISA), and since 2014, S.A.MA.CE.

Acea hires and integrates **human resources from protected categories** (differently-abled, orphans, others), in accordance with the relevant legislation.<sup>83</sup> Such individuals are guaranteed support services, assistance and technical aids to help them carry out their tasks, thanks in part to the activities of the Associazione Nazionale Mutilati e Invalidi Civili (ANMIC, National Association for Disabled and Invalid Civilians). At the close of 2014, the personnel belonging to protected categories included **259 resources** (160 men and 99 women). Acea also maintains an **Equal Opportunities Committee (CPO)**, which proposes and supports policies and initiatives **for overcoming all forms of inequalities.** The CPO has a dedicated area on the company intranet. Acea ensures the implementation of the policy on protecting equal opportunity by means of *Regulations for*

*safeguarding the dignity of women and men.*

There is also a Confidential Advisor: an outside expert who is responsible for gathering and responding to reports of discrimination, sexual harassment and mobbing.

In 2014, Acea strengthened its engagement for the **promotion of the culture of equal opportunity, developing further instruments for management and enhancement of the diversity present in the company.** For this, the company defined, in keeping with the principles expressed in the *Code of Ethics*, a **Charter for management of diversity**, approved in November by a Resolution of the Board of Directors.

The Charter aims to develop **understanding and appreciation of the differences** present in the company (of gender, sexual orientation, ethnicity, ability, and other) and promote the

**creation of an inclusive work environment,** favouring the expression of individual potential.

In order to make the objectives stated in the Charter operational, the company has established a **Diversity Committee**, which reports to the President of Acea and is composed of employees representing the different functions and company areas, and of competencies related to specific projects.

In November 2014, in conjunction with the United Nations *International Day for the Elimination of Violence Against Women*, Acea **organized the event "Mai più" (Never again)**, as a **'personal contribution by the company to the struggle against all forms of discrimination, disparity and abuse.** In preparation for the event, the company invited its employees to share their own thoughts and concrete proposals on the theme, which were published on the company intranet.

<sup>82</sup> Article 2112 of the Italian Civil Code and Article 47 of Italian Law No. 428/90 and subsequent amendments further to Italian Legislative Decree No. 276/2003.

<sup>83</sup> Italian Law No. 68/99.

Acea also supported the 12<sup>th</sup> **International Day against female genital mutilation**, promoted by the Department of Equal Opportunity of the Presidency of the Italian Council of Ministers (see also *Internal communications*). Finally, the company took part in the initiative

**Promoting Gender Balance in Decision Making**, again promoted by the Department of Equal Opportunity, as well as being linked with six-month Italian presidency of the Council of the European Union. The event presented the first results of the **European project Women**

**Mean Business and Economic Growth**, and served to advance the debate on the topic of the representation of women in decision-making positions. Catia Tomasetti, President of Acea SpA, and Paola Profeta, Board Director, participated in the event as presenters.

## THE PRESENCE OF WOMEN IN ACEA

### REPORT BOUNDARY

The information and data shown in *The presence of women in Acea* involve: Acea SpA, Acea Distribuzione, Acea Illuminazione Pubblica, Acea Reti e Servizi Energetici, Acea Energia, Acea Produzione, Acea8cento, Acea Ato 2, Acea Ato 5, LaboratoRI, Acea Gori Servizi, Crea Gestioni, Gesesa, Sogea, Lunigiana, Solemme, A.R.I.A., SAO, Aquaser, Kyklos, Innovazione Sostenibilità Ambientale, and since 2014, S.A.MA.CE.

Relative to the preceding year, the data on the **presence of women in Acea** show slight variations in the incidence of women among executives, managers and degree graduates in the overall structures of the Group, which **taken as a whole have not changed the gender balance of the workforce**.

However, the data show **an increasing trend for the presence of women in the governing bodies**, illustrating the current attention to the theme of gender representation, stimulated in part by the expectations of Italy's legislative institutions.

2014 was a special year in this regard: **for the first time in the history of the company, a woman was appointed as President of Acea SpA** (Catia Tomasetti), and **a majority of the Board of Directors were women** (4 out of 7 members, equivalent to 57%), making the company an outstanding case in gender representation, exceeding even the expectations of the legislative bodies.

The incidence of women follows in similar manner in the Board committees: for the Control and Risks Committee, the Transactions with Related Parties Committee, the Appointments and Remuneration

Committee, the Ethics Committee – in all cases the incumbent President is a woman director. Further, for the committees required by the Corporate Governance Code (Control and Risks, Appointments and Remuneration) the incumbent president is also the youngest among the various female committee members.

For gender data on **training and remuneration**, see the specific sections of the current report.

TABLE 55 – WOMEN IN ACEA (2012-2014)

	2012	2013	2014
Women in the total workforce	22.9%	23.2%	23.1%
Women among the members of corporate government bodies (*)	5.5%	6.7%	9.0%
Women among the total of executives	18.6%	19.0%	18.0%
Women among the total of managers	27.9%	28.8%	28.5%
Women graduates among the total of university graduates	40.8%	42.1%	41.6%

(\*) Boards of Directors, Boards of Statutory Auditors and Supervisory Bodies of the companies included in the reporting boundary.

## WORKING HOURS AND ABSENCES

### REPORT BOUNDARY

The information and data shown in Working hours and absences concern: Acea SpA, Acea Distribuzione, Acea Illuminazione Pubblica, Acea Reti e Servizi Energetici, Acea Ato 2, Acea Ato 5, LaboratoRI, Acea8cento, Acea Energia and Acea Produzione.

The **total hours worked** in 2014 **increased slightly** over the previous year (see Table 56); the incidence of overtime hours in total hours worked, both for men and women, increased very slightly, reaching 1.9% for women (compared to 1.7% in 2013) and 7% for men (6.9% in 2013).

TABLE 56- ACEA EMPLOYEES: HOURS WORKED (2012-2014)

(HOURS)	2012			2013			2014		
	MEN	WOMEN	TOTAL	MEN	WOMEN	TOTAL	MEN	WOMEN	TOTAL
Ordinary hours worked	5,395,439	1,444,928	6,840,367	5,092,460	1,423,769	6,516,228	5,208,923	1,467,127	6,676,050
Overtime worked	412,467	27,033	439,500	379,724	24,049	403,773	393,345	28,039	421,384
<b>Total hours worked</b>	<b>5,807,906</b>	<b>1,471,961</b>	<b>7,279,867</b>	<b>5,472,184</b>	<b>1,447,817</b>	<b>6,920,001</b>	<b>5,602,268</b>	<b>1,495,166</b>	<b>7,097,434</b>

In 2014, **the total number of days of absence decreased** compared to the previous two-year period. Absences due to leave (for reasons of study, health, mourning and for generic reasons) and for illness increased, while absences for time off, strikes, maternity/paternity and “other reasons” decreased.

**TABLE 57- ACEA EMPLOYEES: DAYS ABSENT (2012-2014)**

	2012			2013			2014		
	MEN	WOMEN	TOTAL	MEN	WOMEN	TOTAL	MEN	WOMEN	TOTAL
Absences due to illness	23,259	11,029	<b>34,288</b>	26,662	12,095	<b>38,757</b>	25,155	10,679	<b>38,834</b>
Absences due to maternity leave (pregnancy, post-partum)/paternity leave	800	12,320	<b>13,120</b>	983	13,834	<b>14,817</b>	782	12,993	<b>13,775</b>
Absences due to strike action	1,407	397	<b>1,804</b>	566	134	<b>700</b>	481	109	<b>590</b>
Trade union leave	5,761	1,052	<b>6,813</b>	5,533	1,081	<b>6,614</b>	5,511	1,014	<b>6,525</b>
Other leaves of absence	2,239	1,982	<b>4,221</b>	3,868	2,232	<b>6,100</b>	1,282	555	<b>1,837</b>
Various leaves (for study, health, mourning, generic reasons)	11,383	5,107	<b>16,490</b>	11,203	5,134	<b>16,337</b>	12,360	6,369	<b>18,729</b>
Other reasons (*)	2,334	836	<b>3,170</b>	778	67	<b>845</b>	515	38	<b>553</b>
<b>Total days of absence (excluding holiday entitlement, accident &amp; injury)</b>	<b>47,183</b>	<b>32,722</b>	<b>79,906</b>	<b>49,593</b>	<b>34,577</b>	<b>84,170</b>	<b>46,086</b>	<b>31,757</b>	<b>77,843</b>

(\*) The “other reasons” entry mainly represents “secondment” of personnel, and also includes leaves for “public appointments”, “giving evidence”, and hydrothermal health treatments

Employees can use a number of types of leaves. The company also offers **forms of flexible work**, such as the use of part-time hours, which in 2014 concerned **2.4% of employees**. Another potential arrangement is **trust-based working hours**, available to managers and 3<sup>rd</sup> rank white-

collar employees, which enables “personalised” management of work time, providing that the employee services envisaged by the contract are secured. Finally, there is also **flexitime** for starting work (between 7:45-9:00) and ending the day (16:10-17:20), possible for 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> level

white-collar workers. In conclusion, these latter groups, together with blue-collar workers, can also use arrangements for a **monthly number of hours of leave**, to be recovered within the given month.

## SAFEGUARDING HEALTH AND SAFETY IN THE WORKPLACE

Following the adoption of the new accounting principles (IFRS10 and IFRS11), at 01/01/2014, the consolidation boundary of the Group has changed, and the reporting boundary for the current section conforms to this new

development. To ensure the uniformity of information for the three years under examination, the data for the 2012-2013 period have been restated.

### REPORT BOUNDARY

The information and data shown in *Safeguarding health and safety in the workplace* involve: Acea SpA, Acea Reti e Servizi Energetici, Acea Distribuzione, Acea Illuminazione Pubblica, Acea Ato 2, Acea Ato 5, LaboratoRI, Acea Energia, Acea Produzione, Umbria Energy, Acea8cento, Crea Gestioni, Gesesa, Aquasar, Kyklos, Solemme, A.R.I.A., SAO Innovazione Sostenibilità Ambientale (ISA), Ecogena, and since 2014, S.A.MA.CE.

In compliance with current legislation (Italian Legislative Decree No. 81/08 as amended and supplemented), **each Group company is directly responsible for managing safety**. The **co-ordination and policy** activities are the responsibility of **Acea SpA**, which, via the **Safety and Protection Division**, has the task of monitoring the companies with regard to application of the guidelines, the policies issued and their alignment with current legislation. Most companies of the Group have implemented **Certified occupational health and safety management systems** (also see *Corporate Identity*, under *Corporate Governance and Management Systems*). In 2014, to ensure maximum intra-group harmonization in matters of health and safety, a single certification body was identified for the companies that adhere to British Standard OHSAS 18001:2007. The Acea SpA Security and Protection Division assists group companies implementing the certification procedure, through specific support activities,

among these: evaluations, audits, drafting of health and safety procedures, and checking operational instructions. In addition, Acea SpA and Acea Distribuzione have achieved greater control over IT security, through adoption of detailed management systems (risk-based profiles, training, personal protective equipment), which include provisions for issuance of alerts.

With regard to the processes for assessing **workplace risks** and the **monitoring of accidents**, each company takes steps according to the current legislation, drawing up the **Risk Assessment Document (DVR)**. Following these independent activities, **the Safety and Protection Division**, annually and **at centralised level, draws up the accident report** for the Group companies, for purposes of providing constructive contributions towards the prevention of employment-related risks. The procedure used to analyse accidents complies

with the **Guidelines for Classifying Accidents**, drafted by Federutilità, and complies with the **UNI 7249/95 standard** and to INAIL and ESAW (European Statistics of Accidents at Work) indications.

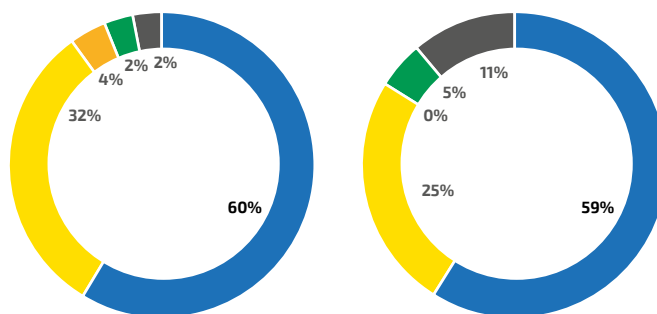
In 2014 **the data on accidents revealed lower values than for the previous two years**: 63 accidents in the workplace were reported during the year, while 34 occurred while travelling (i.e., while commuting between home and workplace), totalling **3,954 days of absence**. **Both the lost time frequency and severity indices recorded substantial decreases over the three-year period**. With regard to the breakdown of accidents by **gender**, excluding those sustained while travelling, 2014 saw **59 injuries** (94% of the total) involving male employees, mainly blue-collar workers, leading to total absences of **2,036 days**. There were **4 injuries** (6% of total) involving female workers, all white-collar/administrative cases, which led to **97 days of absence**.

Observing **the breakdown of accidents by company** grouped for business area, in general we can see a **decrease in accidents** with respect to 2013 **in the Water, Networks and Energy areas, and an increase in the Environment**

**and Corporate and services areas** (see chart 28). The highest number of accidents occurred in Acea Ato 2 (34 accidents) and Acea Distribuzione (16 accidents). These are two of the largest Group companies, operating in areas involving work that

is inherently exposed to risk. Advisory meetings with **Workers' Safety Representatives (RLS)** were held regularly, thereby ensuring the involvement of the workers, in accordance Article 35 of Italian Legislative Decree No. 81/08.

**CHART 28 – WORKPLACE ACCIDENTS PER BUSINESS AND GEOGRAPHIC AREAS (2013-2014)**

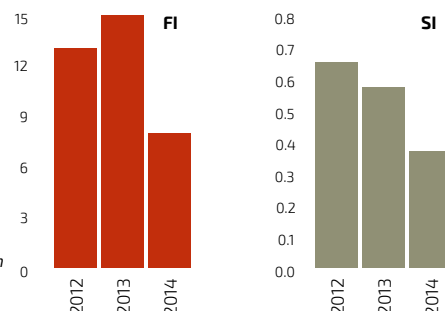


BUSINESS AREA	2013 ACCIDENTS (NO.)	2014 ACCIDENTS (NO.)
Water (Lazio, Molise and Campania)	66	37
Networks (Lazio)	35	16
Energy (Lazio, Abruzzo and Umbria)	4	0
Environmental services (Lazio, Umbria and Tuscany)	2	3
Corporate and services (Lazio)	3	7

**Note:** The water sector includes four companies, the networks area has three, the energy area seven, the environment five and the corporate and services area has two. In 2014 the companies Acea Reti and Servizi Energetici ed Illuminazione Pubblica (networks areas), the companies A.R.I.A., Aquaser, Kyklos, Solemme, ISA and S.A.MA.CE. (environment area) and all the energy area did not report any accidents. The data shown in the table does not include accidents while travelling.

**CHART 29 – WORKPLACE ACCIDENTS AND INDICES OF FREQUENCY AND SEVERITY (2012-2014)**

	2012	2013	2014
Accidents (no.)	103	110	63
Total days of absence (*)	5,104	4,189	2,786
Hours worked (**)	7,872,676	7,346,535	7,584,284
<b>Frequency index (FI) (No. accidents x 1M work hours)</b>	<b>13.08</b>	<b>14.97</b>	<b>8.31</b>
<b>Severity index (SI) (days absence x 1000 work hours)</b>	<b>0.65</b>	<b>0.57</b>	<b>0.37</b>



(\*) The data include days of absence related to prosecutions initiated in previous years, and reopening of accidents occurring in previous years.

(\*\*) For some companies, the data on hours worked for the month of December involves estimations.

Acea sets objectives beyond the legislated requirements for **raising the awareness of personnel with regard to safety aspects**. This is accomplished by the **disclosure of procedures**, documents and legislative updates **on the company intranet** and the **provision of specific training courses** (see also *Internal communications* and *Training*

*and development of human resources*). For this purpose, over the course of the year, the company intranet offers a section titled "Quality, Environment, Safety and Energy", which includes material and documents relevant to safety in the workplace.

In 2014, Acea also joined the European initiative **Together for the prevention and management of work-related stress**, initiated by the European Agency for Safety and Health at Work (see in-depth box). Within this activity, Acea participated in the campaign "**Safe and secure work environment**", which continues throughout 2014-2015.

**ACEA'S UNDERTAKING IN THE PREVENTION OF WORK-RELATED STRESS**

In 2014, the company Acea Energia participated in the European campaign **Safe and Secure Work Environment**, for the promotion of organizational well-being, on behalf of the Acea Group.

The aim of the project is to increase knowledge of the risks connected to work-related stress and propose preventive actions for the phenomenon. One of the results has been the adoption of an **innovative path for evaluation of the exposure of the human resources to psychosocial risks**, with the involvement of 250 Acea Energia personnel.

Acea Energia presented the results of the study at the congress, **Good Practices for Organizational Well-Being**, held at Rome in October 2014.

## HEALTH MONITORING

### REPORT BOUNDARY

The information and data presented in the section *Health monitoring* refer to: Acea SpA, Acea Reti e Servizi Energetici, Acea Distribuzione, Acea Ato 2, LaboratoRI, Acea Energia, Acea Produzione, Acea8cento, Aquaser, Solemme, A.R.I.A., SAO, Crea Gestioni and Ecogena.

Acea manages the **monitoring of health conditions** through an **internal structure**, operating in compliance with current legislation (Article 41 of Italian Legislative Decree No. 81/08) and **cooperating with outside experts**. In particular, the health of personnel is monitored with the assistance of formally-appointed qualified professionals, who support the employees through performing the following types of check-ups:

- pre-employment;
- preventive or following changes in duties;
- periodic, on the basis of the risk assessment plan;
- upon the request of the worker;
- in the event of termination of the employment relationship, if envisaged by legislation;

- prior to resuming work, following absence due to health reasons for a period longer than sixty consecutive days.

Furthermore, workers exposed to specific risks are guaranteed a **targeted plan of medical check-ups**.

As part of the activities for safeguarding the psychological and physical health of workers, qualified **doctors cooperate** with the **employers** and the **Protection and Prevention Service Officers** to **assess the risks** to which personnel are exposed. The identification of these risks is a **necessary step in drawing up the relative health-monitoring plan**.

During 2014, **2,045 check-ups were carried out**; the relative costs<sup>84</sup> amounted to around

**210,000 euros**.

The company also maintains **First Aid medical centres**, which ensure company employees and visitors first aid in the event of ailments not requiring hospital treatment.

Monitoring activities also include **preventive management of occupational illnesses**, potentially contracted through work activities, due to prolonged exposure to risks present in the environment. Responsible doctors are charged with defining appropriate health protocols, responding to the risk profiles arising from the various work activities. These doctors are also charged with monitoring potential harms to worker health. In 2014, there were no reports of suspected occupational illnesses at Acea.

## HUMAN RESOURCE EMPOWERMENT AND COMMUNICATIONS

### REPORT BOUNDARY

The information and data presented in *Human Resource Empowerment and Communications* concern: Acea SpA, Acea Distribuzione, Acea Illuminazione Pubblica, Acea Reti e Servizi Energetici, Acea Ato 2, Acea Ato 5, Crea Gestioni, GE.SE.SA, LaboratoRI, Acea8cento, Acea Energia and Acea Produzione, Acea8cento, Aquaser, Kyklos, Solemme, A.R.I.A., SAO, Innovazione Sostenibilità Ambientale (ISA), and since 2014, SA.MA.CE.

Acea recognises that the capital of knowledge and expertise embedded in the human resources is a fundamental asset. The company has thus developed a **Human Resources Management System** to enhance the contribution of each individual in reaching the company objectives. In 2014, Acea set a new objective of implementing innovation throughout the organization, with a view to continuous improvement. The intention of innovation is to modify the management, operational and information systems of the Group, and to **act on the organizational culture itself**. For this, the company launched the **ACEAZPUNTOZERO Programme**. Within 2016, this programme will permit **the integrated management of all work processes**, thanks in part to the use of

innovative mobile technologies (see *Institutions and the Company* and box *Corporate Identity*, under *Group Profile*). The 'Punto Zero' programme applies a newly introduced **Workforce Management Project (WFM)** in **Acea Ato 2, Acea Distribuzione and Acea Illuminazione Pubblica**. The project implements IT solutions that integrate with the existing management systems, permitting their continuous evolution. It creates process efficiency, and encourages the personnel to rethink their individual activities in the key of innovation (also see *Customers and Community*).

To address the broad challenges of enhancing organizational culture, Acea adopts an open, organic model of change management, which

**promotes the active participation of human resources.**

### REMUNERATION

Employee **salaries** (excluding executives and top management) are established in accordance with the **National Collective Labour Agreements (CCNLs)**. The data for **average gross remuneration per person** during 2014 reveal increases over 2013, for all categories: 4.5% for managers, 3.4% for white-collar and 2.7% for blue-collar workers.

**Overall average gross remuneration per person increased by 3.5% compared to the previous year and amounted to 41.5 million euros**. With inclusion of executives, the average reaches 44,000 euros, an increase of 4% compared to 2013.

TABLE 58 – AVERAGE GROSS REMUNERATION BY ROLE (2013-2014)

(€'000s)	MANAGERS	% CHANGE	WHITE-COLLARS	% CHANGE	BLUE-COLLARS	% CHANGE	TOTAL	% CHANGE
2013	65.9		38.3		37		40.1	
2014	68.9	4.5%	39.6	3.4%	38	2.7%	41.5	3.5%

84 The costs relating to periodic and pre-employment check-ups refer to the reporting boundaries for Health monitoring.

Analysis in terms of the **ratio of 'base salary' to 'gross effective remuneration'** - thus considering the "fixed" versus "additional" elements in the individual's total salary - reveals that **in 2014 the figures for this ratio were 91.5% for female staff and 80% for male staff**. The difference between the genders can be explained by the fact that the activities compensated by high added remuneration, such as on-call, shift work, allowances, overtime, are often covered by male workers (for example: work carried out by emergency technical services workers, involving series of shifts to cover 24-hour periods).

In 2014, the **Shareholders' Meeting established new determinations of compensation for the members of the Board of Directors**, as 05/06/2014. Such compensation concerns annual remuneration, remuneration for participation in any Board

committees, and compensation for fulfilling the roles of President and Chief Executive Officer. The direction from the shareholders resulted in a strong **reduction of remuneration** for all the Board members, **limitation of the compensation** receivable for participation in internal Committees, and the establishment of **new performance objectives linked to the variable part** of the remuneration of the Chief Executive Officer (see also the *Remuneration Report* on the Acea website<sup>85</sup>).

## DEFINED-CONTRIBUTION PENSION FUNDS

The main supplementary pension funds for Acea employees are **Previndai** and **Pegaso**. The Previndai fund is for executives, while Pegaso serves non-executive human resources employed under the CCNLs stipulated under the aegis of Federutility (Federation of Public Utility Companies).

The Pegaso Fund was established by Federutility and by the trade unions Filcem-Cgil, Femca, Flaai-Cisl, and Uilcem-Uil and is jointly managed by these same parties. At 2014, there were 2,517 group **employees<sup>86</sup> belonging to the fund**, substantially in line with 2013 (2,533 employees). During the year, **Acea transferred around 4.4 million euros in employee leaving indemnities (TFR) to the Pegaso fund and paid 1.24 million euros as a supplementary company contribution**. Analysing the distribution of Acea's Pegaso fund population by gender reveals **an incidence of 78.5% for men and 21.5% for women** (in 2013, respectively 76.8% and 23.2%). The most numerous age class in the Fund is the 45 to 60 group, equivalent to 64.5% of the total members.

TABLE 59 – ACEA EMPLOYEES – PEGASO FUND: GENDER AND AGE CLASSES (2014)

	MEN	WOMEN	TOTAL
≤ 25 years	1	0	1
> 25 years and ≤ 30 years	28	12	40
> 30 years and ≤ 35 years	99	36	135
> 35 years and ≤ 40 years	182	50	232
> 40 years and ≤ 45 years	253	75	328
> 45 years and ≤ 50 years	427	133	560
> 50 years and ≤ 55 years	413	120	533
> 55 years and ≤ 60 years	443	88	531
>61 years	129	28	157
<b>Total</b>	<b>1,975</b>	<b>542</b>	<b>2,517</b>

TABLE 60– ACEA EMPLOYEES – PEGASO FUND: GRADE (2014)

### (NUMBER)

White-collar workers	1,576
Blue-collar workers	712
Managers	229
<b>Total</b>	<b>2,517</b>

The net Pegaso fund assets designated for benefits reached 777 million euros in 2014 (666 million euros in 2013), an increase of

roughly 16.6%. The **Balanced, Dynamic** and **Guaranteed** segments all closed positive, up respectively 8.16%, 10.8% and 1.43%. The return

on leaving indemnities (TFR), considered as benchmark, amounted to 1.33% in 2014.

TABLE 61 – ANNUAL RETURN ON PEGASO FUND UNITS AT 31/12/2014

INVESTMENT TYPE	PEGASO FUND RETURN
Guaranteed	1.43%
Balanced	8.16%
Dynamic	10.80%

Source: Pegaso 2014

85 The annual Remuneration Report (Relazione sulla Remunerazione), prepared by independent observers, is available from the company website, section "Azionisti, Assemblée degli Azionisti" (Shareholders, Shareholders' meeting).

86 For the companies: Acea SpA, Acea8cento, Acea Ato 2, Acea Ato 5, Acea Distribuzione, Acea Illuminazione Pubblica, Acea Reti e Servizi Energetici, Acea Energia, Acea Produzione, Laboratorio, Crea Gestioni, Sogea, Gesesa, Solemme, Acea Gori Servizi, A.R.I.A, Aquaser, SAO.

## PEGASO FUND PAYMENTS TO ACEA GROUP PERSONNEL

In the first **15 years of the Pegaso Fund**, the payments to ACEA employees (redemptions, pension payments, advance payments and transfers) reached a total value of **16.5 million euros**, of which **2.5 million euros in 2014 alone**, the year registering the highest maximum payment. Analysing the values for 2014, there were advance payments of 1.8 million euros, in response to 186 requests: these are largely motivated by personal needs, as well as for medical expenses, and purchase or renovation of a first home for the employee or their children, all of which are considered legitimate grounds for request. There were also 600,000 euros paid for redemptions, in response to 27 requests.

At 31/12/2014 the **total assets managed by the Fund** on behalf of the Acea members amount to roughly **71 million euros**. An analysis of asset allocation among the various units of the Pegaso Fund shows that **roughly 82% of Acea members have chosen the Balanced profile**, meaning an investment portfolio consisting of roughly 30% debt and 70% share components.

The Italian "integrative", or supplementary pension regime, was subject to important changes under the so-called "Stability Law" of 2015. One of the important changes is the possibility of receiving the employee leaving indemnity (TFR) in the pay envelope for the period from March 2015 to June 2018, rather than the previous standard practice of depositing of the TFR in a pension fund, or maintaining it within the company. In addition there were also a series of tax increases, regarding: supplementary pension payments (tax rate rising from 11% to 20%), the assessment of the TFR (rising from 11% to 17%), and in taxation of the TFR in the pay envelope (changing from separate taxation to ordinary progressive personal income taxation, IRPEF).

Source: Prepared with assistance from Andrea Mariani, Director-General, Pegaso Fund

## INCENTIVE SYSTEMS AND STAFF EVALUATION

The objective of Acea's **short-term incentive system** is to **compensate employees with economic compensation in measure of their achievement of quality performance, and linked to behaviours in keeping with the Group's leadership model**.

The incentive system applied to executives and managers is related to Acea's Management by Objectives (MBO), and involves **variable compensation**, calculated proportionally to the degree of **achievement of individual, company, area and group objectives**, as defined at year opening, and to the **measurement of behaviours** (see below).

For **all personnel** with grades of manager, white-collar and blue-collar worker, and whether under part-time, fixed-term, apprenticeship or induction contract, the reward system serves as a tool for sharing in company results, in the form of a **"results bonus"**. The bonus is distributed annually, proportional to the grade and hours worked, and calculated based on indicators of Profitability, Productivity, Efficiency and Quality, both as performed and perceived (an indicator of customer satisfaction is also considered). In 2014, the criteria for distribution of the results bonus were redefined according to principles of merit, following agreement with the trade unions. This means that, beginning in 2015, the Acea group can utilise a more effective system for evaluation of the contribution of the individual human resources, (see also *Industrial relations*). In Acea8cento, the Group company responsible for telephone contact with clients, the reward system also considers quality indicators measured by means of "mystery calling" - meaning simulated client calls to the Acea call centres.

For the Chief Executive Officer and other senior executives with responsibilities for long-term company objectives, there are **mid to long-term incentive systems**. Thus, in addition to the incentives as above, under Management by Objectives, there is also a **Long-Term Incentive Plan (LTIP)**. The current LTIP is effective for **2013-2015**. The plan provides incentives that are designed relative to the individual's annual

gross pay (RAL). Compensation depends on the degree of achievement of financial-economic objectives, established by the Nominations and Remuneration Committee, and of objectives **involving Acea share value** (i.e. *Total Shareholder Return* - a measure of changing share value and trends compared to a basket of comparable companies).

There is also provision for other employee **benefits**, such as the so-called "extra month's" pay, and meal vouchers. There is a discount on energy rates (for employees recruited before 09/07/1996), as well as favourable rates and services at the Staff Recreational Association (CRA). There is supplementary health insurance, and the provisions of the Previdai Fund for executives and the supplementary pension fund for all other resources. Executives may also obtain benefits such as the use of a company car or reimbursement of fuel expenses.

At 31/12/2014 the amount of the balance sheet liabilities for severance indemnities (TFR) and other defined-benefit plans amounted to 117.4 million euros, an increase of 11.1 million euros over 2013. The absolute-figures variation derives principally from greater risk provisions for the TFR, of roughly 69.1 million euros, and from tariff conventions reserved for personnel, totalling 36 million euros.

The Human Resources Management System, as indicated above, provides **individual evaluation processes (Performance Management)** for executives and middle management (equivalent to 10% of the total workforce). The evaluation processes measure the **performance** delivered, meaning the individual's achievement of assigned objectives, and **leadership** - meaning the capacity to guide other personnel and act in favour of change, in keeping with the relevant value systems.

The process functions in two **stages**. The **first** consists of shared evaluation of **performance** and **leadership**, with the individual's immediate supervisor, who determines the positioning of each evaluated person in a matrix. The **second stage**, conducted at an internal

round table, serves to better calibrate the individual evaluations, ensuring **uniformity and comparability** in the judgement criteria.

For the release of the bonus involved, the MBO mechanisms provide a system of "access gates", consisting of the Group objectives: the achievement or non-achievement of these objectives impacts on the compensation in different manner depending on the organizational level of the human resource evaluated.

The evaluation of performance and leadership is instrumental in identifying the needs for **training and development programmes**, as well as suitable incentive and remuneration systems. Where managers require support for the implementation of new evaluation processes, they can dispose of the following tools:

- **The Performance and Leadership Manual** - which provides practical knowledge and processes to strengthen individual's ability to meet their responsibilities.
- **The Leadership Model** - The model describes the key elements necessary for interpreting as fully as possible the Acea mission, values and the skills that the manager must possess and further develop to make the most of the human capital. This model considers two macro-areas of values: i) the principles necessary to **manage the business, favouring change and competitiveness of the Group**; and ii) the fundamental values for guiding the personnel, recognizing their skills and responsibilities. Both areas are founded on the principle "*act with integrity and fairness*".
- **The Acea Group Information System**, which includes aspects in support of the Performance Management processes - The system assists those who conduct the evaluations to manage the processes independently, supporting a series of actions for assigning objectives, monitoring them, and dealing with questions of leadership.

In 2014, Acea extended the **evaluation model to the company population with non-managerial functions**, launching a **pilot project** that involved employees from different business areas.

The evaluation process will be fully operational in 2015, and has the following aims:

- to channel the energy of human resources towards actions and results that achieve the organizational strategy and values;
- to deepen the personnel's knowledge through an evaluation model that is standardized throughout all Group companies;
- to support and develop competencies and behaviours useful to the individual in their professional growth and motivation.

Acea has also launched **paths for enhancement and development of the talents** present in the Group. One of the actions is the **Walk In Progress project**, intended for young employees of the Group's companies. Over time, based on their aspirations, attitudes to change, experience and performance, younger employees can assume roles of increasing responsibility. The first stage in the broader project was the planning and offer of the **Master's in General Management of Multi-utilities**, a programme offered at the Scuola Superiore Sant'Anna at Pisa.

Acea also welcomes recruits from other companies, with the aims of favouring encounter and exchange among the companies and stimulating innovation through contrast and comparison. Acea Distribuzione has also joined the **Golden Energy Ecosystem Lab** research project, for integration of values and practices of sustainability in the culture of energy-sector companies, including work towards the design precise business models. Acea Distribuzione participates in the project through the contribution of two young engineers as members of the research team.

## TRAINING AND DEVELOPMENT OF HUMAN RESOURCES

### REPORT BOUNDARY

The information and data presented in *Training and development of the human resources* refer to Acea SpA, Acea Reti e Servizi Energetici, Acea Distribuzione, Acea Illuminazione Pubblica, Acea Ato 2, LaboratoRI, Acea Ato 5, Acea Energia and Acea Produzione, Acea8cento, Crea Gestioni, Gesesa, Aquaser, Innovazione Sostenibilità Ambientale (ISA), Kyklos, Solemme, A.R.I.A. and SAO.

Acea Group recognises that its competitiveness is tightly linked to the quality and **professionalism of the human capital**. **Training activities** for the improved qualification and professional growth of the resources are therefore a **strategic lever** for increasing the level of company performances, and consequently competitive ability.

Acea training activities are consistent with the company strategies and business plan. They permit the achievement of important objectives, such as **change in the organizational culture and development of personal skills**, through initiatives that focus on the acquisition and updating of specific competencies.

Acea SpA's **Human Resources and Organisation Division** coordinates the achievement of company training objectives, particular those of general character, and articulates the parent company's annual training plan. It **establishes policies, guidelines and tools** for the Group companies; it manages **managerial training** in a centralised manner, creating training courses addressing top and middle management; it constructs paths for **advanced training** with highly specialised content, organised with highly ranked partner universities; finally, it organises **transverse training**, on topics of common interest to all Group areas.

The **operating companies have independent responsibility for training in matters of security**, meaning for prevention of risks arising from technical-operational work. The responsibilities include assurance of conformity as

obligated under legislation in matters of training. The individual companies area also responsible for **technical-specialist training**, for acquisition of competencies and capacities in the business of reference. Both types of training are subsumed under the annual Group training plan, and complement the further training directed by the parent company.

The **training process** originates from the **analysis of the training needs**. Since 2014, this analysis has been carried out using the **PianetAcea IT platform**. PianetAcea permits definition of the **target training populations and the didactic contents**, the identification of the **training supplier**, and supports the **provision of support tools and training materials** suited to the course method. The training method can be: i) **traditional**, meaning in classroom, with face-to-face or "side-by-side" teaching; ii) **experiential**, favouring effective experience, potentially outside the workplace; or iii) **online**, in e-learning modes using the PianetAcea platform. The training concludes with the evaluation of the learner's level of satisfaction concerning the event organisation and teaching quality, and regular internal reporting on participation in training.

The company's membership in inter-professional bodies for continuing education is an additional instrument for increasing the skills of company resources.

In particular, the Group's core companies (Acea SpA, Acea Distribuzione, Acea Reti e Servizi

Energetici, Acea Ato 2, Acea Ato 5, LaboratoRI, Acea Energia, Acea Produzione) **belong to the FOR.TE Fund** (National Inter-Professional Joint Fund for Continuing Education in the Service Sector), which provides financing for development of employee competencies favouring company competitive capacities. In 2014, Acea Group completed the **Steps2** plan, financed by the FOR.TE Fund. With this support, it was possible to organize the training path **People at the Centre of Acea Group**, focusing on the Values and Leadership Models adopted by the Group (see detailed box). New financing was also obtained for the **Steps3** project, which will conclude in 2015. Steps3 continues the training for core resources, focusing on the Performance and Leadership Models. Moreover, the companies Acea SpA, Acea Distribuzione, Acea Ato 2, A.R.I.A., LaboratoRI and Acea Energia belong to Fondirigenti, which supports the training of executives. Some of the companies from the Environment area also belong to Fondimpresa, which supports training for technical personnel. For 2014-2015, Acea has obtained funding from Fondirigenti to present the **Drive & Change** plan, which offers two distinct training paths: Self Change and Safe Driving. Self Change is a leadership development path aimed at both the learning of new abilities and competencies and at refining capacities to recognise and correct ineffective behaviours. The objective of Safe Driving is to improve vehicle operation, subsequent to the principles introduced under Italian Decree Law No. 81/08.

### PEOPLE AT THE CENTRE OF ACEA GROUP

The training course **People at the Centre of Acea Group** is intended for the employees of all Group companies. The objective is to create sharing of company values and management systems, and in 2014 the project reached **over 350 persons**.

The programme consists of **two days of experience-based training** in "outdoor" mode, during which the personnel can come into direct contact with the sense of company values, and grow feelings of belonging and perceptions of shared identity, through relational dynamics between the persons involved.



In 2014, in addition to the training projects supported by inter-professional bodies, there were also course on topics of interest across the Group, such as that for **advanced training in legislation on tenders, on legislation for work, business economics or waste management** (SISTR). The company also launched a training course aimed at favouring the development of Group culture, called Conosci Acea? (Have you met Acea?) (see in-depth box).

**HAVE YOU MET ACEA?**

**Have you met Acea?** Is an inter-company training project, which in 2014 involved over 150 personnel, aimed at growing the knowledge of Group activities and the understanding of company processes. The course included organised visits to selected production facilities, guided by the site supervisors, among these: the Esquilino Primary Transformer, the Peschiera Aqueduct Source, the EUR Water Centre, the Ostia Wastewater Treatment Centre, the San Vittore Waste-to-Energy Plant, the Salisano Electrical Centre and the Water and Electrical Control Rooms. The in-person training plan is followed by a second stage, for development of an e-learning course for the entire company workforce, to be provided on the PianetAcea platform in 2015.

With the support of the PianetAcea multimedia platform, the group has also provided online courses on normative matters. These topics include: Administrative Responsibility of Public Agencies (Italian Decree Law 231/01), the *Code on Privacy* (Decree Law 196/03) and the *Acea Group Code of Ethics*. As support for these activities, Acea Distribuzione has developed “mobile” training modules on the *Code on Privacy* and *Code of Ethics*, for blue-collar workers that would otherwise be unable to participate in on-line training.

The communication of the Group’s ethical values and legal framework takes place through publications on the company intranet portal and website. All newly recruited resources take part in

modules dedicated to the company mission and *Code of Ethics* as part of their entry training. Further training activities over the current period have concerned:

- **Safety** (Workplace Safety Representatives, First Aid personnel, Fire-prevention Service personnel, etc.) and related **management systems;**
- **Integrated data management for Quality, Environment, Safety and Energy;**
- Knowledge of **jobsite management;**
- **Continuous improvement** (specific for Acea Distribuzione).

In 2014, **443 traditional and experiential training courses** were provided, in **1,008 editions**, with **3,445 resources trained**, of which **24.4% were women**. The **e-learning platform** provided a further **eight courses**, with participation of **1,266 employees**, of which **27.2% were women**. Overall, this represents a **total of 81,898 hours of training**, a **contraction of 6.9%** compared to the 87,983 hours provided in 2013. Out of the total courses named above, **classroom and experiential learning** amounted to **79,022 hours** and **e-training** reached **2,876 hours**.

The overall training per employee<sup>87</sup> amounted to 17.3 hours; of this, classroom and experiential hours were 22.9 and those in e-learning were 2.3.

**TABLE 62 – COURSES AND COSTS OF TRADITIONAL AND EXPERIENTIAL TRAINING (2013-2014)**

COURSE TYPE	COURSE (NO.)		EDITIONS (NO.)		TRAINING (HOURS)	COSTS (EUROS)	
	2013	2014	2013	2014	2014	2013	2014
Advanced training	8	9	59	9	6,738	103,853	103,672
IT	26	41	91	96	4,674	28,132	8,319
Induction of new recruits (**)	11	6	15	7	252	0	2,080
Languages	5	4	34	8	1,544	50,000	8,887
Technical-specialist	197	172	419	317	19,194	145,021	163,839
Managerial	15	26	31	91	15,612	737,576	648,567
Administrative-managerial	45	14	53	46	1,847	53,727	11,140
Safety	196	171	415	434	29,161	186,067	180,096
<b>Total</b>	<b>503</b>	<b>443</b>	<b>1,117</b>	<b>1,008</b>	<b>79,022</b>	<b>1,304,376</b>	<b>1,126,600</b>

(\*) New recruit and administrative-operational training are carried out primarily through teaching resources available within the Group.

N.B. The data referring to the companies SAO, A.R.I.A. and LaboratoRI are estimated, as are data concerning gender incidence in training.

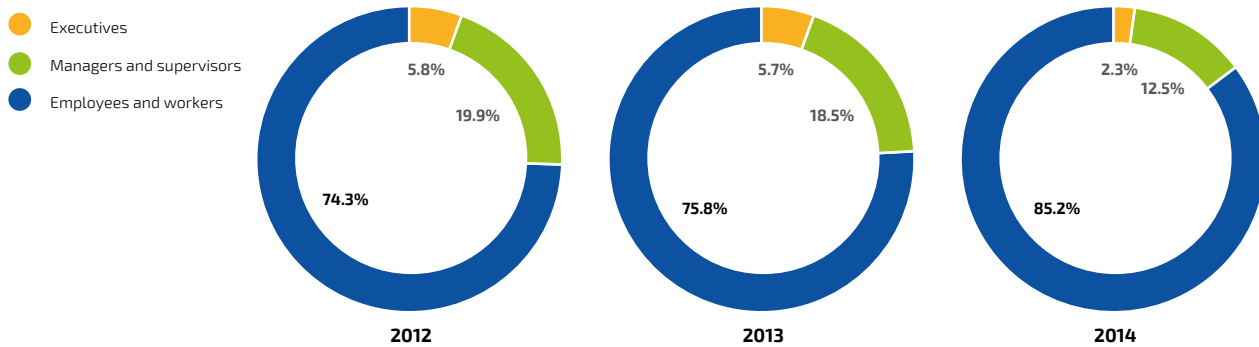
**TABLE 63 – COURSES AND COSTS OF TRAINING PROVIDED VIA THE E-LEARNING PLATFORM (2013-2014)**

COURSE TYPE	COURSE (NO.)		TRAINING (HOURS)	COSTS (EURO)	
	2013	2014	2014	2013	2014
Advanced training	1	1	341	15,000	400
Managerial	1	1	74	5,000	400
Safety	2	2	475	30,000	800
Code on Privacy (Dec. Law 196/03)	1	1	331	7,000	400
Code of Ethics	1	1	251	7,000	400
Administrative liability (Dec. Law 231/01)	2	1	161	7,000	400
Unbundling	0	1	1,243	0	9,300
<b>Total</b>	<b>8</b>	<b>8</b>	<b>2,876</b>	<b>71,000</b>	<b>12,100</b>

In 2014, the costs for providing all Acea training courses, excluding didactic planning and equipping the course locations, amounted to **1,138,700 euros** (see Tables 62 and 63 and Chart 30).

87 The indicator is constructed from the ratio of the number of hours attended (81,898 in 2014) to the total number of participants (4,721 in 2014). The figure concerning employees trained is higher than the workforce within the reporting boundaries (4,682), considering that those who participate in e-learning courses can also participate in traditional and experiential training.

CHART 30 – TRAINING HOURS PER EMPLOYEE ROLE (2012-2014)



NB The hours of training by role for the companies SAO and A.R.I.A. are estimated.

Acea further increases the access to professional development by providing full or partial financing in support of the participation of its personnel in university master's programmes. In the current year, LaboratoRI provided financing for the participation of three employees in master's programmes for *Environmental Technologies* and *Control and Management and Maintenance of Ecological Systems*. In a similar vein, Acea Energia provides financing to ensure staff participation in courses and seminars organised by other leading corporations in the international energy sector.

## COLLABORATION WITH UNIVERSITIES AND HIGH SCHOOLS

Acea develops **partnerships and collaboration with universities**, takes part in research activities, makes itself available for **encounters between companies and students**, and enters into **agreements** for the promotion of university and high-school training workshops. The Group is also active at the post-bachelor's level, through provision of staff to support masters-level teaching programmes (see sections *Government institutions and the Company* and *Environmental Issues*).

As part of the 2014 programme of cooperation with universities and the higher education sphere, Acea personnel met with recent graduates and young students, offering brief individual consultations to assist them in orientating their current studies, or to complement those completed.

The main initiatives of the current year were:

- **The 18<sup>th</sup> annual Luiss University Career Day: Youth and the Labour Market** – Luiss Career Day favours the encounter between demand and supply of labour, providing the students with the tools they need to mesh the knowledge from their university programmes with the real opportunities of the labour market.
- **HR Community Academy Talent Days: Project 'Orientation to Work'** – This is a project geared for youths age 16 to 25, near the end of their high school, university or graduate programme. The project provides “laboratory-classes” for orientation and training, involving

in-depth meetings with companies invited as “guest for the day”. The programme promotes an inclusive professional culture, transmitting the message that “*all of us have hidden talents*”. Acea participated in the initiative through two days of orientation for the children of Group personnel who are members of the HR Network Community, a business community focused on human resource topics.

In addition, Acea participated as a well-informed company in numerous organised encounters between the university and government spheres, in which the company described its business areas.

Acea Distribuzione continued its cooperation with the University of Tor Vergata for the **HRO research project** (High Reliability Organization), offering its experience to students in the matters of leadership monitoring and company cultures of continuous improvement. Acea Distribuzione also provided instruction at the Management Institute of Scuola Superiore Sant'Anna of Pisa, and at the University of Tor Vergata, in both cases on topics of personnel evaluation and managing change. Acea Ato 5 continued its cooperation with the University of Cassino and the leading industrial actors of the surrounding region in the **UniClamOrienta placement project**, organised to orient youth towards the working sphere.

During 2014, Acea also supported the offer a number of training projects and university masters' and post-degree programmes through its own financial and professional contributions, in the form of teaching, offers of work experience, tutoring, etc. Such support concerned:

- the **Masters' course in Management and corporate social responsibility** at the Faculty of Social Sciences, San Tommaso Pontificia University (Angelicum) – for which Acea disbursed two scholarships to cover the registration fees for children of Group employees;
- the **Masters' course in Energy Management** at Milan Polytechnic, under which two students took part in a company-supervised work project;

- **Master's in Geo-information and Geographic Information Systems in support of Regional Sustainable Development and Environmental Protection**, University of Rome 'Tor Vergata' – the master's programme included analysis of the Acea Ato 2 GIS, and shared experience gained from Acea's Workforce Management Project (WFM);
- **Master's in Environment, Energy Efficiency and Smart Cities**, organised by the Sole 24 Ore Business School;
- **Master's in Ecological Plant Management and Maintenance**, Faculty of Engineering, University of Rome;
- **Master's in Environmental Technologies and Controls**, Faculty of Engineering, University of Tor Vergata.

**Aquaser**, in cooperation with the **University of Viterbo 'La Tuscia'** continued **Project Mexico**, launched in 2012, for sustainable production of bioenergy, bio-fertilizers and water from organic waste, in a wooded area of Mexico City. In the area of training apprenticeships and professional orientation, Acea renewed its **framework agreements** with three Rome universities ('La Sapienza', 'Tor Vergata', and 'Europea') and the Faculty of Law of the University of Perugia. As well, Acea Ato 5 signed two new agreements with the 'Brunelleschi-Da Vinci' and 'Itis Reggio' technical high schools, in the communities of Frosinone and Isola Liri.

In 2014, Group companies initiated **17 apprenticeships for high school, university or graduate students**, and **16 internships**. In particular, as has become standard practice over recent years, Acea Ato 2 and LaboratoRI, under the **school/work-experience project**, began two apprenticeship projects, hosting a total of 30 students from two technical high schools in Rome. In 2014, **13 youths joined Acea under open-ended contracts**, replacing their previous arrangements under “atypical” contracts (e.g. cooperant, project-based), or as apprentices and interns: an important demonstration of the concrete opportunities that the company offers to younger generations.

## INTERNAL COMMUNICATIONS

Acea recognises that internal communication is fundamental in **favouring knowledge of the company, facilitating a positive working climate, diffusing organizational culture and developing a sense of closeness to company values.**

Efforts in this area are coordinated by the **Internal Communications Unit**, reporting in turn to the Human Resources Division and parent company management. In 2014, the main objective was to promote company policies of cultural change through awareness raising and involvement of personnel, particularly as introduced by the ACEA2PUNTOZERO programme.

Acea communicates daily with its **employees**, above all through the company **intranet** portal. The portal **provides daily news and notices of interest**, with a banner highlight for the day, and provides interfaces to:

- obtain **basic information on the Group's companies and personnel**
- access the internal telephone directory
- consult official documents (financial statements, value codes, policies, etc.)
- obtain copies of company procedures and regulations
- access the organisational provisions of each Group company
- read news releases and the daily Acea press

review

- download and view video and photos (teasers) on corporate events.

The intranet also provides numerous **detailed sections**, such as: *Safety, Management systems, Training, IT, and Reference legislation* (such as Italian Legislative Decree No. 231/01). "*Persone Acea*" is a special section that enables employees to access content on their own personnel management, and to maintain an up-to-date their *curriculum vitae*, relevant to their career advancement.

This year Acea improved the portal with the **addition of new sections: specifically "Quality, Environment, Safety, Energy"**. These sections deal with certain key topics in integrated fashion: i) aspects concern personnel certifications; ii) **Mobility Management**, created for facilitation of employee travel to and from the workplace, and for promotion of sustainable mobility; iii) ACEA AMA LE DIFFERENZE (ACEA LOVES DIFFERENCES) - developed in cooperation with the Company AMA to promote greater staff participation in the topic of recycling and segregated waste collection.

In 2014, the Group continued publication of the Acea "*QuaderniAcea*", edited by the Regulatory (Study and Research), and Human Resources and Organisation Divisions, with the support of the External Relations and Communication Division. The *quaderniAcea* communicate and enhance the

outstanding initiatives achieved within the Group. In 2014, one of the issues was dedicated to the initiation of Workforce Management (WFM), which is an innovative approach to work organization, supported by automated, portable IT devices. The intranet portal also highlights Acea's social initiatives. For example in 2014, the Group supported the *International Day of Zero Tolerance for Female Genital Mutilation* and the event "*Mai più*" (*Never again*), organised for the *International Day for the Elimination of Violence Against Women*, designated by the UN. Other **communications initiatives for Group employees** included an in-house course titled "Communis Agere", which provided a series of encounters on the topic of public speaking. There was also the "*Acea For You*" initiative, which offered prizes of tickets for arts, cultural and sports events sponsored by Acea, throughout the year. In the *Re-Boat Race*, an event promoting recycling, Acea employees participated by building and competing with four boats, made from recycled materials. Finally, the Group organised a final celebratory event for the closing night of the "*Operation Summer*" initiatives, planned by the company Acea Ato 2.

The project **Meet in Acea** also continued in 2014, coordinate by the Human Resources and Organisation Division. The project involved events exploring topics of current interest, featuring important external guests.

## SOCIAL ACTIVITIES

### REPORT BOUNDARY

The information and data presented refer to: Acea SpA, Acea Distribuzione, Acea Illuminazione Pubblica, Acea Reti e Servizi Energetici, Acea Ato 2, Acea Ato 5, Laboratorio, Acea8cento, Acea Energia and Acea Produzione.

The main organisations providing direct social activities for the human resources are the Staff Recreational Association (CRA), the Gold Medal Association (see box), the National Association for Disabled and Invalid Civilians (ANMIC), and the Italian Christian Workers Association.

The Staff Recreational Association (CRA) **proposes cultural, sporting, tourism, social well-being, economic and commercial initiatives** for the purpose of leisure time benefits to the members, without losing sight of social utility and service. One of the important tools for employee solidarity is the **Aid Fund**, an initiative in support of the families of employees that have died, retired, or may still be in service. Every employee can join through simple submission of a form to the Human Resources

and Organisation Division or CRA. Members thus authorise a small pay-envelope deduction in contribution to the Fund.

In 2014 the CRA counted **4,615 members**, drawn from all staff grades including executives (4,610 in 2013). As in other years, there was a strong demand for the CRA services, given their quality and the limited costs. The CRA continued to manage the **company day care**, open to Acea employees and the residents of Rome's 1<sup>st</sup> Municipal District. **In 2014, there were 46 infants** registered for the first half-year and **44** for the second half.

The Staff Recreational Association is also responsible for agreements with institutions offering further services, such as **supplementary healthcare and cost-free dentistry services**

**for employees and dependent family members**, as well as **free legal advice** (see Table 64). Over the years, the CRA has also activated numerous commercial agreements and conventions benefiting the members. These are indicated on the CRA website ([www.cra-aceait](http://www.cra-aceait)). They include a ticket sales service for the "LisTicket" sports, theatrical and musical events circuit, and access to the Lotomattica service for bill payment and mobile phone recharge. Finally, the CRA supports **social solidarity initiatives** in cooperation with the Community of Sant'Egidio, such as the offer of **meals to the homeless** during Easter and Christmas celebrations.

**TABLE 64 – MEMBERS' USE OF STAFF ASSOCIATION SERVICES (2012-2014)**

<b>(NUMBER)</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
Members using tourism services	1,140	1,012	843
Members benefiting from sports programmes	574	545	448
Youth attending summer camps	150	121	123
Members enrolled in insurance programmes	1,729	1,819	1,952
Members paying instalments on purchases	91	575	96
Members enrolled in the Italian Touring Club	36	24	20
Medical insurance reimbursements	1,082	1,033	953
Members benefiting from "Epiphany" gifts	763	826	850
Members who benefited from scholarships	64	35	44

The Acea Local of the Italian Christian Workers Association (ACLI) supports employees through initiatives such regular visits by a Chaplain, and the organisation of special events and encounters

for parents and families. The Association also offers assistance in planning mortgages and loans, and financial support for children of personnel attending middle and high schools.

A particular Acea social initiative of 2014 was the organization of a women's self-defence course.

### THE GOLD MEDAL ASSOCIATION

The membership of the Gold Medal Association, founded in 1956, consists of **retired and active employees with at least 20 years of company service**. At the close of 2014 there were 901 members, of which 741 were retired and 160 were still active. The Association provides **assistance** to associates in **social and fiscal field**, promotes **social, educational, cultural, recreational and tourism initiatives** and supports **projects of solidarity**.

Some of the notable accomplishments of 2014 were:

- Organisation of 2 social days, with recognition of 28 "exceptional" long-term members (at least 20 years);
- Renewed conventions with a number of business and services, including a law office and physiotherapy centre;
- Awarded 8 scholarships to the children of Association members;
- Organised visits to museums, archaeological and historic sites, monuments;
- Organised tours in Italy and abroad, day-trips and summertime seaside holidays;
- Organised members-only theatre events;
- Provided tax-preparation assistance through cooperation with an external expert, and a dedicated Tax Assistance Centre (CAF) for support in preparation of annual returns, property and municipal service taxes.

The **National Association for Disabled and Invalid Civilians** (ANMIC) works together with the company for the full inclusion of disabled persons and individuals with serious illnesses (**259 employees** in Acea at 31/12/2014).

Over the years, the partnership has led to the removal of architectural barriers in the offices and improvements in workplace safety. ANMIC, recognised in-house since 1957, protects its members and offers them a number of services.

It has also entered into agreements in favour of personnel, such as with an insurance company and the CRA, regarding reimbursement of medical and health expenses.

# SHAREHOLDERS AND INVESTORS

We will ensure our governance system meets the highest principles of transparency and fairness. We will support our management in the identification and assessment of business risks.

Being a listed company, Acea pursues a strategy of relations with analysts and shareholders, both current and potential, coordinated through the **Investor Relations** Division. The Division coordinates relations with the various parties of the financial community, ensuring the provision of **timely, complete and transparent information**, and manages the flows of information between the company and the competent Supervisory Authorities (Consob and Borsa Italiana), as well as the fulfilment of corporate obligations for listed companies.

## ECONOMIC FLOW TOWARDS SHAREHOLDERS AND INVESTORS

In 2014, the shareholders received **dividends** derived in part from current-year operations and in part from results of previous years, **amounting to 95.8 million euros** (89.4 million euros in 2013). This corresponds to 45 euro cents per share, and a **payout of 59%** on net profit. Profit distribution to minority shareholders amounted to 6.5 million euros.

At the close of the last trading session of 2014, the value of Acea shares was 8.94 euros (capitalisation 1,903.9 million euros), up about 8% over the previous year.

TABLE 65- ACEA SHARE VERSUS SHARE INDEX PERFORMANCE (2014)

	<b>% CHANGE 31/12/2014 (compared to 31/12/2013)</b>
<b>Acea</b>	<b>+8.04%</b>
FTSE Italia All Share	-0.33%
FTSE Mib	+0.23%
FTSE Italia Mid Cap	-3.86%

**Capital investors** were allocated **129.3 million euros** (126.4 million euros in 2013). The composition of the financial charges for 2014 confirms the trend already registered the previous year: on the one hand, the increase of interest on bonds, for around 17 million euros, due to the effect of bonds placed in 2013 and 2014, and on the other hand the decrease in fees on transferred credits of about 4.7 million euros and the reduction of interest on short, medium, long-term debt for around 7 million euros.

In July 2014, Acea SpA successfully placed an **issue of 10-year bonds, of value 600 million euros**, as part of a planned issue of 1.5 billion euros approved by the Board of Directors on 10/03/2014. The offer was targeted at institutional investors, who registered demand of more than 2 billion euros. The issue was applied to refinancing expiring bonds and loans with the aim of optimizing the debt structure: specifically reduction of rates and increase in the average duration of the debt.

## AGENCY RATINGS

A **rating** is a summary opinion on the credit worthiness of a party based on its ability to reimburse principal and interest within established deadlines. In its interactions with the financial markets, Acea voluntarily submits to independent assessments made by the leading international rating agencies.

TABLE 66 - 2014 RATINGS

AGENCY	LONG-TERM RATING	SHORT-TERM RATING	OUTLOOK
S&P's	BBB-	A-3	Stable
Moody's	Baa2		Stable
Fitch	BBB+	F2	Stable

**Standard & Poor's** maintained its overall rating of Acea stable for 2014, with respect to the previous year. In the year-end report on Acea, the agency stressed discontinuities with the past, illustrating that the changing regulatory structure for water should lead to greater stability in cash flows, even if the economic depression were to continue in the broader national and institutional contexts. This element strengthened the overall

positive judgement of the business risk profile, which went from **Satisfactory to Strong**. **Moody's** confirmed the rating of the previous year, indicating that Acea's activities show low risk profiles, thanks in part to the 80% EBITDA guaranteed under business regulations. The agency also commented favourably on the contribution to improved liquidity achieved by the 2013-2014 share emissions.

**Fitch** confirmed its rating on Acea, while improving the outlook from negative to stable, considering in particular the more positive first-half regulatory environment on the part of AEEGSI, and the greater sectorial weight achieved by the Group.

## FINANCIAL DISCLOSURE

During 2014, **around 100 studies and/or notes on Acea** were published.

The Investor Relations Division held **around 160 meetings** with Italian and international equity investors, buy-side analysts, credit investors and analysts, Italian and international investors, as well as holding conference calls with the market at the moments of presenting the annual and

intermediate results and the 2014-2018 Industrial Plan.

The group ensures that economic-financial news, such as on price-sensitive topics, credit ratings, share trends and highlights, is constantly updated in the shareholders' section of the **company website**. The site also provides relevant documents, presentations and further information. An on-line version of the last sets of Acea Group financial statements is available

on dedicated web pages (both statutory and sustainability reports).

Acea's efforts to improve financial and on-line communications gained the company listing in the Italian edition of **Webranking**, the most respected European analysis of quality and innovation in the large-corporation websites. The company scored 23 out of 100 and ranked 55<sup>th</sup> out of a total 69 rated companies.

## SUSTAINABLE AND RESPONSIBLE FINANCE

### 'TRADITIONAL' VERSUS 'SUSTAINABLE AND RESPONSIBLE' FINANCE: HEADING TOWARDS CONVERGENCE AND INTEGRATION?

The continuing evolution of the concepts of corporate social responsibility (CSR) and sustainable development presents a highly interesting contrast between **"traditional" financial operators and those specialising in sustainable and responsible finance**. The encounter of the two worlds is typically interpreted as the entrenchment of two deeply rooted, opposing visions of the very function and objectives of finance.

In 2014, as the current economic crisis continued, a number of important indications were developed that serve in overcoming the preconceived barriers between mainstream and sustainable finance, and in searching out elements of coalescence in views on reporting finance and carrying out its necessary and positive role as the motor of general economic vigour. The **Financial Sustainability Forum (FSS)** is a particularly relevant contributor to the continuing definition of **sustainable and responsible investment**, given its approach of very broad consultation among sectorial players. In a recent position paper, the FSS devoted considerable attention to the evolution of the concept of ethical investment over time. Initially, the concept considered almost exclusively moral questions, but has now become open to issues of objective evaluation, and optimisation of risk vs. profit, in the same manner as for traditional investment. In fact, EU policies on long-term financing pay increasing heed to the medium to long-term views and the broadened evaluations of ESG aspects (environment, social, governance), as offered by approaches of responsible investment.

Still more significant is a **collective engagement**, launched by the principle **Italian pension funds in regards to the big banks**. Promoted by **Assofondipensione** and **Fondo Cometa** in particular, the initiative is the first of its kind in the country. With this initiative, the **Group of Italian Funds (Euro AUM 23 bn)** has taken a position regarding the risks and impact of climate change on sustainable development, and thus for the objectives of the pension funds: essentially, the core objectives of these funds are to ensure adequate performance for the pensioners. In this prospect, the Italian funds **group sent a formal information request** to the 40 principle international banks, for information on their policies of risk evaluation and award of financing to industries considered as the main contributors to climate change.

Both of the initiatives described illustrate a convergence between actors, areas of interest, methods of analysis and operation, which will very likely continue. This convergence will be reinforced where there is support from public policies (for example through implementation of de-taxation for SRI investments), as well as through the rethinking of the role of finance in the regular economy.

## SUSTAINABLE AND RESPONSIBLE INVESTMENT TRENDS

The Vigeo Group, in its *2014 Review of Green, social and ethical funds in Europe*<sup>88</sup>, describes **the evolution of ethical funds in Europe** between June 2013 and June 2014. The data confirm the trend to recovery initiated in the previous year, with an increase in both the **value of assets managed and the number of active funds**, and show a generally more dynamic market.

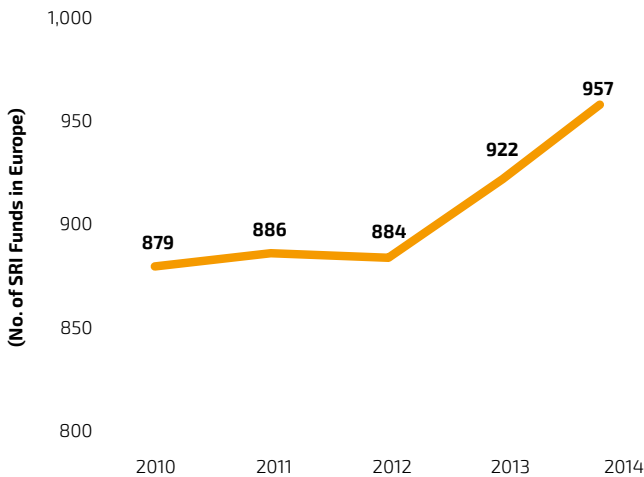
According to the Vigeo analysis, a gradual release from the crisis is currently taking shape in the financial markets. Along with this, there is greater solidity and diffusion of socially responsible investment (SRI) in all the European nations, although still reflecting different levels of knowledge. The analyst also stresses the role

that each actor can play in strengthening this knowledge and giving greater weight to these forms of investment, which still present ample margins for development. Vigeo further illustrates the progressively increasing emphasis on ESG factors (Environmental, Social and Governance) in comprehending the true value of the companies. At June 2014, there were **957 active** Europe-based **SRI funds** with broad market distribution. This was an **increase of 4%** over the 922 funds of the same period in 2013, and in line with the trend observed in the previous year. The **value of assets managed increased 18%**, continuing the tendencies of the five-year period, **reaching around 127 billion euros, compared to 108 billion euros in 2013** (see Charts 31, 32 and 33).

France, the UK, Switzerland, the Netherlands, Germany and Belgium continue to be the countries where the dimensions of the SRI funds market are most solid. These five nations together manage 78% of the asset value, and a full 50% of European funds are based in the two nations of France and Belgium alone. France in fact assumes dominance in the market, with over 27% of funds based in that nation, and 36% of assets managed. However, the analyses also show notable dynamism in other countries: in 2014, **new funds were launched** in Spain and Belgium, and there was a **marked increase in the value of assets managed** in most European nations, and in particular in Spain, Denmark, Italy, Norway and France.

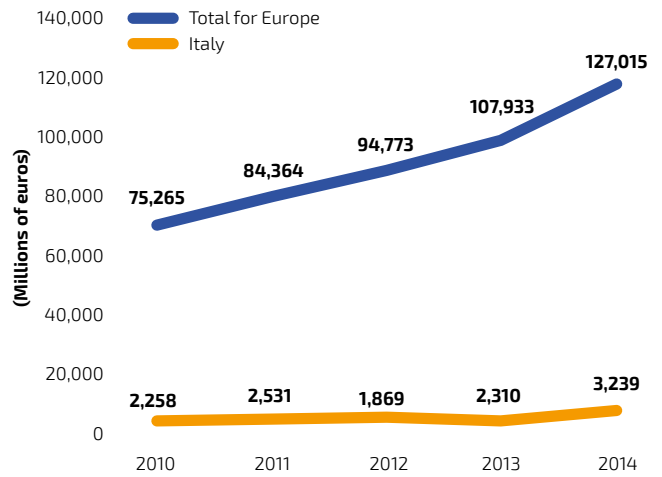
<sup>88</sup> The report, now in its 14<sup>th</sup> edition, represents a point of reference for analysis of trends in socially responsible retail funds (SRI) domiciled in Europe. The scope of analysis includes: Austria, Belgium, Denmark, France, Germany, Italy, Luxembourg, Norway, the Netherlands, the United Kingdom, Spain, Sweden and Switzerland and takes into consideration the SRI retail funds which use ethical, social and environmental selection criteria active at 30/06/2014.

**CHART 31 – CUMULATIVE NUMBER OF SRI FUNDS IN EUROPE (2010-2014)**



Source: Vigeo Group, Green, social and ethical funds in Europe, 2014 Review

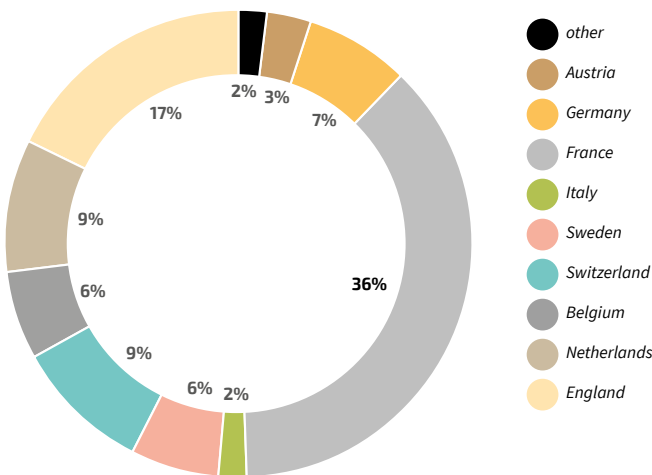
**CHART 32 - TOTAL ASSETS UNDER MANAGEMENT BY SRI FUNDS IN EUROPE AND IN ITALY (2010-2014)**



Source: Acea elaboration from data in Vigeo, Green, social and ethical funds in Europe, 2014 Review

**CHART 33 - ASSETS UNDER SRI FUNDS MANAGEMENT, BY NATION (2014)**

Total AUM 127,015 million euros



Source: Vigeo, Green, social and ethical funds in Europe, 2014 Review

**THE ESG ANALYSTS EVALUATE ACEA**

Acea maintains a continuous strategy of cultivating relations with the ESG (Environmental, Social and Governance) sphere. For 2014, the company can readily observe its own position in analysts' evaluations, rankings and benchmarks, as reviewed below.

**Acea is present in the FTSE ECPI Italy SRI Benchmark index**, which includes the top 100 companies listed on MTA seen as having **notable ESG characteristics**, meaning a rating of at least E+ (scale F/EEE).

According to **Kempen Capital Management**, which has monitored the Group since 2005, Acea continues to demonstrate commitment to corporate citizenship, which justifies its inclusion

in the Kempen 2014 *Sustainable Investment Universe*.

**In 2014, Oekom Research** carried out a **complete updating of the Acea ESG profile**. At the end of the analysis, and in fact in disagreement with the company, Oekom assigned Acea the level B-, confirming the judgement offered in the interim update of the previous year. However Oekom did **recognise Prime Status** for Acea, which is an indication the company exceeds minimum requirements of its sector and is a leader in sustainability for its respective areas.

**Kepler Cheuvreux ESG Research** examines over 700 listed companies. Of this group it placed Acea in the group of 55 "green impact" companies (35 of which are small and medium

capital), consisting of the most active companies in the six industrial areas examined. For Acea, the pertinent categories are "waste management" and "water resources". Kepler Cheuvreux evaluates the companies based on their actions, identifying those that can have significant impact in the pursuit of an economy of sustainability, low carbon content and the efficient use of resources.

There were also other occasions for encounter and interaction between ACEA and operators in sustainable and responsible financing, stimulated by requests for deeper study, and for support in development of benchmarks, ratings and investment evaluations, in particular from **Etica SGR, Symphonia SGR, Evaluesserve and Vigeo**.

# INSTITUTIONS AND THE COMPANY

We will ensure that Group companies are at the forefront of technological, process, and product innovation.

The economic value returned to the **public administrations** in 2014, under the form of taxes, amounted to approximately **120.9 million euros** (105.8 million euros in 2013). The tax rate for operations was equal to 41.7% (40.8% last year).

Acea regularly pays contributions and membership fees to other public and private bodies, such as the chambers of commerce and the independent administrative authorities, the sector associations and the business representation bodies. In 2014, the overall total of this item came to around 3 million euros, unchanged with respect to the previous year. In detail, around 1.7 million euros was paid to the supervisory authorities (AEEGSI, AGCM, Consob and other public service authorities), around 108,000 euros was incurred as mandatory charges for chambers of commerce and 1.2 million euros for contributions to confederal bodies and for sundry membership fees (Federutility, Confservizi, Unione degli Industriali).

The **institutions** are a preferential partner in realising actions and **initiatives that produce positive outcomes for the regional social and economic fabric and the local quality of life**. Such relationships are further stressed by the essential nature of the Group's services and their significant impacts on the community (see *Customers and Community, Human resources and Environmental issues*).

Acea interacts with the various institutional parties in observance of the principles and regulations stated in the Group's Code of Ethics, which in **Article 19** defines the parameters of relations with government institutions, political parties and trade unions, establishing that:

*"Acea shall not contribute in any manner to the financing of parties, movements, committees and other political or labour organisations, even if an association or foundation essential to same, or their representatives or candidates.*

*The relations between the company and political and trade union organisations, as regards issues of interest to the*

Aware of its entrepreneurial role, Acea interacts with the institutional and economic stakeholders across the areas in which it operates, adopting an engaging-oriented approach fostering a common dialogue for the purpose of creating benefits to be shared by all the parties involved, primarily for the communities and areas that are impacted by company operations.

## RELATIONS WITH INSTITUTIONS

Relations between Acea and the government institutions concern both the economic dimension (duties and taxes) and the social dimension (dealings with local institutions and sectorial Authorities; dialogue with Consumer Associations and other representatives of the general public; professional and institutional cooperation). Acea conducts these affairs on a basis consistent with current legislation and the Group's *Code of Ethics*.

*company, are based on mutual respect and cooperation.*

*Every relationship must be authorised by the competent structures, paying particular attention to avoid situations in which there may be conflicts of interest between Acea and the figure authorised to establish relations with the political or trade union organisation.*

*In any event, Acea shall abstain from conduct designed to exert pressure, either directly or indirectly, on political and trade union figures in order to obtain advantages".*

Acea has defined a detailed organisational model for the proper management of its relations with the institutions, including indications of appointments and precise responsibilities of the various corporate divisions. In accordance with this model, **Acea SpA's Chairman** ensures the **legal representation** and the **definition of the institutional strategies**.

The **Institutional Affairs Division** ensures the overall representation of the Group positions with the local, national and European bodies and institutions, monitors the developments in the legislative scenario pertinent to corporate businesses and co-ordinates, within the sphere of dealings with the Consumer Associations, the activities correlated to joint conciliation procedures. The **Legal and Corporate Affairs Division** sees to the communications and notifications for the **Supervisory authorities** on companies and the stock market (Borsa and Consob). The **Regulatory Division** oversees the dealings with the **Regulatory Authorities** in the reference sectors, representing the positions of the Group companies in the participative procedures for the formation of the regulations launched by authorities, bodies and institutions.

Together with the Parent Company, the **Group operating companies** also manage the **"technical-specialist" aspects** of the water, electricity and public lighting services, again through **consultation** with the various

administrative, regulatory and control bodies.

Acea achieves **initiatives and projects** in synergy with the appointed institutions and research bodies, concerning the **social, environmental and security spheres, as well as the preservation of cultural heritage, and concerning technological innovation**.

With regard to **security**, meaning **prevention and management of emergencies**, Acea participates in expert **Workgroups**, offering its particular skills. In 2014, Acea continued its contributions to the **Inter-Ministerial Technical Commission for Civil Defence (C.I.T.D.C – Ministry of the Interior)**, for the identification and protection of **critical infrastructure**. The purpose of the Commission is to improve emergency management and response to crisis situations, for which Acea participates in **practice exercises** organised Ministry of the Interior.

The company also took part in the **Panoptesec** project, initiated by EU institutions, aimed at **increasing the level of surveillance against cyber-risks**, and speeding reaction times to critical situations. Within 2016, the companies and institutions involved in the project - including highly rated French and German universities and the University of Rome Centre for Cyber-Intelligence and Information Security Research (CIS) - will **develop a prototype with Acea**, for a system to be applied to protection of critical infrastructure, networks and sensitive data, and to efficient management of emergencies.

In **alarm situations**, Acea guarantees support to the competent Authorities for matters of public health, defence, civil protection and public security.

In 2014, continuing from the previous year, Acea collaborated in the work of the **National Security Monitoring Centre (OSN)**, taking part in the **Workgroup on Civil-Military Cooperation**. In this context, Acea participated in organising the 6<sup>th</sup> national emergency exercise as part of the **35<sup>th</sup> COCIM Course**, dedicated



to training military and civilian personnel in the legal framework and procedures in matters of civil defence, civil-military cooperation and civil planning for emergency response in the national environment, including UN, NATO and UE cooperation.

With the objective of ensuring **maximum levels of security in the provision of company services**, Acea avails of operative instruments that permit rapid restoration of normal network and equipment functions in case of critical events (system breakdowns, severe weather conditions,

etc.). In addition, each operating company maintains its own **Emergency response and intervention plans**, and through the relative **control centres, constantly monitors the state of networks and plants** – water, sewer, electricity and public lighting – in cooperation with **Roma Capitale, national and other community Civil Protection Services**. **The Acea Ato2 Emergency Management Plan** provides for defined, structured responses to potential extreme conditions that could prejudice the continuity and quality of integrated

water services. Based on classification of levels of emergency, the plan describes **preventive and corrective measures** to address the different types of emergencies: network damages, pollution, electrical or telecommunications-control blackout, water crisis, snowfalls, and emergencies in the sewer and water-treatment services.

**Acea Distribuzione** also has an **Emergency management plan** to deal with potential breakdowns and widespread failure in the network (see in-depth box)..

#### EMERGENCY MANAGEMENT FOR ELECTRICAL DISTRIBUTION NETWORKS

The **Emergency Management Plan for Acea Distribuzione** defines the different states of activation (ordinary, alert, alarm and emergency), in function of the operational and environmental conditions. It sets out the **procedures** for activation and termination of these states; the **units involved** and their respective roles; the **resource materials** necessary for the operational maintenance and recovery of systems and equipment. Finally, it provides for identification of the Emergency Management Chief and defines the specific resources to be dedicated to security operations in the different cases foreseen.

The **detailed Operational Plans** provide precise indication of the methods for managing different types of exceptional situations (floods, fire, breakdown in informatics-control systems, failures in power and supply systems for major utilities, etc.) with accompanying indications of the management procedures, materials, equipment and resources necessary. For example, the operational documents indicate the procedures to re-activate the electrical system in the case of a blackout of the National Transmission Grid (RTN), and the procedures for returning power to strategic consumers (e.g. the houses of parliament, government offices, Vatican State, etc.).

The Master Plan and detailed Operational Plans are available on company intranet, accessible only by authorised personal passwords. Acea **updates the plans annually**, as well as continuously improving them based on the periodic analysis of actual events.

Acea also tests the effectiveness of the emergency response procedures and infrastructure through practice exercises. For example, in 2014 the procedures for backing up the Central Control System for the electrical distribution grid were tested.

In the preceding years, Acea participated in the Ministry of the Environment process for definition of Minimum Environmental Criteria (CAM), which companies must meet to participate in the **National Plan of Action for Green Public Procurement –GPP NPA**.<sup>89</sup> On this basis, in 2014 the Group introduced its own new environmental criteria for the management of its calls for tenders, in particular to award contracts for maintenance of green space (see *Suppliers*).

The aim of Acea's **partnerships with the local public administrations** is to achieve **substantial initiatives for their areas** and promote a model of development based on

sustainable use of water and energy resources (also see *Customers and Community and Environmental issues*).

In 2014, together with the mayors included under ATO 2 and the City of Rome Office for Suburban Development, Acea developed a plan for installing **Case dell'Acqua** at various points in Rome and the Province of Rome: these are technologically advanced water fountains offering free, cold "natural" or "sparkling" water to citizens and tourists.

In 2013, following the agreement between Enel and Roma Capitale for the development of **electric transportation**, Acea installed the first 12 recharging stations in the city, and in

2014 conducted the preparatory meetings for identification of new sites and, in substitution for the first ones chosen.

In cooperation with the City of Rome Transport Office, the company expanded its undertakings for **sustainable transport**, including developing agreements for the staff to benefit from conventions for purchase of annual public transport passes.

Finally, Acea Distribuzione, with other institutional and private actors, launched **Project RoMa (Resilience enhancement of Metropolitan Area)**, intended to develop a **Centre for Metropolitan-Area Security Management** (see in-depth box).

#### PROJECT ROMA (RESILIENCE ENHANCEMENT OF METROPOLITAN AREA)

Progetto RoMA, valid over a three-year timeframe, aims to achieve **technological tools and advanced service models for increasing the resilience of the capital-city metropolitan area**, by researching and testing **new forms of interaction between citizens and the public administration**.

The project will develop a **Metropolitan Area Service Centre (CSAM)**, which will draw on substantial information gained through field sensors, and development of innovative predictive and analytical models drawing on real-time data, to provide exceptionally high-level services and efficient management of multiple areas, such as public safety, infrastructure, access to primary services (transport, health, etc.), and territorial protection.

**Acea Distribuzione** is the project leader for the research group, which includes the University of Rome 'La Sapienza', Enea, Telecom Italia and many information and communications technology companies.

89 The GPP NAP was recommended by the European Commission in 2003 and implemented in Italy by Law No. 296/2006 and Ministerial Decree dated 11 April 2008 (MATTM - Ministry of the Environment).

Acea is constantly attentive to the proactive evolution of its business sectors, and for this develops synergies with complementary **companies** and businesses, through **cooperation and partnership**. For example in 2014, the company signed an **agreement with Eataly**, for initiatives to **increase public awareness** of the value of quality water resources and supply. The Group also continued its professional cooperation with **NEC SpA**, a world leader in technological innovation, leading to the installation of a number of secondary stations for **electrical energy storage systems**.

In addition, based on the 2013 memorandum of understanding with Telecom and Fastweb for the upgrade and increase of Rome's **ultra-broadband fibre-optic Internet system**, the Group also carried out works for electrical supply to 2,500 cabinets. Also in 2014, Acea Distribuzione, with Enel, Terna and a number of suppliers of power transformers and oils, started **experimentation** for using **biodegradable liquids of vegetable origin** in power transformer substations instead of mineral oil, thereby reducing pollution and fire hazards (also see *Customers and Community and Environmental issues*).

Acea is a member of **research centres, standardisation bodies and sectorial associations** that promote the business areas of the Group or contribute to specific research activities (see related box).

Within the company there is also a **Research and Study Unit** (Regulatory Division), which **monitors and analysis local, national and international research** and publications on behalf of the Group companies. The Unit prepares a monthly compendium report, it distributes to a selected internal mailing list.

#### MEMBERSHIP IN RESEARCH CENTRES, STANDARDISATION BODIES AND SECTORIAL ASSOCIATIONS IN 2014

The main memberships renewed or initiated in 2014:

- National Agency for New Technologies, Energy and Sustainable Economic Development (ENEA);
- AGICI – Business Finance;
- Acquisti & Sostenibilità;
- Accademia dei Lincei Friends Association;
- LUISS Friends Association;
- Italian Lighting Association (AIDI);
- Italian Association of Expert Infrastructure Researchers (AIIC);
- Italian Electrical Technology and Electronics Association (AEI);
- European Association of Electrical Energy Distribution Companies;
- Italian Water Technologies Association (All);
- National Association of Electricity Suppliers (Assodel);
- CIREN (Congrès International des Réseaux Electriques de Distribution)
- Italian Electrical Technology Committee (CEI);
- CSR Manager Network Italia (Altis);
- National Technological Cluster for Energy S.c.ar.l. (Di.T.NE.);
- Milan Polytechnic Energy and Strategy Group (ES-MIP);
- Federation of Energy and Water Companies (Federutility)
- Italian Federation for Rational Energy Use (FIRE);
- Einaudi Foundation;
- Utilatis Foundation (Centre for Study and Research on Water, Energy and the Environment);
- Global Compact Network Italia;
- I-Com (Institute for Competitiveness);
- ISES Italia (International Solar Energy Society – Italian Section);
- European University Institute – The Florence School of Regulation
- Italian Unification Institute (UNI);
- Italian Association for Trenchless Technology (IATT);
- REF-Research: Laboratory for Local Public Services;
- REF-E: Energy Observatory;
- World Energy Council (WEC).

Acea maintains relations with the **institutions tasked with youth education**, in order to create profitable links between the world of employment and **new talents**, thus creating numerous opportunities for fulfilment of joint benefits. The company offers new university and high-school graduates **opportunities for internships and apprenticeships experience** within Group companies, and **supports** research activities and masters' studies on topics of interest by providing **financing and student loans and scholarships** (see also *Human Resources*). The company also provides **professional expertise** in support of university courses and masters' degrees, and to advise thesis candidates.

In 2014, **qualified company personnel participated as instructors or expert guests in masters' programmes** dealing with topics of **corporate social responsibility** and technological innovation, such as **electric transportation** and the **smart grid**. The Group operating companies also cooperate with **universities on technical projects** in both the water and environment-energy sectors (see the section *Research*, in *Environmental issues*). The company **takes part in encounters** involving the entrepreneurial sphere, scientific community, institutions and citizens, dealing with **current issues and subjects of national and international importance**, and **offers**

**its specialist contribution for conferences and workshops** dealing with its businesses areas. For example in 2014, Acea took part in the congress Utilities: **The Little One is no Longer Prince?**, organised by the Astrid Foundation and Federutility. The sessions traced the evolution of multiutilities, with particular attention to energy, water and waste infrastructure management. Acea also participated in **thematic workshops** organised by Federutility and *Il Sole 24 Ore*, on development of electric transportation and smart cities. The Group participated in **international conferences**, including the 5<sup>th</sup> European Congress on Innovative Smart Grid Technologies (ISGT), in Copenhagen, and **the International**

**Conference** “Urban Futures-Squaring Circles: Europe, China and the World in 2050”, in Lisbon. Acea also participates in debates on **environmental protection** and **regional planning** issues. In 2014 Acea provided a presentation at the conference **Water services in Italy: Information systems and governance**, organised by ISTAT, and participated in the technical round-table for uniform definition of community types present on national territory, jointly organised with the Technical Operational Secretariat of the Conference of ATO 2 Mayors, ISTAT, the Region of Lazio and the Province of Rome. On the topic of **cyber-security**, Acea provided a presentation and a number of other significant initiatives, including for *Security Summit 2014* and *Cybersec 2014*.

Acea’s dialogue with stakeholders offers the Group the opportunity of **hearing and evaluating the legitimate requests of customers**, citizens and entrepreneurs, including through interaction with their representative organisations: the federations, entrepreneurial associations, unions and consumer associations. Among the responsibilities of the Company’s

**Institutional Affairs Division** is that of overseeing **relations with consumer associations**, via the Institutional Relations Unit and together with the Group operating companies. For a number of years, Acea has adopted **joint mediation** procedures for dispute settlement, particularly involving the companies Acea Ato 2 and Acea Ato 5 for the water sector, and Acea Energia and Acea Distribuzione for the energy sector. Mediation is available for household customers in Lazio, who are represented by Consumer Associations recognised under the National Consumers and User Council - CNCU. In 2012, Acea Energia also signed a memorandum of understanding with Rome Confcommercio, in the role of representative of “company customers”, meaning that these clients can also now avail of mediation, as a voluntary, non-binding tool external to formal legal channels, useful for the resolution of controversies that may arise with Acea Energia.

In 2014, the **Consumer protection associations brought 339 cases into conciliation procedures**, on behalf of clients of Acea Energia, Acea Distribuzione, Acea Ato 2 and Acea Ato 5, down from the 403 admitted in

2013: Acea Distribuzione accepted 20 cases for conciliation; Acea Ato 2 and Acea Ato 5 accepted 108 and 18 requests for conciliation, respectively. In carrying out **surveys of water and electrical customer satisfaction**, the company researches the **levels of awareness of mediated dispute settlement**, and the **level of use** by those that state they know of the system. The responses indicate that consumers still have **very limited knowledge of mediated settlement**, with awareness levels fluctuating at around 1% to 5%, while the levels of use by those who are aware of the system stand at 4% to 16%. The encounters organised over the years with the **Consumers associations** continue to focus on the solutions implemented by the company to respond to and deal with critical problems, particularly involving energy services. The sessions have focused on illustrating the solutions offered by the Company, including mediated reconciliation for complaints advanced by both individual clients and their Associations. In addition, under the activities financed under tender from the Electrical Sector Compensation Fund (CCSE), Acea has joined with the consumers associations in the offer of training courses for the position of “Mediator”.

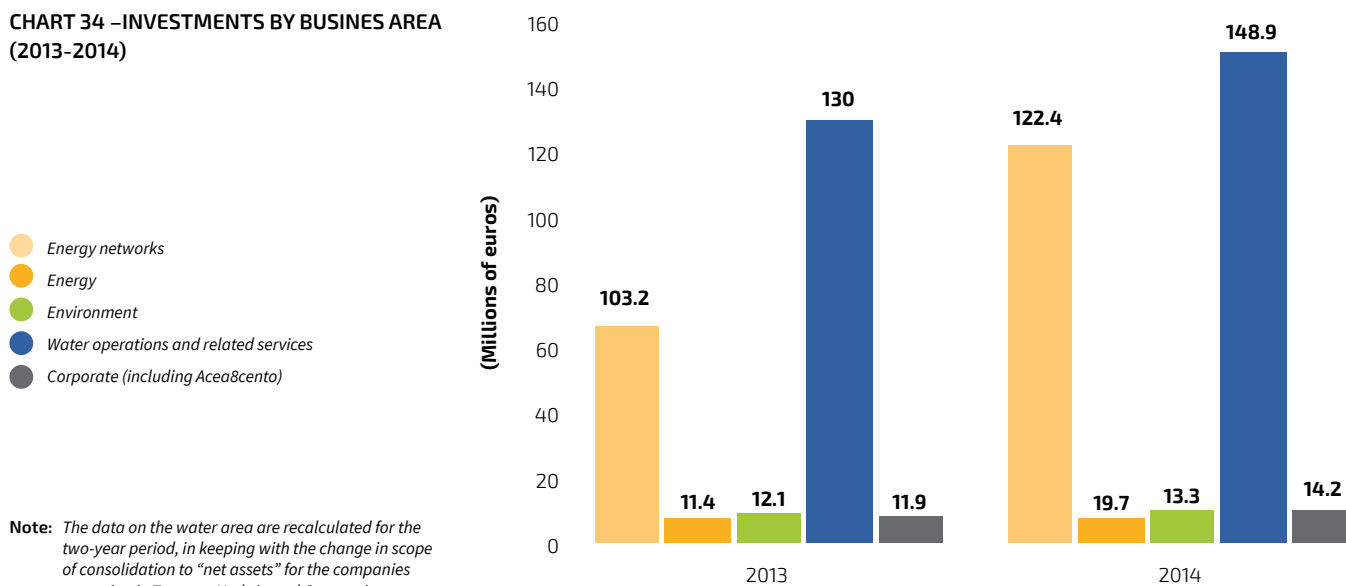
## THE COMPANY AS A STAKEHOLDER

Acea protects and exploits its **tangible and intangible assets** to achieve a stable financial position, and **governing internal demands for efficient and effective results** in operations and growth, **consistent with the aims expressed in the corporate mission and strategic Plan**.

**Investments in 2014** totalled **318.6 million euros**, increasing from 268.6 million in 2013. The growth in allocations involved all business sectors. 13 million euros went to the **Environment** area for upgrading infrastructure, including security. **Energy** registered investments of 19.7 million euros, across both the energy generation (Acea Produzione and Ecogena) and sales sectors, primarily for upgrading IT actions. The **Water**

**area** received 149 million euros, primarily going to Acea Ato 2 for maintenance, repair and enlargement of the water-sewer networks. 122 million euros were invested in the **Networks** area, for the expansion of the High-Tension Grid and the renewal of the Low/Medium Tension Grid. Finally, the **parent company** invested around 14 million euros for improvements in IT performance.

**CHART 34 – INVESTMENTS BY BUSINESS AREA (2013-2014)**



**Note:** The data on the water area are recalculated for the two-year period, in keeping with the change in scope of consolidation to “net assets” for the companies operating in Tuscany, Umbria and Campania.

**Amortisation, depreciation, provisions and write-downs** amounted to **327.3 million euros** (+4.8% over the 312.2 million euros of 2013). In detail, **amortisation and depreciation** amounted to 203.5 million euros (194.8 million euros in 2013), in large part from intangible fixed

assets, due to the entry in operation of software for technological development and improvement in activities. The **write-downs of receivables** came to 110.2 million (80 million euros in 2013), primarily resulting from companies in the Water and Energy areas, while **provisions** were at 13.6

million euros (down from 37.8 million in 2013). In 2014, Acea obtained a contribution towards **investments in infrastructure necessary for the integrated Rome/Province of Rome water services**, from the European Investment Bank (EIB) (see in-depth box).

#### EIB INVESTMENT FOR INCREASED WATER SERVICE IN ROME AND LAZIO

In August 2014, the **European Investment Bank (EIB)** confirmed financing totalling **200 million euros** in support of the Acea investment plan for **ATO 2 Central Lazio water infrastructure**. The financing inserts in a total investment plan of 680 million euros, programmed over four years. Prior to this decision in favour of Acea, the EIB conducted a detailed technical investigation, which **recognised the adherence of the planned infrastructure interventions to sound principles of socio-environmental sustainability**. The investments are for around 30 maintenance and construction projects featuring improvement in local environmental conditions, through increased capacity of wastewater treatment systems, improved safety standards, rebuilding of water-sewer networks, protection of water sources, and finally improved quality in customer water supply thanks to new extraction and treatment plants and renovation to existing ones. The financing agreement is part of a long-standing relationship between Acea and the EIB, whose mission is financing sustainable development in the EC nations.

The parent company's **Asset Protection Division**, supported by the Group's additional specialists in protection, are responsible for the protection of **corporate assets, prevention of fraud, and adherence to legislation on security matters**, particularly for **protection of privacy and sensitive data** (Italian Decree law no. 196/2003), and **workplace safety** (Decree law No. 81/2008).

The Division coordinates **measures for security in company property and workplaces**. Through the **Security Operations Room (SOS)**, it supervises **entry control, reception, guard services, and video surveillance, anti-intrusion and alarm systems**: such systems are in operation at the Piazzale Ostiense properties and the various sites of Acea Energia, Acea Illuminazione Pubblica, Acea Produzione, Acea Distribuzione, Laboratorio, Acea Ato 2, Acea Ato 5 and A.R.I.A.

In 2014, Acea SpA continued work to **upgrade the Security Operations Room** to more efficient and advanced technologies. The company constructed a temporary operations room to maintain continuity in security service, avoid the potential of gaps, and minimise workplace difficulties for staff.

Finally, works continued for **improving the video-surveillance and anti-intrusion systems** (alarms, sensors, video cameras and surveillance), resulting in requalification of 13 separate systems.

Acea manages numerous other **internal procedures** to guarantee the **protection of company assets**, such as in **control of access to company sites**, access to recordings from the video-surveillance system, and destruction of confidential documents.

Acea **protects the Group's central and auxiliary information systems and communications infrastructure**. These functions are directed by the **Information and Communication Technology (ICT) Division**, which defines policies and operational standards for protecting the information, in keeping with

the organisation's functional model, the legal requirements, and the objectives and policies defined by the Safety and Protection Division. The entire Group has adopted **guidelines and procedures for information security** and for the **protection of corporate information assets**, including raw and processed data. These guidelines define the necessary behaviours for employees and third parties working with the company, the means of using computerised and telephone IT resources (for example, accessing Internet services, company e-mail, use of personal and portable computer drives), and the monitoring necessary to counteract IT crime. Initiatives to **update procedures** were begun in 2013 and continued in 2014, to maintain conformity with Decree law No. 196/2003 (Code on Privacy) and achieve ISO 27001 best practice standard for management of IT security. In fact, Acea has checked the conformity of its information to Italy's Code on Privacy, and subsequently improved the security for management of personal data.

Acea also ensured **control over IT security** through interventions to contrast potential risks and security violations. In 2014, Acea Ato 2, with the supervision and coordination of the parent company, implemented new testing procedures for the **remote-control and distance network-monitoring system**. Also in 2014, Acea Distribuzione acquired an advanced remote-control system capable of identifying and blocking cyber-attacks using advanced evasion technologies (AET).

2014 was also the year for launch of **renewal, standardisation and centralisation of technological innovation in group IT systems**, in the service of company processes. By 2016, the **ACEA2PUNTOZERO programme** will introduce radical innovations to the IT system, in support of customer service, credit management, metering, billing and works management. The IT solutions chosen are based in the SAP platform. However, they also involve readily integrated satellite systems and applications for innovative billing systems, Customer Relations

Management (CRM), Workforce Relations Management (WFM), and for automatic work scheduling and assignment of operational units, using mobile devices. The new IT infrastructure rationalises systems across the spectrum of company applications, and gains important process improvement, reduction of error, as well as real-time monitoring and control, etc. (see box in *Corporate Governance and Management Systems* under *Corporate Identity*).

Acea has also established an **ICT Control Room**, to ensure coherent planning and development of initiatives and solutions for the Group companies, in line with the programme ACEA2PUNTOZERO. The Control Room is responsible for elaborating standardised ICT solutions, reducing implementation times, speeding the release of solutions, and creating synergies between the individual internal operations.

The Group companies have also undertaken further initiatives to supplement the developments of SAP, through new systems integrated with the existing principal applications of IS-U, CRM, WFM and ERP. Among these are: i) the new Acea Geographic Information System (GIS) 2.0, which proceeds with the computerisation of the networks by **unifying the territorial information systems across all the Group companies**; ii) a new Document Management System (DMS) 2.0, providing extension of the **systems** already adopted in the energy areas; iii) Business Intelligence (BI) 2.0, which is a new concept of **systems for Data warehousing and Business analytics**; Human Capital Management (HCM), to support implementation of the new **Personnel Information System**, which is in turn a necessary support for the reorganisation of the Group's human resources management. 2014 also saw the continuation of the programme to **consolidate the Enterprise Resource Planning (ERP) platform**. Acea uses this platform to manage the important corporate processes of Administration, Finance, Control, Purchasing and Logistics. The objective is to continue to unify the SAP platform, arriving at a

single integrated documentation system, in use throughout Acea.

In response to the **degradation of documentary records**, Acea has begun conservation copying of paper-based account books, daybooks, asset registers and VAT registers, in computerised form. Acea has also computerised the billing process, including introduction of a workflow instrument to support the registration of the bills.

Finally, with the support of a new “Document Composition” technical platform, customer can now easily consult **the new version of the Acea water bill** online, and both customers and operators in financial offices can view the bill together, for “in-person” payments. Parallel

with this new layout for digital billing, Acea also provided for emission of computerised billing records to the Public Administration, as now required by legislation.

The Group also organises internal structures to ensure continued progress in scientific and technological evolution. These units are **responsible for identifying new research areas, technological and process initiatives** to improve service levels, within the individual operating companies. For example, the **water companies** direct experimentation and research in technologies for improving wastewater treatment; satellite systems for monitoring infrastructure for leaks and energy efficiency

in water treatment plants. Over recent years, **the companies of the electrical area** have engaged in research projects for continuity in distribution services, through development of algorithms and protocols to identify critical nodes in the network, optimize network configuration, and limit peak demand to predefined values. In the environment area, Group companies engage in research on waste treatment, composting and topics regarding waste-to-energy, and also search out and apply the best technologies for limiting environmental impacts from their activities (see the section *Research*, in *Environmental issues*).

### THE REGULATORY AUTHORITIES AND ACEA: PRELIMINARY INVESTIGATION, BONUSES, SANCTIONS

The **Italian Regulatory Authority for Electricity Gas and Water (AEEGSI)** establishes mechanisms of bonuses and penalties for the companies operating in the markets for the duration of their monopoly licenses, with the aim of improving their performance. The Authority sets yearly standards concerning the number of interruptions in service and their duration, as a basis for evaluation. In 2014, **AEEGSI awarded Acea Distribuzione a premium of around 10,000 euros for having regained improved continuity of service for low-voltage (LV) current users. (Around 341,000 euros of penalties** will be distributed over the coming two years, but some of these could be forgiven in the case that the company demonstrates improving performance of continuity, according to specific indicators). Acea was also awarded **201,000 euros in incentives for reduction in the number of service interruptions for medium-voltage (MV) customers**. Still regarding continuity of electrical service in 2013, Acea Distribuzione remitted **1.08 million euros as indemnity** to customers and **penalties** imposed by the Electrical Sector Equalization Fund in reference to prolonged interruptions, and **87,000 euros** for excess of standards set for MV users.

In 2013, AEEGSI initiated a sanctions proceeding against Acea Distribuzione for observed violations of procedure in the **addition of measures**, serving in the regulation of physical and economic aspects of services (Resolution 300/2013/S/EEL). In this regard, Acea Distribuzione is still waiting for the outcome of the AEEGSI analysis of the **proposal of undertaking** presented by the company, which in fact offered to meet the conditions set by the Authority for conformity with the regulations.

In February 2014, the Authority launched a sanctions procedure (Resolution 62/2014/S/EEL) against Acea Distribuzione for investigation of potential violations concerning installation of electronic LV consumption meters: the company presented an argument in defence in May and the proceedings are still in course.

Finally, in 2013, the Authority proposed financial sanctions of **517,000 euros** (Resolution 512/2013/S/EEL) against Acea Distribuzione for violations concerning documentation of interruptions in service on the part of the electrical distribution companies. In this regard, the company is waiting for decision on its appeal, presented to the Lombardy Regional Administrative Court.

On 17/04/2014 (Resolution 174/2014/S/EEL), AEEGSI closed a procedure initially launched in 2012 (Resolution 462/2012/S/EEL). The 2012 procedure accused the company of failure to respect the proper period of billing for certain clients provided enhanced protection, and the emission of billing documents with estimated calculations covering the period between the date of the meter reading on the part of the distributor and the date of emission of the bill (so-called “billing code”). In this case, the Authority considered the undertakings of Acea Energia sufficient to respond to the regulatory demands.

In February 2014, the **Authority for Control over Public Contracts for Works, Services and Supplies** (now ANAC) launched a preliminary investigation concerning the legitimacy of the parent company’s behaviour in relation to bidders on contracts, as per legislation on conditions of payment (Decree Law 192/2012). Acea, based on a detailed reading of the law in question, presented an argument in defence, supported by the opinion of an expert in the material.

For **street lighting** in the City of Rome, the service in 2014 was essentially in line with that of the previous year: the share of responses to breakdowns that exceed the maximums set under the contract went from 1% in 2013 to 1.2% in 2014. However, for this result, Acea was assessed a penalty of **49,200 euros** (compared to a penalty of 29,500 euros in 2013), due to the increase in total days of delay in returns to service.

Concerning litigations or penalties over **environmental matters**, involving the relevant public authorities (Arpa, Forestry Corps, etc.) see *Environmental issues* and *Environmental Report*.

# OPERATIONS ABROAD

Acea operates in the water services sector abroad in Peru, Honduras and the Dominican Republic, serving around **5 million inhabitants** overall. Given their consolidation percentages, the activities abroad have limited impact from an economic-financial standpoint, however their significant social relevance makes it important to provide concise reporting. Acea carries out the activities abroad through

special purpose companies created in partnership with local and international partners. The aim is to improve water services in situations where they are particularly lacking, with regard to its technical, management, administrative and commercial aspects. Under these circumstances, Acea ensures the training of the human resources and the transfer of know-how to the local business class.

This section offers a brief summary of the main features of the operating companies and their mission in the countries of reference, describing the projects and the social and environmental initiatives.

The new Group Code of Ethics<sup>90</sup> has been disclosed with all the foreign subsidiaries, and is available on the company website ([www.acea.it](http://www.acea.it)), in Italian and in English.

## CONSORCIO AGUA AZUL SA

Consortio Agua Azul was established with the mission of producing drinking water for the local public water company: SEDAPAL (Drinking water and sewerage service in Lima). The Consortium has built the infrastructures necessary for satisfying part of the drinking water needs in the **northern area of Lima**, in **Peru**, drawing on the surface and ground water of the River Chillón; it will maintain operational responsibility for the same until 2027, when the services will be transferred to the State.

During 2014, 46.4 Mm<sup>3</sup> of drinking water was produced, 2.2% more than in 2013, due to the greater availability of surface water (+4.8%). This provision exceeded the contracted volume by 4%.

In 2014, Consorcio Agua Azul continued its **training programme on environmental and workplace safety topics**, for all internal personnel and personnel of contracting firms. Courses were provided for the personnel of the irrigation committee, on topics concerning use of fertilizers and conversion to organic agriculture. **A total of 2,480 hours of training were provided.**

Again this year, the company welcomed students, delegations of sectorial companies and regional institutions, for a total of 386 **visits to the plants and facilities.**

In the months of March and October, as in 2013, the company organised **the practical stage of the regional course on operation of rapid filtration plants**, organised in cooperation with the National Engineering University, which regularly attracts participants from countries throughout Latin America.

With a view to its role in social responsibility, Consorcio Agua Azul **confirmed its support for**

## CONSORCIO AGUA AZUL SA

CONSORCIO AGUA AZUL SA		MAIN COMPANY AND OPERATING FIGURES	
<b>Country (Area)</b>	Peru (northern area of Lima - Cono Norte)		
<b>Inhabitants served</b>	750,000		
<b>Customer</b>	Sedapal (Drinking Water and Sewerage Service of Lima, a state-owned company)		
<b>Source of funding</b>	Shareholders' equity and bonds issued on the Peruvian market		
<b>Duration of the contract</b>	07/04/2000 – 18/06/2027		
<b>Purpose of the project</b>	BOT (Build-Operate-Transfer) project for the construction and management of the drinking water supply system which exploits the water of the River Chillón and the underlying ground water		
<b>Partners</b>	Acea SpA 25.5% - Impregilo International Infrastructure N.V. 25.5% - Marubeni Co 29% - Inversiones Liquidas S.A.C 20%		
<b>No. of employees at 31/12/2012</b>	33		
<b>Business turnover (in thousands of Euro)</b>	10.631		

**state agencies** (such as the Policia Nacional, primary schools, the ministries of Agriculture and Health), for **non-profit foundations** (such as associations for drug-addict rehabilitation), and **consumers associations.**

In order to combat the widespread phenomenon of school abandonment, it **distributed teaching materials (1,283 school kits**, up from the 975 kits distributed in 2013) **to primary schools and nursery schools** in the area. Again this year, the rucksacks distributed were created entirely from **recycled plastic**, and featured printed phrases that **promote correct use of water resources and respect for the environment.**

At Christmas, the company offered gifts of toys and candies to the children at schools in the surrounding area, children of the police forces of the zone, and of the Municipal staff. Gifts and restaurant vouchers were also given to the children of the Consorcio employees. In response to an anonymous **questionnaire on the working environment**, the employees

indicated a "100%" level of satisfaction. Health care services continued, with check-ups for all personnel, as well as a vaccination campaign against tetanus and hepatitis A and B.

In 2014, the Consorcio also **hosted high-school and university students and recent graduates for workplace experience.**

The annual evaluation by the Peruvian agency, SGS, renewed the certification for **Integrated Quality and Environmental Systems**, in keeping with standards **UNI EN ISO 9001:2008 and 14001:2004.** The relative certificates were issued with validity to 2017. The company's updated management system obtains notable results in optimised production processes and at the same time reduces environmental impact through actions for energy saving and reduced use of paper.

Throughout the year, the company continued to meet the legal and regulatory requirements concerning worker rights, safety and workplace health.

<sup>90</sup> In detail, Article 16.4 of the Group Code of Ethics (2012 edition) defines the necessary ethics of the supplies, indicating: "Acea undertakes to promote, as part of its supply activities, respect for the protection and safety conditions of its employees, a focus on the quality of goods, services and performances, respect for the environment and the pursuit of energy savings, in accordance with the principles outlined in this Code of Ethics and the law. In supply contracts with at-risk countries, defined as such by recognised organisations, contractual clauses have been introduced that involve: - self-certification by the supplier of the compliance with specific social obligations (e.g. measures that guarantee employees respect for their fundamental rights, the principles of equal treatment and non-discrimination, protection against child labour); the possibility of carrying out monitoring activities at production units or operating sites of the supplier company in order to verify the fulfilment of these requisites."

## AGUAZUL BOGOTÀ SA ESP

Aguazul Bogotá, controlled by Acea SpA with 51% of shares, ended its contracted activities in Colombia at the close of 2012. The company remains in existence in order to participate in international initiatives, and **is present in Peru** through its 60% holdings in **Consortio Aguazul Bogotá-HCI**.

At the close of December 2014, Aguazul Bogotá won the tender for business management of water services for the city of Trujillo, Peru, over a one-year period, as lead company of a consortium with Peruvian partners HCI and Ferconsac. The consortium is currently being structured and the contract activities will begin in 2015.

## CONSORCIO AGUAZUL BOGOTÀ-HCI

Aguazul Bogotá and the Peruvian HCI Group established Consortio AZB-HCI, which manages commercial services in the **northern area of Lima, Peru**. The contract, commencing on 1 July 2010, has a three-year duration and includes the management of the billing cycle, maintenance of meters, updating of the customer database and the installation of new meters.

The consortium completed activities for meter installation in 2012, with a total of **9,325 new meters installed**.

In 2014, the Consortio continued an active role in **awareness campaigns** with the local population on the value of water resources and the importance of measuring consumption. The Consortio engaged in **social support for staff** who experience situations of family conflict, working to reinforce family ties and promote the importance of the parental role, by means of events with videos, focused meetings, and distribution of literature.

**Staff training courses** were carried out, on

## CONSORCIO AZB- HCI (CONAZUL) – MAIN COMPANY AND OPERATING FIGURES

<b>Country (area)</b>	Peru (northern area of Lima)
<b>Inhabitants served</b>	2,500,000
<b>Customer</b>	Sedapal (State-owned drinking water and sewerage service of Lima)
<b>Duration of the contract</b>	01/07/2010 – 31/12/2014
<b>Purpose of the project</b>	Business management of water services, installation of water meters
<b>Partners</b>	Aguazul Bogotá 60%, d HCI 40%
<b>No. of employees at 31/12/2012</b>	382
<b>Business turnover (in €'000s)</b>	6,432

*Note: Acea SpA holds 51% of Aguazul Bogotá*

topics of **environmental impact, workplace health and safety, and quality of business service**. Particular attention was also given to topics of road safety, with the offer of practical and theory courses. Staff and their dependents were provided with **medical check-ups, and lessons on correct posture in the work environment** were offered.

At 2014, the human resources totalled 382 persons. The Consortio respects Peruvian law on Workplace and Social compartment and

adopts **company polices for the safeguard of worker rights and dignity**.

The Consortio continued its practice of economic support to dependents, providing personal loans for health expenses, purchase of safer vehicles, and education for family members, as well as offering scholarships. For motivation of the human resources, the company awards prizes to the best workers in each quarter, and provides Christmas food packages.

## AGUAS DE SAN PEDRO SA

Aguas de San Pedro (ASP) is the holder of the thirty-year contract for the management of the integrated water service for the city of **San Pedro de Sula, Honduras**. The company has launched an important work programme for increasing and improving the water service. The programme provides for total coverage of the city with continual water service, and execution of works for catchment and treatment of sewer waters. The number of customers served in 2012 came to 114,887, 74% of which are supplied with meters. The coverage of the drinking water service continued at 99%, while that of the sewerage service was 83% of the population. Water production came to 80.6 Mm<sup>3</sup>, in slight decline from 2013 (81.4Mm<sup>3</sup>).

## AGUAS DE SAN PEDRO SA – MAIN COMPANY AND OPERATING FIGURES

<b>Country (area)</b>	Honduras (San Pedro Sula)
<b>Inhabitants served</b>	500,000
<b>Customer</b>	Municipal Authority
<b>Source of funding</b>	Shareholders' equity and loans from commercial banks
<b>Duration of the contract</b>	01/02/2001 – 01/02/2031
<b>Purpose of the project</b>	Concession of the integrated water service for the city of San Pedro de Sula
<b>Partners</b>	Acea SpA 31%, IREN SpA 30%, Astaldi SpA 15%, Ghella SpA 15%, Three Comercial 5%, C.Lotti & Associati 4%
<b>No. of employees at 31/12/2012</b>	417
<b>Business turnover (€'000s)</b>	23,194

In 2014, the company continued its **social support initiatives** and commitment to **safeguard the environment**, dedicating itself in particular to the conservation of the **El Merendon Nature Reserve**, declared a protected zone for the withdrawal of water for San Pedro Sula. The company completed various measures in these regards, including **progress towards completion** of the “Merendon” **reforestation** project, launched in 2004. This project features the involvement of 67 agricultural producers, and the participation of Aguas de San Pedro staff. The company also continued its **campaigns for fire-protection**, which in 2014 involved 48 hectares of land. The company also cooperates with the education institutions: in 2014, representatives provided 184 hours of training over 11 days, for 212 agricultural producers. Over the course of the year, the company implemented 100% of the **workplace health**

**and safety plan**, as provided under the *Sistema Médico de Empresa SME-IHSS-ASP*, and won the prize for **best company preventive health plan**. Implementation of the plan included medical and clinical check-ups, particularly for women. There are also awareness campaigns concerning breast cancer, reduction of salt and tobacco consumption; workshops on nutrition and weight control; and vaccination campaigns (hepatitis A and B, tetanus, other). Finally, the company organises sports competitions for staff and their families. The initiatives in favour of the personnel include a financial **assistance programme**, with loans at favourable rates under an agreement with Banco Fichosa. The company continued its work in **social support**, offering Christmas gifts of toys to 500 children in the most disadvantaged parts of the city, in a programme supported by some of the company staff members.

To promote the culture of environmental respect and stimulate creativity, the company organised a **staff competition for Christmas decorations using only recycled materials**, with award of prizes. Also for the Christmas season, the company organised recreation events for staff and their families, as part of the general programme for company integration and socialisation. The first half of 2014 saw specific activities to continue and improve the **Quality Management System for the Laboratory**, which is implemented and certified to standard **ISO 9001:2008** and **ISO/IEC 17025:2005**. In particular, the company took measures to verify the **effectiveness of laboratory activity**. In March 2014, the EMA certification agency (Entidad Mexicana de Acreditación) conducted an audit of the Quality Management System, which resulted in certification of conformity to the norms.

## ACEA DOMINICANA SA

Acea Dominicana handles the commercial management of the water service in the **northern and eastern areas of Santo Domingo, Dominican Republic**. The activities include the management of customer relations, the billing and estimate cycle, installation of new meters and work management relating to new connections. The project represents one of the first experiments for private participation in the water services of the Dominican Republic.

On 21/01/2014, Acea Dominicana signed a **contract addendum** with the client, Corporación del Acueducto Y Alcantarillado De Santo Domingo (CAASD), governing a 20-month agreement for financing, supply and installation of 30,000 meters for new customers and replacement of meters for 10,000 existing customers. Acea Dominicana also agreed to calibrate and maintain the entire system of meters over the contract period (30,000 existing meters and 30,000 new installations). The addendum also provided for **extension of the overall contract for a further seven years, to expiry on 30/09/2023**.

## ACEA DOMINICANA SA – MAIN COMPANY AND OPERATING FIGURES

<b>Country (area)</b>	Dominican Republic (north and east areas of Santo Domingo)
<b>Inhabitants served</b>	1,500,000
<b>Customer</b>	Corporación del Acueducto y Alcantarillado de Santo Domingo (CAASD)
<b>Duration of the contract</b>	01/10/2003 – 01/10/2023
<b>Purpose of the project</b>	Commercial management of water service
<b>Partners</b>	Acea SpA 100%
<b>No. of employees at 31/12/2012</b>	163
<b>Business turnover (€'000s)</b>	3,108

Once again during 2014, Acea Dominicana continued its **campaign to raise the awareness of the population** on the importance of **wise use of water**, implemented with the **support of qualified staff** and involving **weekly meetings with local representatives**. The programme succeeds in creating awareness in the local population on the correct use of water and the importance of proper payment in order to permit the local water company to improve the quality of services.

The company continued its **Plan Deuda Cero** (Zero Debt Plan) in Boca Chica, one of

the poorest parts of the capital city, targeted at customers with accumulated arrears. Once again this year, the campaign was supported by interviews and feature stories presented on the main Dominican television channels.

Acea Dominicana operates in full adhesion to the Dominican labour law and law on social policies. It has adopted **company policies for the safeguard of worker rights and dignity**. In keeping with these policies, the company has renewed the private insurance plan for staff and provided for an employment leaving fund, both of which initiatives are not required under Dominican law.





Acqua potabile, trattata e refrigerata (DLgs 181/2003)

Acqua a erogazione gratuita

(Utilizzare contenitori massimo da 1 Lt)

NATURALE



FRIZZANTE



aceea



L'acqua  
del Sindaco,  
buona e sicura.  
Oggi anche  
frizzante.



# 2014

## ENVIRONMENTAL ISSUES

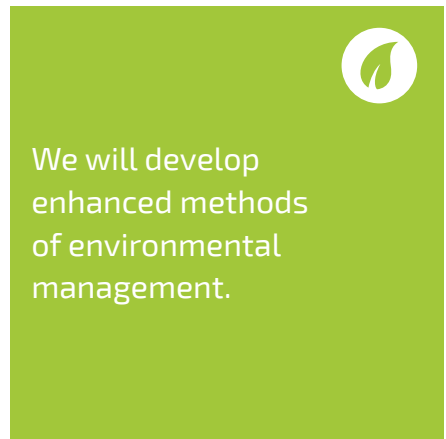
"Water Houses are part of the investment programme over the next three years to innovate our networks and the integrated water service in Rome and Province. We believe very much in the new opportunities lying ahead of us in this sector, based on new technologies and innovative work processes".

*Alberto Irace*  
*Acea CEO*

Inauguration of Water House at Acea's Headquarters,  
piazzale Ostiense  
October 2014

# ENVIRONMENTAL PROTECTION IN ACEA

Acea recognise the centrality of environmental protection to its overall development strategy, and places maximum importance on the social fabric. The company develops links with local social structures, in relationships of reciprocal influence and under principles of sustainable development. The company *Code of Ethics* states these orientations clearly, and they are applied in concrete manner in the operations (see *2014–2018 Sustainability Plan* and *Medium-term Goals and Management Systems*).



## REDUCTION OF CARBON DIOXIDE EMISSIONS

One of the important challenges facing companies that engage in policies of sustainable development is the **containment of greenhouse gas emissions**, particularly CO<sub>2</sub>, given the massive and inherent production of the gas through fossil fuel consumption.

The **Paris Protocol of February 2015 – A blueprint for tackling global climate change beyond 2020**, states: “According to the latest findings of the Intergovernmental Panel on Climate Change (IPCC), without urgent action, climate change will bring severe, pervasive

*and irreversible impacts on all the world’s people and ecosystems. Limiting dangerous rises in global average temperature to below 2°C compared with pre-industrial levels (the below 2°C objective) will require substantial and sustained reductions in greenhouse gas emissions by all countries.”*

For a number of years, Acea has followed a policy of containment of CO<sub>2</sub> emissions. In keeping with this, the company **participates in the international Carbon Disclosure Project** (CDP). The Group joined the project was in 2004, considering it a stimulus to rigour and methodology in the reduction and mitigation of emissions, and for diffusion of awareness on the

issue. The declaration of the industrial processes and quantities of CO<sub>2</sub> in play permits the Group to respond to the challenges of industrial management with low or “zero” rates of CO<sub>2</sub> emissions.

Over the past 10 years, Acea has undertaken initiatives such as the use and production of green energy, increase in efficiency of internal uses of energy, and modernisation of its vehicle fleet. With this, Acea has reached **one of the lowest values** of CO<sub>2</sub> intensity (CO<sub>2</sub>/euro billed) **in the Italian utilities sector** (see in-depth box).

### COMPLETION OF THE CLIMATE NEGOTIATIONS IN PREPARATION FOR THE PARIS 2015 CONFERENCE

In **December 2014, at Lima, 195 nations completed the negotiations** for the final document of **UN Climate Change Conference**. The text calls on the governments to provide “quantifiable and equitable” undertakings for the reduction of emissions. It serves as the basis for the upcoming Paris Conference, scheduled for December 2015, which is expected to ratify a new binding accord applicable to all parties, as successor to the previous Kyoto accord. Climate experts will evaluate the impact of the measures identified under the Lima accord, to ensure that they are sufficient to hold the increment in global temperatures to less than 2° C (“below 2°C objective”).

The Lima document was declared approved, after two weeks of negotiations, by the Meeting Chair, Peru’s State Minister for the Environment, Manuel Pulgar Vidal, before the plenary assembly of delegates.

### ACEA IMPROVES ITS CARBON DISCLOSURE RATING

The 9<sup>th</sup> edition of **CDP 100 2014 Italy Climate Change Report** was presented on 05/11/2014 at the Milan seat of the Borsa Italiana. The report is prepared by international experts, and provides an evaluation on climate change topics, elaborated from information provided by around 100 Italian companies participating in the “Carbon Disclosure Project”.

The report provides a ranking in terms of the transparency of communications on corporate practices against climate change (“disclosure”, rated from 0-100), and the company’s demonstrated results in containing the **carbon footprint** in its relevant activities (“performance” – rated D-A).

**Acea is a long-standing participant in the Carbon Disclosure Project. Once again, the company improved its rating**, going from an overall score of 88B in 2013 to a rating of **92B** in 2014.

In the **utilities sector**, which includes nine companies, **Acea ranked third from the top**, after Enel and Snam, and was noted in particular for its policies on containing CO<sub>2</sub> emissions.

For more information on the *CDP 2014 Italy 100 Climate Change Report* see:

<https://www.cdp.net/CDPResults/CDP-italy-climate-change-report-2014.pdf>

## BIODIVERSITY: AN ASSET TO PROTECT

A further global challenge alongside the menace of global warming is to address the progressive loss of biological wealth due to the disappearance of species, and search to invert the trend.

Biodiversity is a fundamental factor essential to the life of man, resulting in a form of ecosystem richness, where the sum of benefits from the individual species into a sort of overall super-system of all living things generates a multiplier effect in environmental benefits.

**Acea is aware** of addressing the global challenge, where responses do not lend themselves to precise measurement. However, while awaiting broader agreement on strategies and shared lines of action, Acea already takes concrete action to safeguard **biodiversity**, within its territories of operation, including:

- **Containment of impact from overhead high and medium voltage (HV, MV) lines on bird species** – Acea pursues

this action especially in areas of special natural value, in collaboration with the area protection bodies and sectorial experts, seeking the best technological answers to the numerous problems caused to birdlife by the transmission lines in such protected areas;

- **Protection of the peregrine falcon**, in collaboration with Ornis Italica, a non-profit organisation active in the study and safeguard of bird life - This is a long-standing partnership, begun around 2000-2003, which has led to innovative measures in support of reproduction of raptor species. These include the use of HV transmission pylons as falcon nesting sites, and the recent provision of an 80-metre high water reservoir, on Rome's Vergine Aqueduct, for the nesting of peregrine falcons. The success of initiatives started as long ago as 2008, and continued over time, is seen in the extraordinary increase in numbers of the species, which is classified "vulnerable" by the International Union for the

Conservation of Nature (ICUN). A **webcam** placed at a nest, **accessible at [www.birdcam.it](http://www.birdcam.it)**, permits the public to follow the reproductive season year after year: from the laying of eggs (late February) to the departure of the fledglings (early June).

- **Protection of springs and the surrounding areas**, which has made it possible to maintain conditions of elevated biological variety and richness in vast areas of natural interest - Acea also conducts **constant monitoring of impacts on recipient bodies of water**, again providing constant investments of skills and advanced technologies in contribution to the preservation of natural capital of extraordinary value.

### PEREGRINE FALCON NESTING SITE AT SALONE, ROME

In 2005, after an absence of around 30 years, the peregrine falcon (*Falco peregrinus*) returned to nest at Rome. In 2008, thanks to a joint undertaking of Acea and the Ornis italica ornithological association, the birds began to nest on a water tank of the Vergine Aqueduct, in the Salone zone at the edge of Rome. In 2014, the original couple of falcons, named Appio and Vergine were joined by a young male who is the offspring of different pair of falcons, named Aria and Vento, that nest on a building of the Faculty of Economy and Commerce of the University of Rome 'La Sapienza'. According to the ornithologists, the new male, Alex, caused a disturbance in the pairing of the original couple, with consequent reduction in reproductive success, seen in the maturation of a sole fledgling from the three eggs that were laid.

The story for 2014 was once again followed with great interest by many Italians and others abroad, as the reproductive season unfolded. The Facebook page (<http://www.facebook.com/birdcam.italia>) created for Appio and Vergine is heavily followed, and received over 37,000 "likes" in just a few months.

The site [www.birdcam.it](http://www.birdcam.it) also attracts thousands of visitors, especially during the days of laying and hatching the eggs.



## ENVIRONMENTAL MANAGEMENT

Over a period of many years, Acea Group has systemised its approaches to management, including initiating a path of monitoring and accounting for environmental performance. The first "eco-balance" reported by Acea dates back to 1994, and the first Environmental Report to internationally accredited standards dates to 1999 (ENI Enrico Mattei Foundation Guidelines). Over the years, the monitoring and reporting systems have continued to evolve, bringing about

a progressive **systemisation of environmental management**, with implementation of ISO standard 14001, in some cases further evolved towards EMAS registration EMAS (*Eco-Management and Audit Scheme*). The publication of the Acea **Policy on Quality Environment, Safety and Energy**, and in 2014, the institution of the Work and Environment Safety Unit within the parent company's Safety and Protection Division, **provided the groundwork for implementation of a system of integrated Quality, Environment,**

**Safety and Energy**, certified in December 2014. The system is the fulcrum of an organisational and management model operating in synergy with the Environmental Legislation Unit of the parent company Legal and Corporate Affairs Division. The unit is responsible for coordinating environmental compliance and indicating general guidelines for the Group companies, so that their approaches to environmental protection conform to the principles of the *Code of Ethics*.

## ENVIRONMENTAL PROTECTION IN THE GROUP CODE OF ETHICS

Article 20 of the Code of Ethics is devoted to Environmental protection:

*"Acea is mindful of environmental concerns and aware of the strategic role of the environment as an instrument for enhancing corporate value. As such, it considers responsible and scrupulous conduct with regard to the protection of the environment, health and safety, as integral to the role of each and every employee and collaborator. Acea is committed to adopting strategies targeted at the continuous improvement of results in the area of environmental protection, focusing its efforts on preventing pollution and minimising environmental risks and impact, and acting in accordance with the following principles:*

- *the sustainable management of natural resources and energy, guaranteeing their correct usage and increasing recourse to renewable sources, focusing particularly on reducing waste and the rational use of resources also by consumers;*
- *planning and implementing production processes and company activities with criteria aimed at preventing pollution and possible accidents, reducing environmental impact, safeguarding the health and safety of employees and the population, and adopting, to this end, the best available techniques on the market and verifying their reliability in the operations and maintenance of the plants;*
- *defining specific environmental goals and improvement programmes aimed at minimising significant environmental impact;*
- *the use of suitable control instruments and monitoring systems on the main environmental aspects generated by its operations and on the adopted improvement programmes;*
- *adopting certified environmental and quality management systems;*
- *promoting internal environmental awareness and training activities, pursuing the growth and spread of ecological awareness and a sense of responsibility;*
- *annually drafting the Sustainability Report, also understood as an essential information and communications tool, in terms of both quantity and quality, as regards the actions undertaken and planned by Acea to protect the ecosystem and minimise environmental risks;*
- *collaborating with institutions, Public Administration and associations and initiatives designed to protect and promote the environment."*

Acea Group's strong push towards systemisation of environmental management has brought the very positive result that the large part of plants and production processes are now conducted in **conformity with the UNI EN ISO 14001:2004 standard**, and in some cases **EMAS registration** (also see *Corporate Identity, Management Systems* for all certifications of Group companies active in 2014, or in implementation stages). The principles of continuous improvement are a strong point of Acea management, favouring dynamics of effective environmental protection with resultant reduction in risks and costs. The planning process foreseen under ISO System 14001 calls for periodic establishment of new efficiency thresholds in environmental management. The ISO system also calls for monitoring of performance indicators, permitting evaluation of the directions undertaken and early observation of warning signals, which can then be corrected in timely manner.

The operating companies are committed to very high standards for efficient management of environmental matters, but there can still be situations, generally caused by external circumstances, that generate non-conformity, which can then proceed to intervention by the **competent Regulatory authorities**. Over 2014 the Group was subject to around **700 environmentally related actions (citations and fines)**, which led to payment of 50 fines,

for an economic value of **around 112,500 euros** (73,139 euros allocated to Acea Ato 2 and 34,000 euros to Publicacqua).

### MANAGING AND MONITORING OPERATIONS THAT HAVE AN IMPACT ON THE ENVIRONMENT

Acea monitors the activities and processes that have the potential of environmental impacts. The Group pays particular attention to management of inherently dangerous materials present in the productive plants, including:

- **Asbestos** – used as construction material until the 1970s, then banned and subject to strict regulations where still present;
- **Sulphur hexafluoride** – use in high-voltage electrical plants as insulation fluid;
- **Dielectric oil** – used in power transformers as isolating and cooling fluid.

Acea, in adherence to the Italian Ministerial Decree of 06/09/94, named an **Asbestos Officer**, with responsibilities for monitoring and coordinating maintenance activities for buildings and plants documented as presenting asbestos risks. Prior to any sort of intervention in these structures, the Officer provides for on-site surveys and orders the chemical analyses necessary for quantitative assessments, then giving instructions on the ways works can be conducted, according to the results. This procedure ensures a high level of safety from the outset, and progressive establishment of remedial responses should the ongoing

monitoring then reveal that asbestos is truly present.

Group companies manage **sulphur hexafluoride** with maximum care to avoid leaks and uncontrolled atmospheric emissions, given that the material results in strong greenhouse effects. Dedicated sensors and close monitoring of maintenance are used to keep control over potential environmental impacts, particularly during maintenance operations.

For the Rome and Formello electrical distribution networks, operated under government concession, Acea maintains maximum attention to the power transformers, which are essential components to the operation of the entire system. **Mineral oil** has always been used as the insulating and cooling fluid for transformer working parts, due its positive technical characteristic. However, mineral oil also presents critical environmental risk due its characteristics as a refined petroleum product. For this, at the end of 2014, **began experiments using a new vegetable-origin oil** that presents characteristics similar to mineral oil, but **with the advantage of almost 100% biodegradability**. The experiments involve **six MV/LV transformers of up to 630 kVA and filled with the new vegetable oil**, which are being put in operation in 2015 and then kept under monitoring to determine the feasibility of extending the application to other equipment (see also the report section *Research*).

## ENVIRONMENTAL EXPENDITURE

The Group reports **environmental expenditure** limited to the companies that maintain an environmental reporting system (around 90% of the total). At the European level, such expense are defined as “*the cost of measures adopted by a*

*company, directly or via third parties, for the purpose of preventing, reducing or repairing damages to the environment deriving from its operations*”<sup>91</sup>.

TABLE 67 - ENVIRONMENTAL EXPENDITURES OF THE MAIN OPERATING COMPANIES (2012-2014)

GROUP COMPANIES	INVESTMENTS (millions of Euro)			CURRENT EXPENDITURE (millions of Euro)		
	2012	2013	2014	2012	2013	2014
Acea Produzione	15.09	1.05	0.86	0.79	0.77	0.53
A.R.I.A. Group (*) and SAO	0.0	0.0	4.7	7.91	8.67	9.83
Aquaser (**)	0.81	0.19	0.14	1.05	0.91	1.00
Acea Distribuzione	0.71	0.40	0.62	0.40	0.22	0.33
Water services (***)	30.67	26.90	23.97	1.30	1.33	1.27
<b>Total</b>	<b>47.28</b>	<b>28.54</b>	<b>30.29</b>	<b>11.44</b>	<b>11.90</b>	<b>12.96</b>

(\*) Expenditures concern two waste-to-energy thermal plants.

(\*\*) Expenditures refer to Kyklos and Solemme plants.

(\*\*\*) LaboratoRI, Acea Ato 2, Acea Ato 5.

European Commission Recommendation 2001/453/CE also lists **waste-management costs** as environmental expenditures. The **Acea Ato 2 and Acea Ato 5 companies** produce

large amounts of **sewage-treatment sludge** and other industrial residues, for which in 2014 they spent **around 26.8 million euros for disposal**, included in the reporting at Table 67.

The environmental expenditures of the water companies Publicacqua, Acque, Acquedotto del Fiora, and Umbra Acque are described in the section *Water Companies' Data Sheets*.

91 See European Commission Recommendation 2001/453/CE.

# ENERGY AREA

## REPORT BOUNDARY

This section deals with Acea Reti e Servizi Energetici, Acea Distribuzione, Acea Produzione and the A.R.I.A. waste-to-energy plants. The waste-to-energy activities are described in detail in the section *Environment Area*.

The Acea Group is vertically integrated through the entire electrical energy business chain. The following activities are carried out by independent companies that: i) meet obligations of neutrality in infrastructure management, essential for the development of a free energy market, ii) prevent discrimination in access to commercially sensitive information, and iii) avoid crossed subsidies between the various sections of the production chain. These companies carry out the

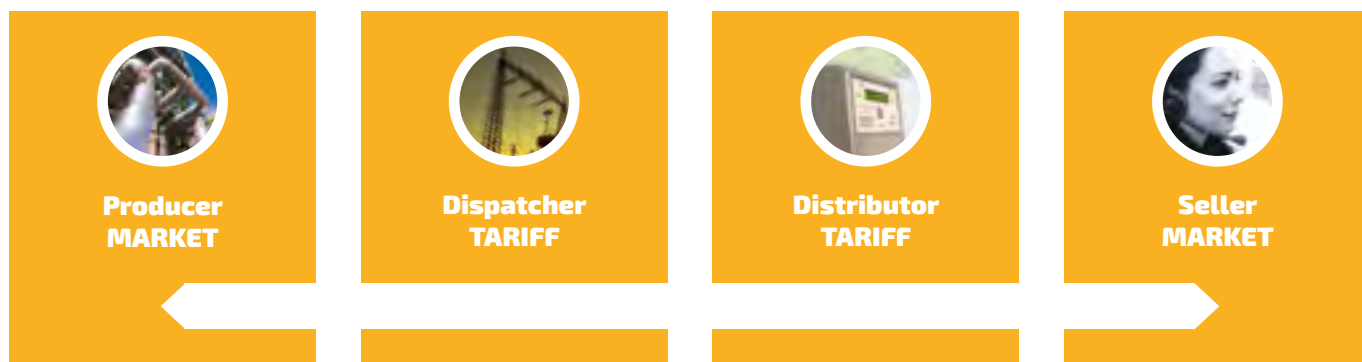
following activities:

- **production of** electricity and heat;
- **distribution** of electricity in the areas of Rome and Formello, including management of street lighting;<sup>92</sup>
- **sales** of electricity, heat and gas.

In 1999, Italy began a process of transforming the electricity market, with the introduction of some

mechanisms imported from English-language countries, which had developed and applied them with success over the preceding decade. The current electricity chain descends from this transformation, and provides that consumers receive electricity through the participation of four distinct segments, managed by different actors, which operate in separate but integrated manner in the value production chain (see Chart 35).

CHART 35 – THE ELECTRICITY CHAIN



The system is complex, and after the passage of 16 years suffers from critical problems, due in part to the nature of the goods produced. Electricity represents the most sustainable energy vector at society's disposal, yet has strong impacts at the socio-economic level, requires heavy infrastructure investment, and requires support for research and development activities. For success, the sector is one that requires both market forces and the entrepreneurial capacity of the individual actors, and regulatory action by a public agency that ensures the correct behaviour of the many actors. Acea operates in almost all segments of the chain, as electrical energy producer, distributor for Rome and Formello, and seller throughout the Italian territory.

## ENERGY GENERATION: FOSSIL AND RENEWABLE ENERGY SOURCES

### ELECTRICAL GENERATION BY THE GROUP PLANTS

Acea produces electricity primarily through hydroelectric plants and waste-to-energy plants

operating on Secondary Solid Fuel (RDF) – a partially renewable, refuse-derived primary energy source.

Acea Produzione carries out generation from (renewable) hydroelectric sources and from classic thermoelectric plants using fossil sources. The overall generator inventory is composed of:

- 7 hydroelectric plants in Lazio and Abruzzo (around 120 MW),
- 2 thermoelectric plants within the territory of the municipality of Rome: at Montemartini (approximately 80 MW) and Tor Di Valle (approximately 145 MW),

for a total of **around 345 MWe of installed available power**.

Waste-to-energy generation is instead carried out by A.R.I.A., which ensures production from **two waste-to-energy** plants situated at San Vittore, Lazio and Terni. The gross overall electrical power currently available reaches **37 MWe, projected to increase to 50 MWe** with the completion of the revamping of Line 1 of the San Vittore plant, where works are still in full course. The framework of installed power generation is completed by a small **photovoltaic park** of

approximately **14 MWe**, which is held under the responsibility of the company ARSE (see Table 73).

### ELECTRICAL ENERGY PRODUCED

**Gross electrical energy production in 2014** came to around **808 GWh, an increase from the preceding year** (+3% over the 786 GWh of 2013), thanks primarily to the **increase in production** from the Terni waste-to-energy plant (+42%), with around 82 GWh produced, compared to the 58 GWh of 2013.

The data reveal that the share of energy produced **from renewable sources**, around **647 GWh**, is strongly dominant, at **around 80% of the total**, with contributions of **495 GWh from hydroelectric, 136 GWh from waste-to-energy and 16 GWh from photovoltaic** (see Table 68).

Considering the energy from "green" waste-to-energy generation, almost 47% of the production from this type of plant is **renewable**, meaning derived from combustion of the biodegradable fraction of waste, used as the primary source. The **renewable share** of the secondary solid fuel (RDF) arriving at the San Vittore del Lazio plant results as producing **around 50% of the total waste-to-energy generation**, while at Terni

92 Since 2013, the development and management of public lighting plants and services are headed by Acea Illuminazione pubblica SpA.



the yield from this share is **around 41%**. The average result of around 47% from renewable sources is confirmed by continuous sampling of arriving material, throughout the 2014 period.

**TABLE 68- ELECTRICAL ENERGY PRODUCED, PER PRIMARY ENERGY SOURCE (2012-2014)**

PRIMARY ENERGY SOURCE	2012	2013	2014
	TJ (GWh) (*)		
Gas oil	7.0 (1.9)	4.7 (1.3)	0.2 (0.05)
Natural gas (combined cycles and co-generation)	37.4 (10.4)	37.1 (10.3)	36.7 (10.2)
<i>Waste-to-energy (in 2014, around 53% of total)</i>	392.9 (109.1)	505.8 (140.5)	543.2 (150.9)
<b>Total thermoelectric</b>	<b>437.1 (121.4)</b>	<b>547.6 (152.1)</b>	<b>580.0 (161.1)</b>
Hydroelectric	1,298.9 (360.8)	1,788.1 (496.7)	1,782.7 (495.2)
<i>Waste-to-energy (in 2014, around 47% of total)</i>	392.9 (109.1)	430.6 (119.6)	490.0 (136.1)
Photovoltaic	217.5 (60.4)	62.3 (17.3)	55.8 (15.5)
<b>Total renewable</b>	<b>1,909.3 (530.4)</b>	<b>2,281.0 (633.6)</b>	<b>2,328.5 (646.8)</b>
<b>Grand total</b>	<b>2,346.4 (651.8)</b>	<b>2,828.6 (785.7)</b>	<b>2,908.5 (807.9)</b>

(\*) 1 GWh=3,6TJ

(\*\*) In 2012, roughly 32 MWe of available photovoltaic power was in large part sold.

## THERMAL ENERGY PRODUCED

In 2014, the Tor di Vale thermoelectric plant produced approximately **92 GWh of thermal energy**, in part from gas turbines engineered for cogeneration (electricity/heat generation), but primarily from traditional boilers.

**TABLE 69 – GROSS HEAT PRODUCED AT TOR DI VALLE PLANT (2012-2014)**

GROSS HEAT PRODUCED (kWht)	2012	2013	2014
Tor di Valle thermoelectric Tor di Valle	87,957,901	99,332,154	92,026,747
<i>Gas turbine group in cogeneration</i>	<i>13,539,661</i>	<i>15,884,409</i>	<i>15,163,198</i>
<i>Auxiliary boilers (Galleri type)</i>	<i>74,418,240</i>	<i>83,447,745</i>	<i>76,863,549</i>

The heat generated serves around **36,500 residents** of southern Rome (Mostacciano, Torrino, Mezzo Cammino) by means of a district heating grid connected to a total building volume of 3,352,000 m<sup>3</sup>.

## EFFICIENCY OF THE TOTAL ELECTRICAL GENERATION SYSTEM

The average gross efficiency of the total Acea production system for **energy conversion** from primary sources to electricity, estimated as the ratio of gross energy produced (in 2014 recorded at 808 GWh) and the energy input (roughly 2.191 GWh in 2014), **results as 37%** (see also Table 70).

$$E_{\#} = \frac{(808)}{(2,191)} \times 100 = 37\%$$

where  $E_{\#}$  is the average gross conversion efficiency

**Average efficiency less plant self-consumption** and initial transformation losses is as follows:

$$E_{\#} = \frac{(756)}{(2,191)} \times 100 = 35\%$$

**TABLE 70 - POTENTIAL ENERGY PER PRIMARY ENERGY SOURCE USED (2012-2014)**

PRIMARY ENERGY SOURCE	2012	2013	2014
	TJ (GWh) (*)		
Gas oil	27.0 (7.5)	18.4 (5.1)	1.6 (0.5)
Natural gas (combined cycles and co-generation)	141.1 (39.2)	154.1 (42.8)	142.1 (39.5)
Waste-to-energy	3,273.8 (909.4)	4,419.72 (1,227.7)	5,150.3 (1,430.7)
Hydroelectric	1,571.7 (436.6)	2,151.0 (597.5)	2,195 (609.7)
Photovoltaic	1,553.9 (431.6)	444.9 (123.6)	398.6 (110.7)
<b>Grand total</b>	<b>6,567.5</b> <b>(1,824.3)</b>	<b>7,188.1</b> <b>(1,996.7)</b>	<b>7,887.6</b> <b>(2,191.1)</b>

(\*) 1 GWh=3,6TJ

The efficiency of the single plants is shown in Table 71.

**TABLE 71 - AVERAGE OUTPUT FROM ACEA ELECTRICAL ENERGY PLANTS (2012-2014)**

PLANT	AVERAGE OUTPUT 2012 (%)	AVERAGE OUTPUT 2013 (%)	AVERAGE OUTPUT 2014 (%)
Tor di Valle (combined cycle - CCGT)	n.a (*)	n.a.(*)	n.a.(*)
Tor Di Valle (cogeneration)	72.9	69.9	70.6
San Vittore	23.2	20.9	20.0
Terni	<i>repowering</i>	18.7	18.3
Montemartini	26.0	25.4	11.3
Salisano	88.0	87.9	88.0
Sant'Angelo	70.5	73.4	70.3
Orte	98.6	98.6	98.6
Castel Madama	82.6	83.0	82.8
Mandela	91.4	91.6	91.2
Smaller plants	62.1	62.7	61.0
Photovoltaic plants	14.0	14.0	14.0

(\*) The extremely low levels of production measured in 2012 prevented calculation of a significant indicator of yield; over 2013 and 2014 there was no production from the combined cycle.

Table 72 and subsequent tables provide descriptive data on Acea's thermoelectric and hydroelectric plants. The waste-to-energy plants are described in a dedicated section (also see *Environmental Accounts*).

**TABLE 72 – THE ACEA PRODUZIONE ELECTRICAL PLANTS**

HYDROELECTRIC PLANTS	THERMOELECTRIC PLANTS
A. Volta Plant, Castel Madama (Rome) gross power 9.4 MW	Tor di Valle plant: combined cycle section(*) (Rome) Natural gas fuel – gross power 19.3 MW
G. Ferraris Plant, Mandela (Rome) gross power 8,5 MW	Tor di Valle Plant: co-generation section (**) (Rome) Natural gas fuel – gross output 125.7 MW
Salisano Plant (Rieti) gross power 24,6 MW	Montemartini plant (Rome) Diesel fuel – gross output 78.3 MW
G. Marconi Plant, Orte (Viterbo) gross power 20 MW	
Sant'Angelo Plant (Chieti) gross power 58.4 MW	
Cecchina Plant (Roma) gross power 0.4 MW	
Madonna del Rosario Plant (Roma) gross power 0.4 MW	
<b>Grand total: gross power 345 MW</b>	

(\*) The gas turbine cogeneration unit at Tor di Valle is "open cycle", and provides district heating service to the districts of south Rome: Torrino, Mezzocammino and Mostacciano.

Acea has begun the **conversion of the Tor di Valle Plant** from cogeneration to combined cycle, from which the company foresees in **an increase in the thermal energy consumers** in the Rome Mezzocammino district.



San Vittore nel Lazio (Frosinone province), view of Waste-to-Energy plant

## HYDROELECTRIC PRODUCTION

### A. VOLTA PLANT, CASTEL MADAMA (ROME)

Plant type	Run-of-river water
Use of energy produced	Basic needs
Rated output	9.4 MW
Capacity of basin or reservoirs	148,000 m <sup>3</sup>
Available head (from concession)	40.29 m
Maximum derivable flow	25 m <sup>3</sup> /s
Gross electricity produced in 2014	27.37 GWh

### G. FERRARIS PLANT, MANDELA (ROME)

Plant type	Run-of-river water
Use of energy produced	Basic needs
Rated output	8.5 MW
Capacity of basin or reservoirs	6,400 m <sup>3</sup>
Available head (from concession)	27.15 m
Maximum derivable flow	30 m <sup>3</sup> /s
Gross electricity produced in 2014	19.75 GWh

### SALISANO PLANT (RIETI)

Plant type	Run-of-river water (aqueduct)
Use of energy produced	Basic needs
Rated output	24.6 MW
Available head	85.94 m Capore 242.50 m Peschiera
Maximum derivable flow (from concession)	5,5 m <sup>3</sup> /s Capore 10 m <sup>3</sup> /s Peschiera
Gross electricity produced in 2014	182,41 GWh

### MARCONI PLANT, ORTE (TERNI)

Plant type	Run-of-river water
Use of energy produced	Basic needs
Rated output	20 MW
Capacity of basin or reservoirs	6 million m <sup>3</sup>
Available head (from concession)	11.45 m
Maximum derivable flow	180 m <sup>3</sup> /s
Gross electricity produced in 2014	75.25 GWh

### SANT'ANGELO PLANT (CHIETI)

Plant type	Reservoir
Use of energy produced	Peak needs
Rated output	58.4 MW
Capacity of basin or reservoirs	83.30 million m <sup>3</sup> Bomba 21 million m <sup>3</sup> Casoli
Available head (from concession)	141.20 m
Maximum derivable flow	40 m <sup>3</sup> /s
Gross electricity produced in 2014	188.30 GWh

## HYDROELECTRIC PRODUCTION – MINOR PLANTS

### CECCHINA (ROME)

Plant type	Run-of-river water (aqueduct)
Use of energy produced	Basic needs
Rated output	0.4 MW
Maximum derivable flow (from concession)	1.1 m <sup>3</sup> /s
Available head	30 m
Gross electricity produced in 2014	0.98 GWh

### MADONNA DEL ROSARIO (ROME)

Plant type	Run-of-river water (aqueduct)
Use of energy produced	Basic needs
Rated output	0.4 MW
Maximum derivable flow	0.825 m <sup>3</sup> /s
Available head (from concession)	43 m
Gross electricity produced in 2014	1.12 GWh

## THERMOELECTRIC PRODUCTION

### TOR DI VALLE PLANT - COMBINED CYCLE (ROME)

Fuel type	Natural gas
Use of energy produced	Mid-merit (electricity) and district heating (thermal energy)
Rated output of a.c. generators	41.04 MW turbogas n. 1 41.04 MW turbogas n. 2 43.6 MW steam unit
Plant surface area	35,000 m <sup>2</sup>
Chimney height	30 m
Quantity of fuel consumed in 2014	0.00 kNm <sup>3</sup>
Gross electricity produced in 2014	0 GWh.
Total gross efficiency in 2014	0.00%

### MONTEMARTINI PLANT (ROME)

Fuel type	Low-sulphur gas oil fuel
Use of energy produced	Coverage of peak needs
Rated output of a.c. generators	26,1 MW turbogas n. 1 26,1 MW turbogas n. 2 26,1 MW turbogas n. 3
Chimney height	1 x 13.35 m + 2 x 20 m
Quantity of fuel consumed in 2014	45.67 kl
Gross electricity produced in 2014	0.051 GWh
Total gross efficiency in 2014	11.26%

### DI TOR DI VALLE PLANT - COGENERATION (ROME)

Fuel type	Natural gas
Use of energy produced	Coverage of peak needs (electricity) and district heating (thermal energy)
Rated output of a.c. generators	19.32 MW <sub>e</sub>
Chimney height	20 m
Quantity of fuel consumed in 2014	3.757 kNm <sup>3</sup>
Gross electricity produced in 2014	10.20 GWh
Total gross efficiency in 2014	25.83% electric only 70.60% with thermal recovery



Castel Madama, Rome province, one of the turbines in the hydroelectric plant

Table 73 reports the installed capacities, broken down by energy source. The data are essentially the same as the previous year.

**TABLE 73 – GROUP INSTALLED ELECTRICAL POWER, PER ENERGY SOURCE (2012-2014)**

ENERGY SOURCE	2012	2013	2014
	(MW)		
Gas oil	78.3	78.3	78.3
Natural gas (combined cycle and co-generation)	144.9	144.9	144.9
Waste-to-energy (*)	25	37	37
Hydroelectric	121.7	121.7	121.7
Photovoltaic (**)	46	13.5	13.5
<b>Grand total</b>	<b>415.9</b>	<b>395.4</b>	<b>395.4</b>

(\*) For 2013 and 2014 the San Vittore del Lazio plant is reported only for the two lines in operation.

(\*\*) On 28/12/2012 32.5 MW<sub>p</sub> were sold, for a remainder in 2013 of 13.5 MW<sub>p</sub>.

The availability indices for Acea Produzione plants are shown, by installation, in Table 74.

**TABLE 74 – AVAILABILITY INDICES FOR PLANTS OF ACEA PRODUZIONE (2012 - 2014)**

ENERGY SOURCE	PLANT	OVERALL AVAILABILITY (%)			SCHEDULED UNAVAILABILITY (%)			UNSCHEDULED UNAVAILABILITY (%)		
		2012	2013	2014	2012	2013	2014	2012	2013	2014
<b>Methane</b>	Tor Di Valle (combined cycle - CCGT)	95.9	95.6	100.0	0.0	0.0	0.0	4.1	4.4	0.0
	Tor Di Valle (cogeneration section)	99.4	78.4	97.5	0.0	1.1	0.0	0.6	20.5	2.5
<b>Diesel</b>	Montemartini	100.0	99.5	90.7	0.0	0.5	4.1	0.0	0.0	5.2
<b>Hydroelectric</b>	Salisano	99.3	97.7	99.8	0.1	0.2	0.0	0.6	1.8	0.2
	Sant'Angelo	92.3	94.5	97.0	4.1	0.2	2.0	3.6	5.2	1.0
	Orte	75.5	95.6	99.5	17.8	0.0	0.4	6.8	4.4	0.1
	Castel Madama	98.5	91.9	99.0	1.5	0.2	0.4	0.0	7.9	0.7
	Mandela	99.4	97.5	98.2	0.2	2.4	1.7	0.4	0.0	0.1
	Minor plants	85.2	99.7	93.9	0.0	0.0	2.0	14.8	0.3	4.1

**Note:** The figures for the hours of scheduled/unscheduled unavailability cannot be provided as the indexes are also calculated taking into account partial shutdown and load limits.

The following definitions apply in the preparation of the figures reported in Table 74:

- **Overall availability (%)** - This index refers to the period in which a plant or section thereof is available to produce energy (including periods when it was not operated, given considerations of demand from the electricity market). It is calculated as the ratio between the available energy (the difference between

the maximum energy that can be generated and the unavailability of energy, as noted below) over the maximum energy that can be generated in the month.

- **Scheduled unavailability (%)** - This index refers to the period in which a plant or section thereof was unavailable due to scheduled events (maintenance, etc.). It is the ratio of the energy unavailable during the scheduled over

the maximum amount of energy that can be generated in the month.

- **Unscheduled unavailability (%)** - This index refers to the period in which a plant or section thereof was unavailable due to fault. It is calculated as the ratio of the energy unavailable during the fault events over the maximum amount of energy that can be generated in the month.

## ENERGY DISTRIBUTION: NETWORKS AND SMART GRIDS

### DISTRIBUTION NETWORKS

Acea Distribuzione is the Group company which holds the Ministerial concession for the management of the **electricity distribution network** serving Rome and Formello, covering around **29,000 km** and capable of serving

roughly 2.7 million resident inhabitants. Acea is the third biggest operator in the Italian sector in terms of electricity distributed, at around 11,000 GWh per year. Table 75 shows the main plant figures.

TABLE 75 - OVERHEAD AND UNDERGROUND DISTRIBUTION LINES AND PLANTS (2012-2014)

TYPE	U. M.	2012	2013	2014
<b>Plants and outputs</b>				
HV/HV – HV/MV primary substations	No.	69	70	70
HV/HV and HV/MV transformers	No.	173	170	168
Power transformation	MVA	7,750	7,787	7,903
Secondary substations in operation	No.	13,030	13,078	13,113
MV/MV - MV/LV transformers	No.	12,749	12,760	12,799
Transformer capacity	MVA	5,953	6,032	6,118
<b>Overhead and underground networks</b>				
High voltage networks – overhead lines	km	372	335	323
High voltage networks – underground lines	km	241	252	238
Medium voltage networks – overhead lines	km	475	456	458
Medium voltage networks – underground lines	km	9,775	9,845	10,050
Low voltage networks – overhead lines	km	1,683	1,669	1,658
Low voltage networks – underground lines	km	17,324	17,450	17,585

The indicator of environmental protection is calculated as the percentage of the **buried high voltage (HV) network** over **the total of HV lines** (overhead + underground). In 2014, the indicator was measured at around **42%**

(compared to 39% in 2012 and 43% in 2013). In 2014, Acea Group began an important project for **modernisation of the high (150 kV) and very high voltage (220 and 380 kV) distribution and transmission networks,**

under the memorandum of understanding between Acea Distribuzione, the City of Rome and Terna SpA, signed in 2010 (see in-depth box).

#### MEMORANDUM OF UNDERSTANDING FOR MODERNISATION OF THE HIGH AND VERY-HIGH VOLTAGE NETWORKS IN THE AREA OF ROME

The Memorandum of understanding for the modernisation of the high (150 kV) and very high (220 and 380 kV) electrical distribution networks was signed in March 2010, by the City of Rome (Mayor and Director of Public Works), Acea Distribuzione and the company Terna Rete Elettrica Nazionale (operator of the national transmission networks). The Memorandum was countersigned for acceptance by the Region of Lazio (Director of Environment and Inter-Community Cooperation), the Park of Veio Regional Agency, RomaNatura Regional Agency, and City of Rome Department of Environmental Policy, as Managing Agency for the Roman Littoral Nature Reserve.

The Memorandum describes a **programme of interventions concerning numerous electrical lines and transformer and distribution stations**, and sets out important objectives towards **increasing the capacity of the electrical systems, improvement in reliability and integration of plants on the territory**. It provides for construction of around 123 km of new overhead electrical lines and the demolition of almost 300 km of existing overhead lines, constructed over many decades and passing through **11 protected natural areas**. These interventions achieve another important benefit, in energy savings deriving from reduced losses in transmission and transformation within the network, thanks to the new technical features of the plants compared to the existing ones.

In 2014, Acea Distribuzione developed the working plans for a number of project parts and **carried out works, as follows:**

1. North Rome/Bufalotta line - Completed working plans for the overhead and underground lines; construction of the overhead lines will begin in 2015;
2. North Rome/Prati Fiscali line - Completed the working plans and began construction, with completion expected in 2015.
3. Flaminia/Cassia – Completed the working plans for the overhead part.
4. Upgrading La Storta primary station – Began works, for completion in early 2015.

Other works are currently in start-up stage, or are in the process of evaluation of environmental impacts for the necessary Regional authorisations.

**Energy losses on the network**, due mainly to heating in the conductors as a result of the Joule effect, come to **around 6.2% of total energy conveyed**, which is in line with the average values for Italy. However in the management of the Rome and Formello networks, Acea is committed to **continuous improvement in performance**, including in energy efficiency.

For this, the Acea companies either have short-term plans or have already begun **numerous initiatives for reduction of losses**, ranging from the installation of low-loss transformers to upgrading of medium voltage levels from 8.4 kW to 20 kW. The Group has also continued the **Smart-Network Management System project**, aiming at **improving network**

**performance** through the evolution and integration of operations systems dedicated to network management (see in-depth box). By 2016, these interventions will achieve a reduction of 1.5% in energy losses from the Joules effect in the Rome Distribution network, equivalent to a saving of 1,200 t/yr of CO<sub>2</sub>.

#### SMART NETWORK MANAGEMENT SYSTEM (SNMS) PROJECT

Acea launched the **Smart Network Management System (SnMS)** project in June 2011, and by November 2014, the scientific work was complete<sup>93</sup>. The project is coordinated by Acea Distribuzione, and focuses on the following themes:

1. **Management of electro-magnetic fields** emitted by the network secondary substations;
2. Improved diagnostic techniques for **analysis of buried medium voltage cables**;
3. Improved software for **optimisation of the low voltage network** (for this there is a subproject *Optimisation of LV Network (ORBT)*);
4. Improved **hardware and software for management of the LV network**, and for **remote reading of consumption meters**;
5. Implementation of a system for collecting data at a single control point, common to all of Acea Distribuzione, able to **acquire and manage large volumes of data** and permit development of **Key Performance Indicators** for monitoring and managing the network;
6. A system of **maintenance management for the HV and MV networks**, for provision of operators with information on the status of components, and consequent optimisation of maintenance operations;
7. Workforce Management: preliminary analysis of the needs for **optimised management of the work force**, both in operations and in procedures for “acquisition of needs” and control of the works (*Workforce Management project - WFM*);

The SnMS project has already provided hardware, software and procedural instruments. In the subsequent industrialisation stage, these will result in higher levels of quality in terms of continuity of service to customers.

#### SMART GRID

In 2014, Acea Distribuzione continued with projects begun in previous years:

a) **Smart Grid pilot project** - Launched in 2011<sup>94</sup>, this project concerns a portion of the network already in operation in the Raffinerie-Ponte Galeria area. The pilot project works ended in 2013. In 2014, the **company began and completed the monitoring stage** (see in-depth box).

b) **Smart Grid Intelligence** - Together with the responsible Holding unit, the company continued the project as planned for development of the **Smart Grid Intelligence (SGI) system**, one of the sub-projects of the overall Smart-network

Management System. The SGI will **permit monitoring of the electrical network through intelligent use of the data present in the company management systems, and recorded from the field**.

The current stage of the project is devoted to completing analytical algorithms for the identification of weak points and prevention of breakdowns in the system, thus improving service continuity.

c) **Optimisation of the Low Voltage Network** - Work continued in 2014 on developing the project for **Optimisation of the Low-Voltage Network (ORBT)**, which is a further sub-project of the Smart-Network Management System. In this case, the objective is **detect critical operational conditions within individual parts of the**

**network**, and to **identify the application of assets that will optimise the function**, balancing the loads.

Over the course of 2014, the company began and completed experiments in the functionality of the application, including **integration with the Acea master IT systems** that provide for automatic monthly updating of data.

In addition, Acea Distribuzione developed the further sub-project, called **ORBT-Continuità**, for the prompt identification of clients affected by every interruption event, as required under Resolution ARG/elt 198/11.

At the close of 2014, the company began further modifications of the data management methods, designed to obtain greater information from the “field” for improved management of the consumer basin.

93 The Project was accepted for financing by the Minister for Economic Development, under Decree No. 2481 of 24/07/14, for a total of around 11.00 million euros.

94 The Acea Distribuzione Smart pilot project was presented to the Electrical Energy and Gas Authority in November 2010 and selected for inclusion in aided projects (see Resolution ARG/elt 12/11).



## THE ACEA DISTRIBUZIONE SMART PILOT PROJECT: STATUS AT 2014

### 1. Advanced automation in the MV network:

The company completed the monitoring stage for the four zones already in service in the medium voltage (MV) network (including Malagrotta). The Rome network, like that of other metropolitan areas, is complex and non-homogenous: the results of the year's monitoring permitted redefinition of the automation objectives towards greater flexibility and replicability, in response to these characteristics.

### 2. Monitoring the MV/LV networks:

In 2014, Acea Distribuzione completed the monitoring and works for distance control of the low voltage network. The results permitted engineering of new solutions that have now been developed as prototypes.

### 3. New management criteria for the MV network:

In 2014, four test sessions (July, August, November, December) were conducted for testing of the correct function of the algorithm within the central distance control system. The system operates to minimize losses through the acquisition of measurements from different nodes throughout the MV network, meeting predefined obligatory parameters.

### 4. E-car and storage:

The company completed the monitoring stage for the integrated system of a **photovoltaic plant, an energy storage system, and four recharging stations** for electric vehicles. The monitoring was carried out via a central system capable of carrying out diagnostic functions, recognising clients, and supervising and controlling recharge procedures. By means of a dedicated station for monitoring variation in the state of battery charge, the system also monitors the power inserted by the photovoltaic plant and power requested from the network.

## ENERGY SAVINGS

### ENERGY EFFICIENCY CERTIFICATES AND CO-GENERATION

In 2014, given the legislative framework governing energy efficiency (Italian Ministerial Decree 20/07/2004), the company ARSE (Acea Reti and Servizi Energetici) decided to redefine the overall strategy and positioning in the energy services sector. Following this, the focus is now exclusively on **the energy efficiency initiatives carried out by the Group companies**, with accounting and reporting of the results to the Energy Services Authority (GSE), to **obtain the issue of Energy Efficiency Certificates (TEEs)**.

To reach the energy savings objectives for which Acea Distribuzione is responsible, actions have

been concentrated on purchasing TEEs on the market, managed by the Electricity Market Authority (GME)<sup>95</sup>. The obligations for which Acea Distribuzione is responsible **for 2013** (fulfilled in May 2014) and **for 2014** (within May 2015) are respectively **140,938 TEEs** and **174,316 TEEs**. In reality, the system provides that if the companies do not fulfil the totality of TEE obligations assigned to them within the year foreseen then they can complete this within the subsequent two years, provided they achieve at least 50% of the obligations within the original year. For this reason, for 2013 the company decided to fulfil only 92,698 of Acea Distribuzione's TEE obligations out of the foreseen 140,938, even though company's TEE portfolio would have permitted the fulfilment of the entirety.

The activities assigned to ARSE, and particularly its subsidiary **Ecogena**, include the planning and implementation of **tri-generation plants**<sup>96</sup> for the combined production of electrical, thermal energy and cold. **In 2014** the company **operated cogeneration plants for a total of 5.1 MW of electrical power**, in conjunction with district heating networks. A 1.6 MW plant built at Cinecittà (Rome) was placed in service, and construction of another 0.4 MW plant continued at Europarco (Rome EUR), with commencement of operations scheduled for the first quarter of 2015.<sup>97</sup>

## LEGISLATIVE DECREE NO. 102/2014 ON ENERGY EFFICIENCY

**Italian Legislative Decree No. 102/2014**, for Activation of Directive 2012/27/UE on energy efficiency, modifying Directives 2009/125/CE and 2000/30/UE abrogating Directives 2004/8/CE and 2006/32/CE, **came into effect on 19/07/2014**.

The decree provides for a series of measures to **increase energy efficiency** in all areas consumption for civil and industrial purposes, setting an objective for national savings in final uses equal to **15.5 Mtoe/yr** (million tonnes oil equivalent per year) to be reached by 2020, in keeping with the provisions of the National Energy Strategy.

Given the dimensions of the objective, the legislators imposed a range of measures, including several that are particularly interesting and innovative.

Article 5 provides for "**Improvement in energy performance of Public Administration buildings**", including obligations to re-engineer at least 3% of air-conditioned building areas per year, beginning in 2014.

Article 8 introduces the obligation that large enterprises shall conduct "**Energy diagnoses and energy-management systems diagnoses**".

Article 9 provides for progressive introduction of smart measurement systems by the distributing companies, in keeping with their responsibility for metering, with the ultimate objective of more effective **measurement and billing of energy consumption** (electricity, gas, district heating, district cooling, hot water for domestic use).

Also significant are Articles 12 and 13, on matters of **qualification, accreditation, certification, information and training**, and Article 15, which implements a "**National fund for energy efficiency**". The purpose of the fund is to support financing for energy efficiency interventions executed by ESCOs (Energy Service Companies), and by project or objective-oriented companies formed for the specific purpose, including through resort to public-private partnership.

A final notable point concerns the provisions for the so-called **white certificates** (Energy Efficiency Certificates, TEEs) foreseen under Article 7 of Directive 2012/27/UE of the European Parliament and Council: the new legislation in fact maintains unaltered **their fundamental role in Italy**, held since 2004, to promote energy efficiency in the final uses of electrical energy and gas. The expectation is that by 31/12/2020 the white certificates certification mechanism will have resulted in annual energy savings of not less than 5 Mtoe/yr, out of an expected total of around 15 Mtoe/yr.

<sup>95</sup> This choice was also reinforced by the entry into effect of AEEGSI Resolution 13/2014/R/eel, on the new method of defining tariff-based contributions to those distribution companies with obligation of annual fulfilment of the TEEs, which in practice links the contributions to the market price of the TEEs themselves, thus resulting in a ceiling on financial risks.

<sup>96</sup> Co-generation, meaning combined electrical and thermal energy production, permits elevated yields of 80% to 90%. Tri-generation is a further application where part of the thermal energy is recovered for use in refrigerating water, which is then applied to air conditioning or industrial processes.

<sup>97</sup> Delays in the broader building project, not under Acea control, slowed the construction of the Europarco plant.

**ENERGY EFFICIENCY IN ACEA GROUP**

Actions for energy savings are exemplary of the principles of sustainable development: in fact they simultaneously permit the achievement of advantages in economic (lower cost) and socio-economic (reduced consumption, less waste) terms, while also increasing the competitiveness of the companies who engage in such actions. Acea sets the objective of containing energy consumption, and in consequence acts to improve the **energy efficiency of its processes**. In recent years, the Group has thus achieved relevant interventions in all business areas: Water, Networks and Environment. In keeping with the model developed at the overall Group level, the companies in the water area

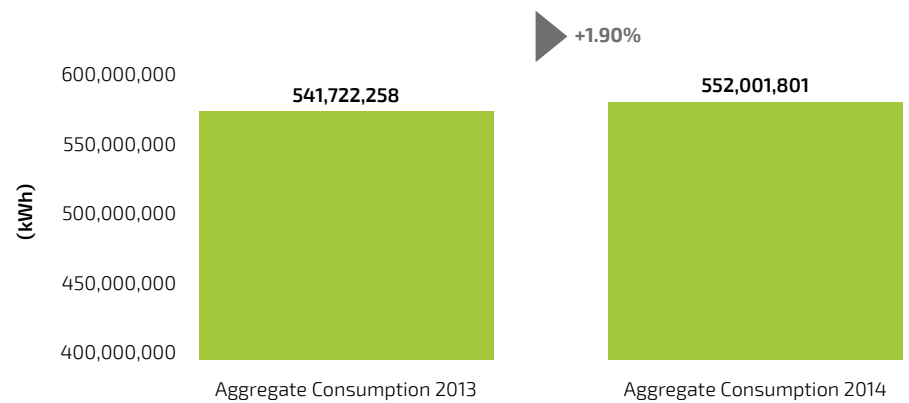
have reached or maintained the **certification of energy management systems**, which provide for continuous improvement in the energy efficiency of the processes under management (see *Corporate Identity* under *Management Systems*).

However, in spite of undertakings and the numerous measures for containment of consumption, in 2014 the **water area registered a slight increase in consumption (+1.9%) over the previous year** (see Chart 36). The reason for this growth is primarily in the **reactivation of units that were under maintenance in 2013** (+10 GWh) in the main water treatment plants of Acea Ato 2. Another contribution to

increased consumption came from **greater use of pumping from deep aquifers**, necessary to address shortages in other water resources. Another significant effect arises from the constant growth in the level of services demanded under evolving legislative requirements for the water sector, which have implications for increased energy consumption. In fact, were it not for the Group's **many actions for increased efficiency** initiated over recent years, **which have provided important compensation for the growth dynamics described**, the increased energy consumption registered for the water area would have been remarkably greater.

**CHART 36 – WATER COMPANIES: COMPARISON OF CONSOLIDATED ENERGY CONSUMPTION (2013-2014)**

**Note:** The data for energy consumption by the main water companies (Acea Ato 2, Acea Ato 5, Publiacqua, Acque, Acquedotto del Fiora, Umbra Acque, Gori, Gesesa), as depicted in the graph, are summed by share of Acea ownership. The final reporting of these values may be affected by equalization, as provided by the Authority, however it is estimated that the effects of such equalisation would not exceed 1%.



In the Network area, the companies carry out **energy audits** and technical-economic analyses of the plants, as the first step towards increased efficiency. In 2014, as a result of these studies, **the process of optimisation in configuring the Medium Voltage network began**, resulting in a **reduction of around 700 MWh/year in consumption from the Joule effect**.

Numerous other initiatives are also under way, which a first energy and techno-economic analysis has revealed as particularly effective. Over the next several years, these initiatives will bring changes to primary substations and a major operating centre, and the rationalisation of the transformer inventory with gradual elimination of 150/60kV equipment.

Measures for energy efficiency also concern the **public lighting** service for artistic-historic monuments in Rome, carried out by the subsidiary, Acea Illuminazione Pubblica. One of the steps of great importance is the **conversion of the entire Roma Capitale lighting inventory** (roughly 189,000 units) to **LED technology**, resulting in substantial reductions in energy consumption and CO<sub>2</sub> emissions (see detailed box *Customers and Community*, under *Quality in the lighting area*).

In the Environment area, in 2014 the company **A.R.I.A.** acted on the energy audit completed for the **San Vittore del Lazio plant** in preceding years. From this, the company has implemented **actions for efficiency**, and now **plans further**

**interventions** such as renovating the lighting plant using LED technologies (to begin in 2015), and in systems for activating and controlling the air compressors. At present, the waste-to-energy plant uses methane in the necessary processes for reduction of nitrous oxide (NO<sub>x</sub>) emissions in the exhaust gases: here, planning is currently under way for a new de-NO<sub>x</sub> system that will achieve energy savings of up to 70%. Finally, important works have also been undertaken at the Orvieto waste-treatment plant managed by the subsidiary **SAO**. Here, revamping is under way for development of an anaerobic digestion section for the organic fraction, for electricity generation from biogas.

# ENVIRONMENT AREA – WASTE MANAGEMENT

## REPORT BOUNDARY

This section includes the activities of the company SAO, with activities in waste collection, recycling, treatment and disposal, as well as the A.R.I.A. waste-to-energy plants and the Aquaser compost-production plants.

In recent years, Acea has determined to apply its experience and entrepreneurial capacities in the area of managing the waste cycle. This is known as a field of activities with very high socio-environmental impacts and equally important implications from an economic point of view.

Group companies are involved in implementing most of the stages composing the waste cycle, including:

- **Treatment of municipal solid waste (MSW)** and other waste types (green waste

from segregated collection, industrial wastes, etc.), **including materials recovery** (glass, plastic, steel, other metals, paper and cardboard) and buried disposal of the residues;

- **Incineration with energy recovery;**
- **Production of high-quality compost** for agricultural purposes.

The Group is not generally involved in the first link in the value chain, consisting of the collection and transport of waste to production and treatment centres, with the exception of

**sewage-treatment sludges:** wastes produced in treatment plants for civil waste water. The waste sludges are collected and transported by the Aquaser company, controlled by Acea, acting primarily in service to the Group's own water companies.

The subsequent sections provide further information on the operational aspects of the listed activities, stressing the **advanced competencies and technologies required for modern and efficient waste management.**

## SUSTAINABLE APPROACH TO INTEGRATED WASTE TREATMENT

The Acea Group, through the company SAO (Servizi Ambientali Orvieto), manages an important centre for treatment of urban wastes, situated in the municipality of Orvieto. The plant carries out activities of sorting, composting and preparation for disposal, achieving certification under environmental-management systems standards **UNI EN ISO 14001:2004** and **EMAS III/2009**, as well as safety system standard **OHSAS 18001:2007**.

In keeping with the principles of environmental protection and sustainable development of the entire Group, SAO manages its activities for **maximum recovery of materials**, while also favouring **energy production from renewable**

**resources** and **reduction of refuse directed to burial.**

The company is preparing the activation of a **new line for anaerobic treatment** of organic waste material, in 2015. This will include production of electricity from combustion of biogas produced in the digester.

The SAO plant is equipped with a **photovoltaic plant**, owned by Acea Reti e Servizi Energetici, covering the entire roof of the building for waste sorting, treatment and composting. In 2014, the photovoltaic plant produced 476,773 kWh (the previous year roughly 550,000 kWh) of which 199,752 kWh was **used in self-consumption** for plant operations.

## WASTE INCINERATION AND ENERGY RECOVERY

The European Union has adopted an ambitious legislative framework aimed at **separating the dynamic of growth** from that of **waste production**. The objective is to reduce the quantities of waste beginning from the stage of product design. Specific areas of action would be in eco-design for mass-consumption goods and in packaging. Below this in preference is energy recovery, while disposal in landfill is considered the last option, to adopt only when it is impossible

or uneconomic to find other solutions. Directive 2008/98/CE (of 19/11/2008) of the European Parliament and Council is the guiding provision for the sector. The **recovery** operations foreseen under the directive include processes of incineration for production of electrical energy, or **"waste-to-energy"**.<sup>98</sup> These processes offer energy-economic advantages (energy recovery) and gain notable reduction in waste volumes, as well as biological stabilisation of organic waste.

## COMMENT FROM THE ISPRA 209/2014 REPORT ON ENERGY RECOVERY FROM URBAN WASTE

*"A careful analysis of the most recent EUROSTAT data on the methods of waste disposal adopted in Europe leads to the conclusion that, in a situation of a balanced mix of forms of treatment, incineration of wastes with energy recovery is not at all in conflict with recycling. This is demonstrated by the high percentages of recycling registered in the countries that are also the greatest users of incineration. Germany is a case in point, where in the presence of a 35% share of wastes incinerated, the wastes directed to recycling record a 65% share; or in the Netherlands, where a 49% percentage for incineration is accompanied by a recycling percentage of 50%. In Italy, the wastes directed to incineration represent just over 15%, in the presence of 45% directed to landfill, 25% recycled, and 15% composted."*

98 Title IV, Italian Legislative Decree No. 152/2006: "R1" recovery operations.

Within Acea Group, the company **A.R.I.A** manages the waste-to-energy process by means of **two plants**, at San Vittore del Lazio and Terni. Both of these apply environmental management systems in keeping with the **UNI EN ISO 14001:2004** standard, and are **EMAS** registered. Health and safety matters are managed according to the **OHSAS 18001:2007** standard.

The **San Vittore del Lazio** (Frosinone) plant consists of **three independent waste-to-energy lines** designed for the same type of fuel source: refuse-derived fuels (RDF), now also known as Secondary Solid Fuels (SSF). Each line has an **electrical generation power of 12 MW<sub>e</sub>, for a plant total of 36 MW<sub>e</sub> at full operation**. However, line 1 is in a process of revamping, which will be completed within 2016,

thus the current effect available power is around 24 MW, which in 2014 produced **205 GWh** of electricity. The capacity for waste treatment by incineration at the plant **was 224,336 tonnes** in 2014, and at full operation will be 320,000 t/yr. The San Vittore plant plays an important role in management of urban waste for the region of Lazio, given the particularly advanced technologies applied in the original construction.

**TABLE 76– SAN VITTORE DEL LAZIO WASTE-TO-ENERGY PLANT: OPERATION FIGURES (2012-2014)**

	UNIT MEASURE	2012	2013	2014
Solid fuel incinerated	t	218,256	224,220	224,336
Gross electricity produced	GWh	218.24	202.23	205.09
Conversion efficiency (*)	kWh/kg SSF	1.00	0.90	0.91

(\*) Ratio of gross electricity produced over quantity of SSF treated.

The **Terni plant**, which recently underwent a major revamping, consists of a **single waste-to-energy line** with power of about **12 MW<sub>e</sub>**, using **paper pulp** as fuel, specifically waste deriving from cellulose for paper production.

**TABLE 77 –TERNI WASTE-TO-ENERGY PLANT: OPERATIONS FIGURES (2013-2014)**

	UNIT MEASURE	2013	2014
Pulp incinerated	t	69,417	99,397
Gross electricity produced	GWh	57.856	81.950
Electrical efficiency (*)	kWh/kg	0.83	0.82

(\*) Ratio of gross electricity produced (GWh) over quantity of pulp treated (t).

## COMPOST PRODUCTION: THE FIRST LINK TO SUSTAINABLE FARMING

The waste treatment operations managed by the Group include composting of **organic waste**, composed of tree-pruning waste, the organic fraction of municipal solid waste (MSW), and **sewage-treatment sludge**, originating from the integrated water-management cycle. These primary waste materials are selected in doses and managed in interaction within technologically advanced plants, for production of **high-quality compost**. The compost is in strong demand from the agricultural sector, for use in treatment

of soils impoverished by long use of chemical fertilisers.

The **Aquaser** company, directly and through the connected companies of Kyklos, Solemme e S.A.MA.CE,<sup>99</sup> manages three composting plants, at Aprilia (Province of Latina), Sabaudia (Latina) and Monterotondo Marittimo (Grosseto).

In 2014 Aquaser managed a grand total of over **380,000 tonnes of waste**, of which around 188,000 tonnes of shovelable water-treatment sludge, originating primarily from the Acea Group water companies, which were directed as follows:

- 6% to direct application on agricultural lands;
- 77% to composting.

The remaining 17% of material was not recoverable and was directed to disposal.

In July 2014, the Kyklos plant was the site of a very serious industrial accident, causing the death of two workers from an external company, engaged in routine activities for unloading waste liquids from a tanker truck. Acea staff are cooperating fully with the law-enforcement forces and investigating magistrates to arrive at full understanding of the dynamics of the accident (also see box in *Suppliers*).

For precise data on compost production see *Environmental Accounts*.

99 The S.A.MA.CE plant was purchased at the close of 2013.

# WATER AREA

## REPORT BOUNDARY

The scope of reporting includes Acea Ato 2, and Acea Ato 5.

Acque, Gori, Acquedotto del Fiora, Publiacqua and Umbra Acque are included in the reporting only as concerns water supplied to customers. Precise data on these companies are included in the section *Water companies' data sheets*.

The environmental data on the water companies are 100% attributable to Acea, irrespective of the shareholding of the holding company in the share capital, due to the role in the business management of the activities.

Acea is the long-standing manager for integrated water services (SII) within the territory of the City of Rome, as well as now providing the same service for Optimum Areas of Operation (Ato) in four Italian regions - Lazio, Campania, Umbria and Tuscany. Acea is thus the national leader in the water services sector, in terms of numbers of inhabitants served. It is also active abroad<sup>100</sup> with purpose-formed companies

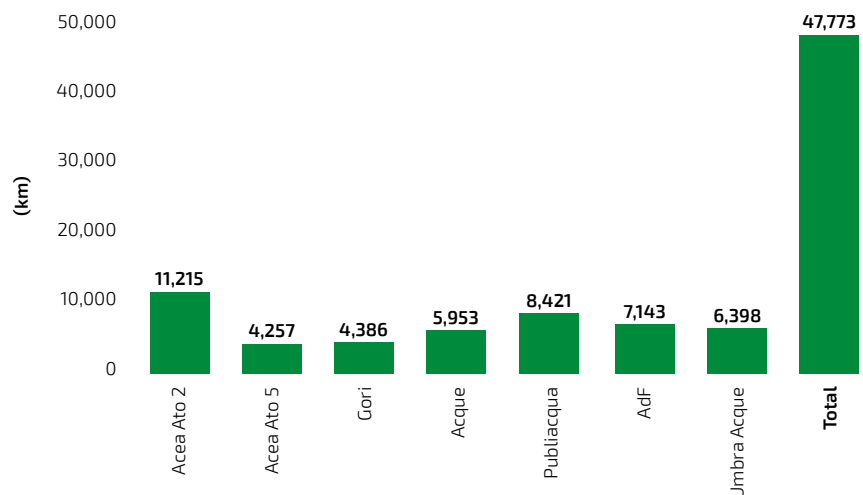
created in partnership with local and international operators, for activities with objectives of improvement in water services.

Overall in Italy, Acea companies serve a consumer basin of around **8.5 million inhabitants**, with **volumes of drinking water** introduced onto the network of around **1,308 million cubic metres** in 2014.

The ATO 2- Central Lazio territory includes the

city of Rome and another 111 municipalities, of which 75<sup>101</sup> were under full management at the close of 2014, and a basin of roughly 3.7 million inhabitants, between resident and floating population. In this service alone, the **volume of water introduced to the network** came to around **651<sup>102</sup> million cubic metres** (of which 483 million cubic metres to the “historic network” of Rome and Fiumicino).

**CHART 37 – THE GROUP'S WATER DISTRIBUTION NETWORK IN ITALY (2014)**



## ACTIVITIES IN CENTRAL LAZIO: SPRINGS AND PROTECTED AREAS

In ancient Rome, water provision was ensured by the construction of massive aqueducts, fed by uncontaminated springs, often at great distance from the city. This solution avoided problems of pollution typical of adjacent sources, and the fear of related epidemics.

The Group, through the company **Acea Ato 2**, still adopts a similar approach, with the result that Rome is one of the few great metropolises

of the world that boasts **abundant supplies of water resources**, which **do not require any preliminary treatment of drinking water**, since the waters are of **excellent quality** at source.

The **water-supply system** that furnishes this important service to the entire Province of Rome is based on **eight major aqueducts**, composing an overall network of over 200 km (plus an added 1,362 km of feeder network and 9,644 km of distribution network for drinking water), and a flow that reaches 20,000 litres/second.

Aware of the fragility of the ecosystems responsible for the continuous renewal of water resource, Acea places great emphasis on its **protection** and **safeguard**, with scrupulous attention to the provisions of Italian Decree Law No. 152/2006, of which Article 94 governs the means of **protection of areas with surface and ground waters used for human consumption**.

Table 78 reports the locations and surfaces of the areas under protection, in square metres.

<sup>100</sup> In Peru, Honduras and the Dominican Republic; countries where, between the integrated water services and commercial aspects of the service a total of 5.3 million inhabitants are served. The percentage of foreign business with regard to total revenues from the water sector amounts to only 1.3%. In keeping with the GRI recommendations, the current report therefore provides only summary description, in the section *Activities abroad*.

<sup>101</sup> In another 19 municipalities, Acea is only partial manager of SII.

<sup>102</sup> Entries in the 2014 water balance are calculated on the basis of criteria identified by AEEGSI (Annex 2, Resolution No. 5/2014).

**TABLE 78 – MAIN WATER SOURCES UNDER PROTECTION IN ATO 2 – CENTRAL LAZIO**

SENSITIVE AREA	LOCATION	SURFACE AREAS (M <sup>2</sup> )
Peschiera springs	Municipality of Cittaducale (Rieti, Lazio)	598,530
Le Capore springs	Municipality of Frasso and Casaprota (Rieti, Lazio)	586,600
Acqua Marcia springs	Municipalities of Agosta-Arsoli-Marano Equo (Rome)	3,519,600
Acquoria springs	Municipality of Tivoli (Rome)	10,050
Acqua Felice - Pantano springs	Municipality of Zagarolo (Rome)	441,280
Pertuso springs	Municipality of Trevi - Filettino (Lazio)	77,740
Doganella springs	Municipality of Rocca Priora (Rome)	350,000
Acqua Vergine springs	Municipality of Rome	500,000
Torre Angela wells	Municipality of Rome	50,300
Finocchio wells	Municipality of Rome	31,153

Non-drinking water resources are provided by other sources of lesser quality, and distributed by a **specific Rome network** dedicated to watering of parks and gardens.

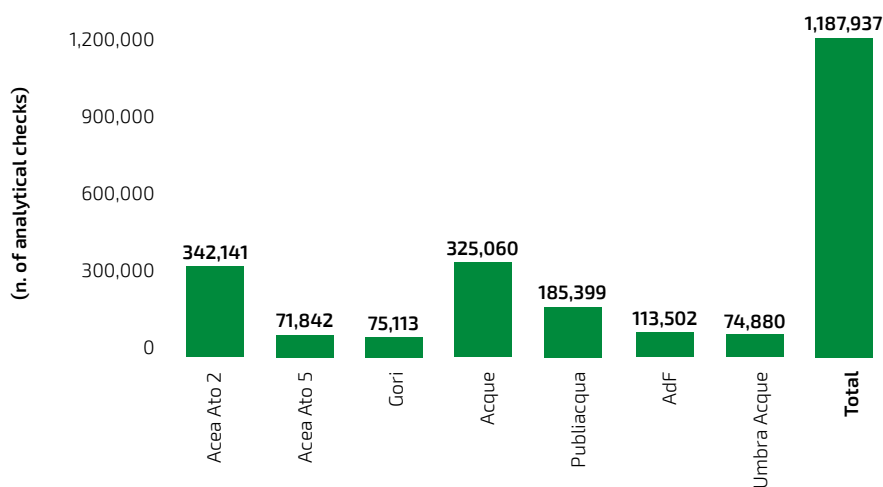
### WATER QUALITY

Each Group company conducts regular planned monitoring of the quality of the drinking water provided and the wastewater returned to the

environment after treatment. The analytical checks on water distributed to customers are of fundamental importance due to the information they provide on health concerns. Chart 38

presents a summary of all the activities in this regard, for all the water companies.

**CHART 38 – ANALYTICAL TESTS OF DRINKING WATER: TOTALS AND BY COMPANY (2014)**



As described above, the quality of the water distributed in Rome is very high, thanks to its purity and excellent mineral levels. The larger area of Lazio includes territories of volcanic origin, where the water has presented problems of potability, due to the inherent presence of greater concentrations of substances than are permitted under the relevant legislation. For

this, Acea Ato 2 has over the years carried out numerous interventions for the resolution of the problems (see *Quality in the Water Area under Customers and Community*). Given the scope of measurement and analytical monitoring activities concerning water, the Group companies have chosen to carry out this work both independently (with support from carefully

selected technical companies) and **through the controlled company Laboratori, accredited under standard ISO/IEC 17025** for execution and certification of chemical-physical and bacteriological analyses in different materials, including water (see Tables 79-81).

**TABLE 79 – ANALYTICAL TESTS CARRIED OUT BY LABORATORI: ATO 2/CENTRAL LAZIO (2012-2014)**

TYPE OF WATER ANALYSED	NO. OF ANALYTICAL TESTS		
	2012	2013	2014
Drinking water	309,751	307,391	310,507
Waste water	117,440	164,130	161,466
Surface water	36,828	34,861	31,437
<b>Total</b>	<b>464,019</b>	<b>506,382</b>	<b>503,410</b>

**TABLE 80 - ANALYTICAL TESTS CARRIED OUT BY LABORATORI: DRINKING WATER FOR THE ROME 'HISTORIC' NETWORK (2012-2014)**

AREA OF WITHDRAWAL	NO. OF WITHDRAWAL POINTS	NO. OF SAMPLES			NO. OF ANALYTICAL TESTS		
		2012	3012	2014	2012	2013	2014
Collection	45	510	542	544	22,364	21,788	21,996
Aqueducts and feeder lines	26	338	358	343	9,502	10,952	10,451
Reservoirs/water centres	21	217	246	283	7,483	8,426	11,285
Distribution networks	320	3,970	3,783	4,095	123,748	124,802	138,927
<b>Total</b>	<b>412</b>	<b>5,035</b>	<b>4,929</b>	<b>5,265</b>	<b>163,097</b>	<b>165,968</b>	<b>182,659</b>

**TABLE 81 - AVERAGE CHEMICAL AND MICROBIOLOGICAL FEATURES OF THE WATER DISTRIBUTED IN ROME AND STANDARDS UNDER LEGISLATIVE DECREE NO. 31/01 (2014)**

PARAMETERS	UNIT OF MEASUREMENT	2014 AVERAGE VALUE	LEGAL PARAMETER (ITALIAN LEGISLATIVE DECREE NO. 31/01)
Turbidity	NTU	<b>&lt;0.5</b>	with no unusual changes
Temperature	°C	<b>13.0</b>	n/a
Concentration of hydrogen ions	Degrees of pH	<b>7.43</b>	>6.5 and < 9.5
Electrical conductivity	µS/cm a 20 °C	<b>537</b>	<2500
Chlorides	mg/l Cl	<b>7.71</b>	<250
Sulphates	mg/l SO <sub>4</sub>	<b>13.9</b>	<250
Calcium	mg/l Ca	<b>93.7</b>	n/a
Magnesium	mg/l Mg	<b>18.3</b>	n/a
Sodium	mg/l Na	<b>5.86</b>	<200
Potassium	mg/l K	<b>3.42</b>	n/a
Water hardness	°F	<b>30.9</b>	(*)
Free residual chlorine	mg/l Cl <sub>2</sub>	<b>0.16</b>	(**)
Alkalinity	mg/l CaCO <sub>3</sub>	<b>309</b>	n/a
Fixed residual calculated	mg/l	<b>384</b>	(***)
Nitrates	mg/l NO <sub>3</sub>	<b>3.57</b>	<50
Nitrites	mg/l NO <sub>2</sub>	<b>&lt;0.05</b>	<0.50
Ammonia	mg/l NH <sub>4</sub>	<b>&lt;0.10</b>	<0.50
Fluorides	mg/l F	<b>0.16</b>	<1.50
Bicarbonates	mg/l HCO <sub>3</sub>	<b>377</b>	n/a
Total organic carbon	mg/l C	<b>0.56</b>	with no unusual changes
Iron	µg/l Fe	<b>8.54</b>	<200
Copper	mg/l Cu	<b>0.002</b>	<1.0
Lead	µg/l Pb	<b>0.30</b>	<10
Cadmium	µg/l Cd	<b>&lt;0.2</b>	<5.0
Chromium	µg/l Cr	<b>&lt;5.0</b>	<50
Nickel	µg/l Ni	<b>&lt;2.0</b>	<20
Manganese	µg/l Mn	<b>0.38</b>	<50
Arsenic	µg/l As	<b>&lt;1.0</b>	<10
Vanadium	µg/l V	<b>2.8</b>	<140
Total trihalomethanes	µg/l	<b>1.43</b>	<30
Trichlorethylene	µg/l	<b>&lt;0.10</b>	<10
Tetrachloroethylene	µg/l	<b>&lt;0.10</b>	<10
1,2 - Dichloroethane	µg/l	<b>&lt;0.30</b>	<3.0
Benzene	µg/l	<b>&lt;0.10</b>	<1.0
Benzopyrene	µg/l	<b>&lt;0.003</b>	<0.010
Coliform bacteria at 37° C	MPN/100 ml	<b>0</b>	0
Escherichia coli	MPN/100 ml	<b>0</b>	0
Enterococcus	UFC/100 ml	<b>0</b>	0

(\*) recommended values: 15-50 °F - the lower limit is valid for water subject to softening or desalination treatment

(\*\*) recommended value 0.2 mg/L

(\*\*\*) maximum value recommended: 1,500 mg/L

## SEWERAGE SERVICE AND TREATMENT SYSTEM

After the stages of water capture and distribution of drinking water, the completion of integrated water services requires management of the **wastewater-treatment system**, as the last stage of the industrial cycle **prior to returning the resource to the environment**. The water supplied is used for the different civil purposes and is then collected by sewerage: a complex

system of pipes and mains that avoid dangerous losses, and directs the waters to treatment plants for the removal of pollutants by physical processes (filtration, sedimentation, flotation) and biological processes (aerobic decomposition of organic substances by bacteria). After the necessary treatments, the water existing the plants shows chemical and biological characteristics that are compatible with the designated receptor body of water. In this regard, Italian Legislative Decree

No. 152/2006 (Part 3) sets the ceiling values for parameters in order to ensure full compatibility with the receptor bodies of water.

In 2014, the **total volume of water treated** by the group amounted to **940.7 Mm<sup>3</sup>**, managed by **over 830 treatment plants**, while the sewer networks managed amount to **24,440 km**.

CHART 39 – GROUP SEWER NETWORKS IN ITALY (2014)

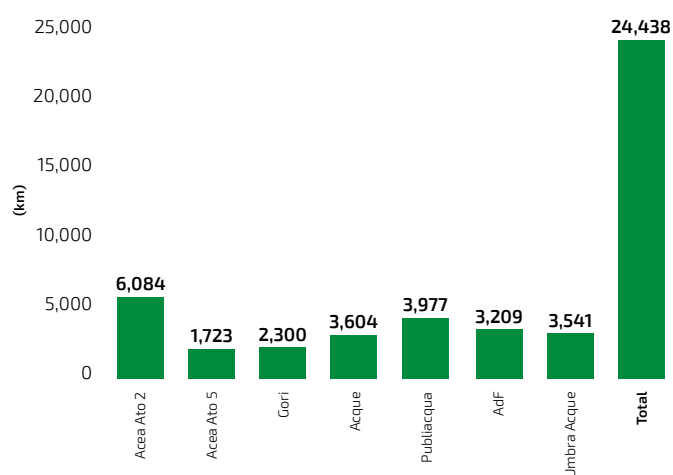
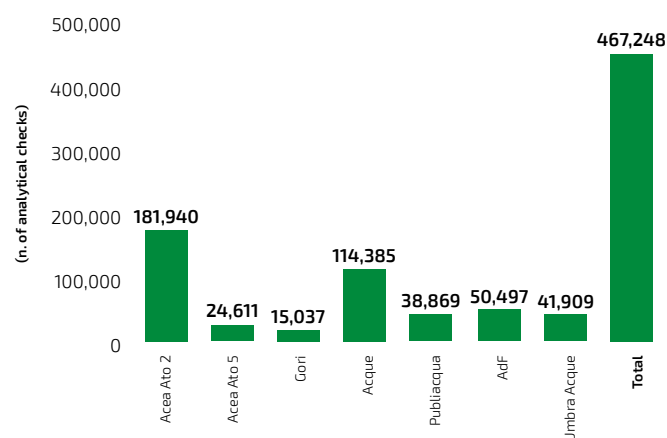


CHART 40 - ANALYTICAL TESTS OF WASTE WATER: TOTALS AND BY COMPANY (2014)



Tables 82 and 83 report the volumes of waste water treated and the percentage coverages of sewerage and treatment services relative to the total consumer basin served by aqueducts, for companies operating in the territory of Lazio.

TABLE 82 – PERCENTAGE COVERAGE OF SEWERAGE AND TREATMENT SERVICES FOR THE TOTAL CONSUMER BASIN OF WATER COMPANIES OPERATING IN LAZIO (2012-2014)

COMPANY	2012		2013		2014	
	Sewerage	Waste water treatment	Sewerage	Waste water treatment	Sewerage	Waste water treatment
Acea Ato 2	91.5%	87.5%	91.5%	87.5%	91.7%	87.8%
Acea Ato 5	67.0%	55.2%	67.3%	55.5%	67.1%	55.4%

TABLE 83 – VOLUMES OF WASTE WATER TREATED BY WATER COMPANIES OPERATING IN LAZIO (2012-2014) (Mm<sup>3</sup>)

COMPANY	2012	2013	2014
Acea Ato 2	599.6	639.6	651.6
Acea Ato 5	26.7	26.5	26.6



In 2014, in the “historic” area of Rome and Fiumicino, under the responsibility for Acea Ato 2, the **main treatment plants processed 564 million cubic metres of waste water**, in line with the preceding year (around 560 million cubic metres of waste water treated).  
With the addition of the minor treatment plants

and those belonging to the municipalities acquired in ATO 2, totalling 174, the **total volume of waters treated was 652 million cubic metres**, an increase of 7% over 2013, in line with the continual acquisition and management of wastewater treatment plants within ATO 2. The “**treatment efficiency**” achieved in the

plants has made it possible to maintain the values of the pollutant parameters in the outgoing treated water **within the limits envisaged by law**. Table 84 shows the results for the main parameters for water on exit, in the different Ato 2 treatment plants.

**TABLE 84 - PARAMETERS ON EXIT FROM THE MAIN TREATMENT PLANTS MANAGED BY ACEA ATO 2 – MUNICIPALITY OF ROME (2014)**

Parameter	ROME SOUTH TREATMENT PLANT	ROME NORTH TREATMENT PLANT	ROME EAST TREATMENT PLANT	OSTIA TREATMENT PLANT	LIMITS OF CONCENTRATION IN SURFACE WATER (ITALIAN LEGISLATIVE DECREE NO. 152/06)
	Average values (mg/l)				
BOD <sub>5</sub>	18	10	6	3	≤ 25
COD	57	30	45	24	≤ 125
SST	28	29	22	14	≤ 35
Nitrogen (ammonia, nitric and nitrous)	10	14	9	9	-
Phosphorous	1	2	2	2	-
Absolute values (t)					
COD	18,880	2,835	4,474	648	-
SST	9,122	2,669	2,135	382	-

The sludges produced in the treatment process are used in the agricultural sector, either spread directly on the ground or following composting. For the report on this activity, see *Compost production: the first link to sustainable farming*, in the section *Environment area – waste management*.

# USE OF ENERGY AND WATER

## USE OF ENERGY AND WATER

The boundaries of this section include Acea SpA, Acea Reti e Servizi Energetici, Acea Distribuzione, LaboratoRI, Acea Produzione, as well as A.R.I.A., with two waste-to-energy plants, and Aquaser with two composting plants. Concerning the water area, reporting includes Acea Ato 2 and Acea Ato 5.

## ENERGY CONSUMPTION

The following tables illustrate **direct energy consumption** of the Group, meaning those that involve the use of primary sources **for the functioning of the production system,**

**including the consumption for generation** of electricity and heat (Table 85) and **the fuels used for the vehicle fleet** (Table 86).

**TABLE 85 – ACEA GROUP DIRECT ENERGY CONSUMPTION (2012-2014)**

ENERGY BY SOURCE	2012	2013	2014
	TJ (GWh)		
Methane (for electrical generation, district heating, office heating)	552.7 (153.5)	725.5 (201.5)	579.2 (160.9)
Gas oil (for electrical generation, office heating)	46.4 (12.9)	35.2 (9.8)	17.1 (4.8)
RDF/SSF and paper pulp (waste-to-energy)	3,273.8 (909.4)	4,446.5 (1,235.1)	5,150.4 (1,430.7)
Petrol (vehicle transport)	26.9 (7.5)	20.8 (5.8)	13.4 (3.7)
Diesel (vehicle transport)	29.7 (8.3)	24.4 (6.8)	35.0 (9.7)
LPG (heating)	0.6 (0.2)	0.6 (0.2)	0.6 (0.2)
<b>Total EN3</b>	<b>3,930.1 (1,091.7)</b>	<b>5,253.0 (1,459.2)</b>	<b>5,795.7 (1,609.9)</b>

**Note:** The data include A.R.I.A., Aquaser, Acea Produzione, Acea SpA, Acea Ato 2, Acea Distribuzione and Acea Produzione.

Considering 1 TJ → around 23.9 toe (tonne oil equivalent) the **indicator GRI-G3.1 EN3 = (5,737.8 x 23.9) = 137,133.4 toe.**

**TABLE 86 – ACEA VEHICLE FLEET CONSUMPTION (2012- 2014)**

VEHICLE FLEET CONSUMPTION	2012	2013	2014
<b>Petrol</b>			
L	831,595.2	643,912.2	406,016.42
TJ	26.9	20.8	13.4
<b>Diesel</b>			
L	848,330.4	697,739.20	984,483.32
TJ	29.7	24.4	35.0

**Note:** The scope of reporting on consumption for the vehicle fleet includes the companies: Acea SpA, Acea Distribuzione, Illuminazione Pubblica, Acea Reti e Servizi Energetici, LaboratoRI, Acea Produzione, Acea Energia, Acea Ato 2 and Acea Ato 5.

The “indirect consumption of energy” by the group is reported in Table 87. This includes losses of energy from the Rome electricity distribution network, occurring during the transformation and transport stages

**TABLE 87 – ACEA GROUP INDIRECT CONSUMPTION OF ENERGY (2012-2014)**

	2012	2013	2014
	TJ (GWh)		
Electricity losses on the distribution and transportation networks	1,377.4 (382.6)	1,512.7 (420.2)	1,332.4 (370.1)
Losses and internal consumption for electricity production	169.8 (47.17)	182.6 (50.71)	186.5 (51.80)
Heat losses on the district heating network	41.8 (11.6)	82.1 (22.8)	68.0 (18.9)
Consumption for public lighting (*)	n.a.	669.2 (185.9)	669.2 (185.9)
Electricity consumption for waste treatment plants	-	18.4 (5.1)	12.6 (3.5)
Electricity consumption for drinking and non-drinking water distribution	784.2 (217.8)	711.6 (197.7)	699.5 (194.3)
Electricity consumption for waste water treatment	645.1 (179.2)	646.9 (179.7)	689.8 (191.,6)
Electricity consumption for the offices	37.4 (10.4)	41.4 (11.5)	33.12 (9.2)
<b>Total indirect energy consumption</b>	<b>3,724.9</b> <b>(1,034.7)</b>	<b>3,864.9</b> <b>(1,073.6)</b>	<b>3,691.1</b> <b>(1,025.3)</b>

**Note:** The data for the three-year period include A.R.I.A., Acea Produzione, Acea Distribuzione, Acea Reti e Servizi Energetici, Acea SpA and the water companies Acea Ato 2 and Acea Ato 5. The quantification of the electrical energy consumption by primary sources may be considered as that of the average Italian mix of energy sources (GME 2012 Annual Report): natural gas and other gas fuels, approximately 40%; petroleum products, approximately 4%; solid fuels, approximately 21%; renewables, approximately 25%; imports, approximately 10%.

(\*) The 2013 figure is recalculated; the 2012 figure is not available, however the contribution to the total indicator could be estimated as a value similar to those for 2013-2014 (185.9 GWh)

## WATER CONSUMPTION

**Group water consumption** involves both **industrial processes** and **civil uses**, as analysed in table 88. The increase in **consumption for civil uses**, from 1.4 to 1.7

Mm<sup>3</sup>, is due in part to the increase in the number of consumers included in the 2014 reporting, as a result of the updating of the computerised reporting system<sup>103</sup>.

**TABLE 88 - ACEA GROUP WATER CONSUMPTION (2012-2014)**

	2012	2013	2014
	(Mm <sup>3</sup> )		
Industrial processes: remote heating and others for thermos-electric generation (*) (source: aqueducts, wells)	0.14	0.16	0.14
Civil/sanitary use (source: aqueducts)	1.90	1.43	1.70
<b>Total water consumption</b>	<b>2.84</b>	<b>1.57</b>	<b>1.84</b>

(\*) Including the process water used at the Tor di Valle thermoelectric plant and water used at the A.R.I.A. waste-to-energy plants, sourced mainly from aqueducts.

(\*\*) The data refers to Acea SpA, Acea Distribuzione, Acea Produzione, LaboratoRI, Acea Ato 2, Acea Ato 5 (since 2013), SAO (since 2014).

A number of projects to enable process wastewater to be recovered and then re-used for industrial purposes were nearing completion in some organic waste composting plants. More specifically, a process water purification plant is expected to be commissioned by 2016 at the

Kyklos plant, yielding about 25% groundwater consumption savings. A system is operational at the SAO (Orvieto) waste treatment centre to collect rainwater coming from the rooftops of both the office and the treatment building. Rainwater thus collected is used to replenish the firefighting

tank and partly for sanitation purposes. Moreover, despite process-related water consumption has decreased considerably after revamping Terni waste-to-energy plant, rainwater is at any rate used in production processes to the extent as necessary and possible.

103 The companies are engaged in a detailed revision of the consumer basin and attribution of consumption, meaning that the data could be further revised.

## WATER LOSSES

In addition to applying water resources to specific uses, sustainable management also includes the limitation of losses from the distribution networks, confronting the inherent difficulties of the task. There are in fact major technological and organisational challenges in managing a water network carrying tens of millions of cubic metres of drinking water every year, using piping and infrastructure that are generally buried, and which endures great physical and chemical stresses. The “losses” topic takes on great importance, and requires application of substantial resources. The Acea group has determined to address the challenge through numerous initiatives. Two examples in 2014 are the substitution of around 37 kilometres of water mains in the di Acea Ato 5

network, and the over 250 operations conducted for detection of losses.

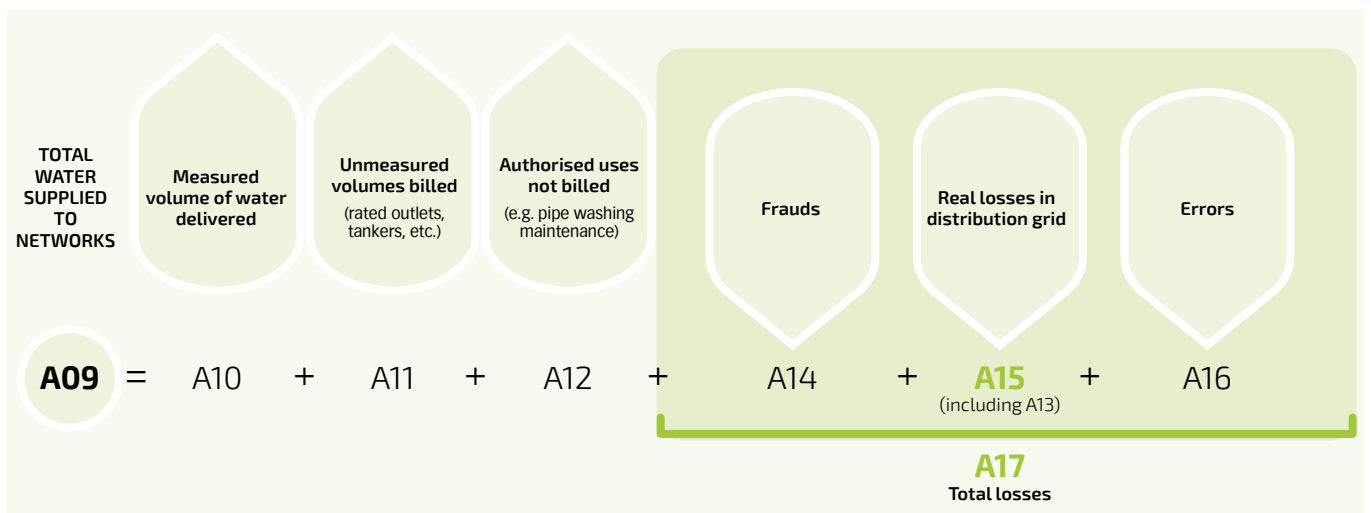
The most widely used system for measuring the effectiveness of containment actions by operators is the constant **monitoring of total values of losses** (measure A15 under Italian Ministerial Decree 99/97) from the water distribution networks. A continuous trend of declining volumes lost is the positive signal of successful management, through limiting the breakages in piping and reducing malfunctions in plants. Ministerial Decree 99/97 indicates the model to follow in reporting, permitting comparison of data from the different operators and defining the measures that must be included in their estimates. However, in 2014, AEEGSI introduced

**Resolution No. 5/2014, which added further elements to the calculation process**, which prevents comparison with the data from previous years. For further information on this topic, see the *Environmental Accounts*.<sup>104</sup>

Chart 41 illustrates **the reporting model indicated in Italian Ministerial Decree 99/97**, also considering the new requirements introduced by the aforesaid AEEGSI Resolution **for the evaluation of losses** in water networks. In 2014, **real losses**<sup>105</sup> in **Acea Ato 2**, referring to the historic networks of Rome and Fiumicino, amounted to **approximately 40% of the total input to the network**.

In **Acea Ato 5** (Frosinone), the real losses for 2014 amounted to **62%** of the total input to the network.

**CHART 41 - REAL WATER LOSSES (reporting model per Italian Ministerial Decree 99/97, supplemented by AEEGSI Resolution No. 5/2014)**



**Note:** Under Resolution No. 5/2014 of the Authority, entry A15 “real losses” also includes entry A13 “losses”, indicated under Ministerial Decree DM 99/97.

<sup>104</sup> The Water accounts for the Campania, Umbria and Tuscany companies are consolidated differently in 2014, and can be examined in the section Water company data sheets.

<sup>105</sup> Real losses, as per AEEGSI Resolution No. 5/2014, are indicated by the figures (A13 + A15): these quantify only the losses due to breakdowns and to defects in the plants (e.g. failures in pipe jointing, holes and lacerations in the pipes, structural subsidence of concrete or metal structures). This figure is obtained by subtracting the water sold (A10) and all the types of failure to deliver to the end customer: emergency consumption (A11), washing (A12), faults (A13), fraud (A14), metering errors (A16), from total water introduced into the network (A09).

# EMISSIONS, MOBILITY AND WASTE

## REPORT BOUNDARY

The scope of this section includes Acea SpA, Acea Reti e Servizi Energetici, Acea Distribuzione, LaboratoRI, Acea Produzione, as well as A.R.I.A., with two waste-to-energy plants, and the SAO plant. The reporting for the water area includes Acea Ato 2 and Acea Ato 5.

## AIR EMISSIONS

The **monitoring of air emissions from Acea plants**, particularly **waste to energy plants**, is carried out using **chemical analysers** that continuously sample the gases exiting the chimneys, providing measures of numerous parameters. These are monitored regularly by internal personnel and by qualified outside

laboratories. The results that emerge are satisfactory, with **values of main pollutants that are well below the limits laid down by law** (see Table 89). However, Acea continues research for technical solutions offering better performance regarding emissions.

TABLE 89 - AIR EMISSIONS FROM SAN VITTORE DEL LAZIO (2012-2014) AND TERNI (2013-2014) WASTE-TO-ENERGY PLANTS

POLLUTANT		UNIT OF MEASURE	San Vittore del Lazio Plant			Terni Plant		Reference parameter per: It. Leg. Decree No. 133/2005; 2000/76/CE and AIA (Terni)
			2012	2013	2014	2013	2014	
HCl	8	mg/Nm <sup>3</sup>	0.187	0.051	0.030	4.78	3.80	10
NO <sub>x</sub>	70	mg/Nm <sup>3</sup>	24.629	25.506	24.909	92.13	146.94	200
SO <sub>2</sub>	40	mg/Nm <sup>3</sup>	0.005	0.012	0.015	0.41	0.27	50
HF	1	mg/Nm <sup>3</sup>	0.031	0.006	0.022	0.190	0.230	1
CO	40	mg/Nm <sup>3</sup>	3.191	3.654	2.086	1.68	1.56	50
Total powders (particulates)	3	mg/Nm <sup>3</sup>	0.003	0.003	0.012	0.92	0.19	10
PAH (polycyclic aromatic hydrocarbons)	0.01	mg/Nm <sup>3</sup>	0.00001	0.00002	0.00002	0.01300	0.0026	0.01
Dioxins and furans (PCDD +PCDF)	0.0001	µg/Nm <sup>3</sup>	0.000019	0.000005	0.000002	0.0093	0.0019	0.1
Heavy metals (Sb, As, Pb, Cr, Co, Cu, Mn, Ni, V)	500	µg/Nm <sup>3</sup>	3.13	4.23	41.28	0.0069	0.0056	0.5

**Note:** The data for the San Vittore plant refer to the arithmetic averages from the two operating lines.

In 2014, as in previous years, the management of the San Vittore del Lazio waste-to-energy plant has included **monitoring of air quality at the territorial locations of greatest accumulation of pollutants emitted by the chimneys**, using mobile and fixed computerised equipment. This monitoring serves in the completion of the overall information on emissions. Acea also provides for periodic monitoring of the **characteristics of soils and groundwater** surrounding the plant. In 2014, two campaigns of monitoring for determination of heavy metals, of 15 days each, were conducted using two **fixed monitoring stations** situated in the communities of San

Vittore del Lazio and Cervaro. A **mobile monitoring device**, used for collection of data in the area of the San Vittore del Lazio plant, was used at six-month intervals, for campaigns of 15 days duration, for monitoring of the parameters PM<sub>10</sub>, PM<sub>2.5</sub>, in determination of PAH and furans. The mobile device was also used for determination of heavy metals. The results from **all monitoring campaigns** using both fixed and mobile monitoring devices **did not indicate any excessive levels** for the parameters measured.

There are many reliable and efficient technical solutions for maintaining emissions of

atmospheric pollutants at low levels. Acea, guided by the precautionary principle, has chosen the most advanced solutions **for its waste-to-energy plants**, equipping **the flue gas lines with treatment systems that represent the most significant technological and management investments of the entire industrial waste-treatment system**. In addition, given Acea's annual programming of objectives for improvement, and its long habit of working to management standard UNI EN ISO 14001, the Group is stimulated to adopt ever-higher targets for containment of pollutant emissions.

In the San Vittore del Lazio plant, the system for gaseous emission reductions, installed on each waste-to-energy line, is composed of the following components:

- An “**electro-filter**” – This provides the first stage of treatment of boiler gases, permitting capture and collection of ash, with subsequent periodic collection.
- A “**dry reactor**” – This uses sodium bicarbonate and activated charcoal for capture of pollutant acids, heavy metals, dioxins and furans.
- A “**fabric filter**” – This provides the second stage of exhaust gas filtration, for gathering of finer particulates. During operation, the filter becomes covered with a solid layer

of captured material, which serves for the absorption of additional pollutant substances, thus further improving the overall performance of the capture system. The solids accumulated on the fabric filters are accumulated in silos and periodically removed.

- A **system for reduction of nitrous oxides (NO<sub>x</sub>)** - called DeNO<sub>x</sub> - which uses an ammonia-reaction conversion to produce nitrogen. The responsible Group companies are currently engaged in a project for improved energy efficiency that should reduce the natural gas consumption for the DeNO<sub>x</sub> procedure by around 70% (the ammonia-NO<sub>x</sub> reaction takes place at elevated temperatures, requiring a heat source).

The system is completed by a fan, which provides the correct rate of movement of the exhaust gases through the boiler and the treatment/filter section, and their final discharge to the atmosphere via the chimney, 50 metres tall.

Acea devotes particular attention to the topic of atmospheric emissions of **carbon dioxide (CO<sub>2</sub>)**. As described in previous sections, the Group companies have provided for quantification of their CO<sub>2</sub> emissions, evaluating the carbon footprint of the individual macro-processes according to the *Greenhouse Gas Protocol* guidelines ([www.ghgprotocol.org](http://www.ghgprotocol.org)). Table 90 reports the various totals resulting from the 2014 monitoring and estimations.

**TABLE 90 - ACEA GROUP CARBON DIOXIDE EMISSIONS (2013-2014)**

CO <sub>2</sub> EMISSION TYPE <sub>2</sub> (GHG PROTOCOL)	2013 (t)	2014 (t)
scope 1 (direct) emissions <sup>106</sup>	246,218	269,475
scope 2 (electricity consumption)	473,700	452,100
<b>Total Acea Group CO<sub>2</sub> emissions</b>	<b>719,918</b>	<b>721,575</b>

**Note:** The direct emissions (scope 1) include the A.R.I.A. plants, Acea Reti e Servizi Energetici, Acea Produzione, the vehicle fleet (table 83), the SF<sub>6</sub> equivalent emissions from the Acea Distribuzione HV electrical equipment, the heating emissions (offices) and the vehicle fleet emissions. The indirect emissions (scope 2) include the companies: A.R.I.A., Aquaser, Acea Produzione, Acea Distribuzione, Acea Reti e Servizi Energetici, Acea SpA and the water companies Acea Ato 2, Acea Ato 5, Gori, Umbra Acque, Acquedotto del Fiora, Publiacqua and Acque, only for the shares owned by Acea. The value of 0.40 is applied as coefficient of emissions per unit of electrical energy consumed (t CO<sub>2</sub>/MWh), calculated based on the national fuel mix for 2012 (GME 2012 Annual report). The coefficients for the emissions of CO<sub>2</sub> per single source are from UE Recommendation 2007/589/CE. The data for 2013 have been recalculated, subsequent to observation of an error in the original reporting.

The data reported for 2014 show an increase of around 9% in the “direct” emissions (scope 1), originating from combustion processes. This should above all be considered in relation to the commissioning of the Terni waste-to-energy plant, which in 2013 had not yet become fully operational after the revamping project. The

“indirect” (scope 2) emissions related to electricity consumption decreased slightly as a result of a reduction in leakages along Rome distribution network (also see *Energy Consumption*).

The Terni plant, together with those at Montemartini and Tor di Valle, are the three Acea

thermoelectric plants subject to the *Emission Trading Scheme* (ETS). Table 91 reports the shares assigned under the NAP (National Allocation Plan) framework, together with the actual emissions over the three years of 2012-2014.

**TABLE 91 – SHARES OF EMISSIONS UNDER THE NATIONAL ALLOCATION PLAN (NAP) AND ACTUAL EMISSIONS, PER PLANT (2012-2014)**

	2012		2013		2014	
	Assigned by the NAP	Actual	Assigned by the NAP	Actual	Assigned by the NAP	Actual
Tor di Valle	235,788	23,377	13,502	29,060	11,060	21,019
Montemartini	609	1,988	0	1,344	0	121
Terni waste-to-energy plant	--	--	0	97,329	0	127,728

**Note:** The Terni waste-to-energy plant became fully operational after repowering in 2013. In 2014, the applicable legislative framework allowed the Tor di Valle plant to benefit from free of charge emission allowances (11,060 t), insofar as the plant is connected to a remote heating network.

<sup>106</sup> The data include the equivalent tonnes of CO<sub>2</sub> corresponding to the emissions of SF<sub>6</sub> insulation from the HV plants belonging to Acea Distribuzione (1 t of SF<sub>6</sub> equal to 22,800 t of CO<sub>2</sub>): 0.73 tonnes in 2013 (0.73x22,800=16,644 t) and 0.71 tonnes in 2014 (22,800x0.71=16,188 t).

Table 92 presents the summary data for atmospheric emissions, referring only to the most significant macro-pollutants resulting from the main production processes.

**TABLE 92 – TOTAL EMISSIONS OF ATMOSPHERIC POLLUTANTS FROM ACEA GROUP PLANTS (2012-2014)**

EMISSIONS	2012	2013	2014
		(t)	
CO	10.12	9.94	6.81
NO <sub>x</sub>	96.76	155.03	177.12
SO <sub>x</sub>	0.04	0.23	0.20
Particulates	0.05	0.46	0.50

**Note:** The emissions refer to the companies A.R.I.A. and Acea Produzione.

The monitoring executed for all the plants at risk<sup>107</sup> of emissions of **substances responsible for the reduction of the ozone layer** demonstrate the **absence of emissions** in any significant quantity.

### GROUP VEHICLE FLEET AND MOBILITY MANAGEMENT

In keeping with Acea's undertaking to control atmospheric emissions, the Group devotes specific attention to **renewal of the company vehicle fleet**. This includes actions for removal of older vehicles from the fleet and their replacement with vehicles of the most recent generation: in 2014 this involved acquisition of

**720 new vehicles**, mostly with diesel motors. The Group petrol and diesel consumption are shown in Table 86 and *Environmental Accounts*. A modest but positive contribution also results from the **43 electric vehicles** assigned to the operations teams of Acea Distribuzione. These are light, full-electric vehicles. Since 2012, Acea Distribuzione has been monitoring the use of these vehicles in terms of: average and maximum daily operating distances; specific consumption (km/kWh); factors of nominal battery charging and battery use; kg of reduction in carbon dioxide emissions; costs per km of operation, and savings compared to similar vehicles with internal combustion motors.

In addition, Acea Distribuzione participates in the City of Rome **project for development of electric transport**. In 2013, the company installed the first 12 recharging stations for electric vehicles, and in 2014 the company met with the responsible representatives of Enel and the City of Rome Department of Mobility, for re-identification of the remaining installation sites. Finally, at the end of 2013 the Group named an **Acea Mobility Manager**, which was then followed by the institution of a new **Mobility Management service**. The service informs all personnel on topics of sustainable mobility, indicating useful initiatives active in the Roma and Lazio territories (see in-depth box).

### ACEA ACTIVITIES IN MOBILITY MANAGEMENT

During 2014, Acea strengthened its own undertakings in **company sustainable mobility**, in cooperation with the City of Rome's mobility management programme, as implemented by Roma Capitale Mobility Agency. One of the most significant initiatives was the activation of a commercial **Convention for purchase of annual Rome and Lazio Metrebus transit passes**, available to all dependents of Acea group. The initiative gives new incentive for the use of local public transport, in place of the use of personal vehicles for commuting to and from the workplace. Prior to this initiative, the Group provided for **distribution of a voluntary questionnaire throughout the workforce**, serving in the **analysis of the staff commuting flows to and from work**, within the territory of Rome.

The Group Mobility Manager, appointed in December 2013, also supports adherence to national legislation on environmental impact from work activities by **providing innovative new mobility solutions**, such as through flexible formulas of car sharing and car-pooling, supported by custom-designed IT tools. The Mobility Manager is also contributing to increased staff awareness of the use of transport with nil or minimal impact, such as by using bicycles where possible, including electrically-assisted bicycles.

**TABLE 93 – EMISSIONS OF AIR POLLUTANTS FROM THE ACEA VEHICLE FLEET (2012-2014)**

EMISSIONS FROM VEHICLES (ACTIVE FLEET OF AROUND 2,000 VEHICLES)	2012	2013	2014	Δ% 2014/2013
		(t)		
CO <sub>2</sub>	3,993	3,166.6	3,051.4	-3.6
NO <sub>x</sub>	7.9	6.4	8.2	28.1
CO	39.5	30.7	20.5	-33.2

The data on the Group fleet emissions reflect the preferred choice for vehicles powered by diesel. In 2014, this resulted in an increase of nitrous oxide emissions, typical of this type of motor. Emissions of carbon dioxide and carbon monoxide are both in decline, with the decreasing average age of the vehicles.

<sup>107</sup> This is primarily air conditioning equipment using refrigerant gases (particularly chlorofluorocarbons) subject to the 1987 Montreal Protocol.

## ACEA GROUP WASTE

The Group continues to **manage the cycle of wastes produced**, conscious of the significant environmental importance of this aspect. Acea's commitments in this area reflect the general principles stated by the European Union on the topic. Thus, the Group favours the **reduction of waste production at source**, such as by applying stimuli interventions for the provision chain in the direction of minimizing packaging.

The Group also favours all types of “end of life” solution that can transform recovered material into newly usable resources. Company policies are in fact oriented towards increasing the **percentage of recovery of hazardous and non-hazardous wastes**, and in 2014, this share reached **64%**.

Among the various types of recovery available, the Group also considers **energy recovery**, when the recovery of the material itself is not advantageous.

For example, the sludges from sewage treatment are in large part recovered for production of high-quality compost; a small part is directed to waste-to-energy, while the part directed to landfill, without recovery, is almost nil.

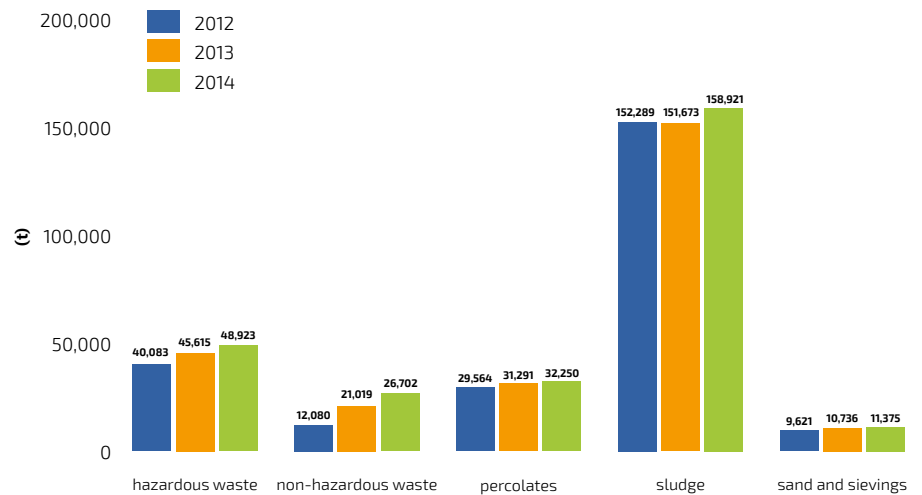
Table 94 presents the **quantitative totals of waste produced**. For further information and detail, see *Environmental Accounts*.

**TABLE 94 – TOTAL WASTE PRODUCED BY THE ACEA GROUP (2012-2014)**

TOTAL WASTE PRODUCED	2012	2013	2014
<b>All activities excluding wastewater treatment (t)</b>			
Hazardous	40,083	45,615	48,923
Non-hazardous	12,080	21,019	26,702
Non-hazardous percolates	29,564	31,291	32,250
<b>Activities for treatment of wastewater (t)</b>			
Sludges	152,289	151,673	158,921
Sand and sievings	9,621	10,736	11,375

**Note:** The data refer to the companies: A.R.I.A., Aquaser, Acea Produzione, Acea Distribuzione, Acea Reti e Servizi Energetici, Acea SpA and the water companies Acea Ato 2 and Acea Ato 5. The data on refuse from *Publiacqua, Acque, Acquedotto del Fiora, Umbra Acque and Gori* are available in the section *Water company data sheets*.

**CHART 42 – ACEA GROUP WASTE PRODUCTION (2012-2014)**



In November 2014, **AMA and Acea** signed a memorandum of understanding for a **new cooperative approach** to segregated collection of office wastes: this initiative is one of particular

cultural and symbolic value. The “zero year” for the project was 2014. In this year, the Acea head office on Piazzale Ostiense in Rome, with a staff presence of more than 1,700 persons per day,

achieved recovery of around **460 tonnes of paper** and **263 tonnes of plastic**: the Group expects rapid increase in these figures beginning in 2015.



# RESEARCH

Research and development activities are carried out in the different Group business areas. The primary research subjects concern **technological innovation**, and the activities are often conducted in synergy with research institutions and higher-education institutions in the science fields (see also *Institutions and the Company*). The following list summarises some of the main projects under way.

## Acea Distribuzione:

- The **Smart Grid** project, involving development of innovative solutions for integration of distributed generation and improvement in service continuity - The company completed the stage of in-field installation in 2013, and in 2014 both initiated and completed the monitoring stage.
- The **Smart Network Management System (SnMS)** project – This project involves technological evolution in management of the electrical distribution network, through the sub-project *Smart Grid Intelligence*, for introduction of technologies of data examination and integration. The new technologies will be applied for improved monitoring and analysis of the medium and low-voltage distribution network, permitting real-time identification of weak points in the networks, and thus direction of interventions and prediction of service-interruption events.
- The **Resilience Enhancement of a Metropolitan Area (RoMA)** project, developed by Acea Distribuzione with other partners, for improvement in the capacity of “city” systems to react to emerging situations of critical environmental conditions (see in-depth box in the section *Institutions and the company*).
- Experimental application of “**biodegradable oil in power transformers**” – In 2014, Acea Distribuzione, in cooperation with other partners,<sup>108</sup> initiated experimentation in the use of natural, biodegradable oil as an insulation liquid for power transformers, in place of mineral oil. The organic character of the oil ensures that in the case of spills, the pollutant effect is almost nil. The high temperature of spontaneous combustion for such oils also provides important reductions in fire risks. In 2015, the project will begin experimentation with six transformers per secondary substations, to test the behaviour of the oil over time.

## Acea Ato 2:

- In 2014, Acea Ato 2 continued activity for the analysis of the water network and the **identification and repair of losses**. This work is conducted in cooperation with the company LaboratoRI: the most important interventions concerned the municipality of Velletri. The company also **launched activities for redefining and checking the boundaries of the Rome and Province of Rome water districts**, in order to supplement the water system management schemes and systemize the water balances. In 2014, the company completed redefinition of 40 water districts in Rome, 26 in the municipalities of the North Network, and 55 in the municipalities of the South Network.
- In the area of **treatment processes for wastewater**, the company conducted numerous studies with objectives for: application of advanced “compact” technologies for updating of large wastewater treatment plants; evaluation of performance and critical conditions in the tertiary treatment systems currently in use (filtration, disinfection); definition of methods for monitoring impacts of odours, using “electronic noses” and mathematical simulation models; analysis of improved technological solutions for treatment of odorous emissions from the sludge production lines (see also Table 95).

## Acea Ato 5:

- The company continued research into losses from the networks. Activities in 2014 included substitution of around 37 kilometres of water mains and over 250 interventions for the activities of leak detection.

## A.R.I.A.:

- The company is currently considering a project for changes in the process of **NO<sub>x</sub> capture at the San Vittore del Lazio waste-to-energy** plant, which would permit a reduction in the use of ammonia solutions and methane (see the report section *Air emissions*).

## LaboratoRI:

- The company continued its consulting work for the management and optimisation of Membrane Bioreactor (MBR)-Inverse Osmosis treatment plant for pulper extraction water, for the Terni waste-to-energy plant.
- Continuing from 2013, the company conducted functional testing of drinking water treatment plants for Acea Ato 5, as well as the study of instability in water supplies and precipitation phenomena in water systems for new communities, in particular: Arce, Ceprano, Col Felice, Fontana Liri and Broccostella;
- For Acea Produzione, the company provided consultancy on the modernisation and renovation of the cogeneration plant at Tor di Valle.

Apart from the above development of research studies and innovation, the Group also developed cooperative initiatives with the scientific community. Among these:

- Surface water bodies of the Tiber and Aniene rivers – Further research on correlation between biological indices and concentration of nutrients (with University of Rome ‘La Sapienza’);
- New Pertuso aqueduct – Pre-project monitoring plan for environmental components, for adherence to legislative requirement on Evaluation of environmental impact (VIA) (University of Rome ‘La Sapienza’);
- Peschiera springs – Development of accelerometric and micro-accelerometric networks for monitoring of potential vibration events in the system (Ceri Research Centre).

Research activities in the water area were conducted in further cooperative projects involving **LaboratoRI** and **Acea Ato 2**. The main initiatives in this area are summarised in Table 95.

108 The project partners are Enel Distribuzione, Terna, the power-transformer manufacturing companies and the supplier companies for the oil used.

**TABLE 95- PRINCIPLE JOINT RESEARCH ACTIVITIES CONDUCTED BY LABORATORI AND ACEA ATO 2**

<b>PROJECT TITLE (YEAR)</b>	<b>DESCRIPTION</b>
<b>SOURCES AND QUALITY OF DRINKING WATER</b>	
<i>Protected areas (2014)</i>	The activities under way are for preparation of technical proposals for the protected areas of the water sources: Le Capore, Ceraso, Cerreto, Valga delle Rosce, Ronci, and the Acqua Vergine aquifer; and for improved delineation of the areas of protection for the Salone, Torre Angela, Pantano Borghese and Finocchio plants.
<i>Definition of interventions for optimising the distribution network: Task force Velletri (2014)</i>	The aim is to address the water emergencies experienced by the municipality of Velletri. Activities for optimisation and remediation of the network were conducted, consisting of topographic mapping; measurement campaigns for pressure and flow; analysis of the network and consumers active. The final objectives of these actions are for water balancing, mathematical modelling, and campaigns for research of losses.
<i>Optimisation and testing of the treatment process function for drinking water – plants in ATO 2 (2014)</i>	The objectives are: optimisation, testing of performance, and functional testing of 31 drinking-water treatment plants installed in ATO 2, for the removal of arsenic, fluoride and other contaminants (aluminium, manganese, iron); definition of specific new plants to be construction; start-up of new plants.
<b>WASTEWATER TREATMENT PLANTS</b>	
<i>Advanced treatment in large waste-water plants (2014)</i>	Studies were conducted on the feasibility of applying advanced “compact” technologies for updating of the large City of Rome wastewater treatment plants, in view of the limited capacities for increasing volumetric capacities. The analyses concerned: biological aerated filters (BAF) systems; processes for treatment of surface sewage (supernatants) with digestion of sludges; phosphorous removal; final filtration).
<i>Odorous emission in wastewater treatment plants (2014)</i>	The activities involve several lines of research: <ul style="list-style-type: none"> <li>• Experimental application, evaluation and definition of methodologies of olfactory impact through continuous measurement by “electronic noses”;</li> <li>• Application of mathematical simulation models of the spillover of odorous compounds in treatment plants;</li> <li>• Methodological experimentation for control of odorous compounds in cooperation with Enea</li> <li>• Identification of improved technical solutions for treatment of odorous emissions from the sludge line, refereeing to different plant dimensions (small, medium, large).</li> </ul>
<b>SEWER NETWORKS</b>	
<i>Updating of inflow and outflow models for sewerage basins (model urban drainage project - 2004-2013; updating of monitoring in the Environmental Control Room - 2014)</i>	Work focuses on the integrated analysis of the function of the Rome sewerage system, through instruments for modelling the drainage system that can simulate the function under different conditions, in particular for evaluating the response under significant rainfall events. The activities in 2014 concentrated on research and updating of the modelling, in particular where the knowledge level is less advanced (COBIS wastewater treatment plant). The results were used for improved structuring of the monitoring system in the Environmental Control Room.

# WATER COMPANIES' DATA SHEETS

## WATER ACTIVITIES IN CAMPANIA, UMBRIA, E TOSCANA

The reporting here provides the information and data for the environmental accounting of the principle Group companies operating in the water sector. Beginning in 2014, these companies are consolidated in the Group statutory financial statements using the "shareholders' equity" method.

In 2014, the calculation of the Water sector reporting, particularly for water losses, follows the criteria under AEEGSI Resolution No. 5/2014 (Attachment 2)..

### GORI

Gori SpA manages the integrated water service in Campania, across the territory covered by ATO 3 - Sarnese Vesuviano.

Gori SpA is a share company with predominantly public capital, where the minority private

owner (which holds 37.05% of capital) was identified based on its technical-industrial and management capacities. The private owner in this case is Sarnese Vesuviano Srl, a company with 99.16% of capital held by Acea SpA. ATO 3 - Sarnese Vesuviano includes 76

municipalities (59 in the Province of Naples and 17 in the Province of Salerno), acquired under full management at 31/12/2009. The area has a population of around 1,450,000, with over 500,000 consumers; the water and sewer networks consist of, respectively, over 4,300 km and 2,400 km.

### WATER SYSTEM MANAGED BY GORI SPA

	2013	2014
Aqueducts and feed-in networks (km)	354	<b>353</b>
Distribution network (km)	4,068	<b>4,033</b>
Well intake structures (no.)	85	<b>71</b>
Spring intake structures (no.)	9	<b>9</b>
Pumping stations (no.)	115	<b>98</b>
Reservoirs (no.)	180	<b>158</b>

### WASTEWATER TREATMENT AND SEWERAGE PLANTS MANAGED BY GORI SPA

	2013	2014
Wastewater treatment plants (no.)	11	<b>11</b>
Sewer pumping stations (no.)	161	<b>156</b>
Sewer networks (km)	2,227	<b>2,300</b>

### GORI SPA ENVIRONMENTAL ACCOUNTS

PRODUCTS AND ANALYTICAL TESTS	Unit measure	2012	2013	2014	Δ% 2014/2013
<b>Drinking water</b>					
Drinking water from sources	Mm <sup>3</sup>	38.83	38.84	<b>39.36</b>	1.3
<i>from wells</i>	Mm <sup>3</sup>	36.19	36.27	36.96	1.9
<i>from springs</i>	Mm <sup>3</sup>	2.64	2.57	2.40	-6.6
Water from other aqueduct systems	Mm <sup>3</sup>	175.78	176.17	<b>167.57</b>	-4.9
Drinking water input to network	Mm <sup>3</sup>	214.61	215.02	<b>206.93</b>	-3.8
Total drinking water supplied	Mm <sup>3</sup>	91.12	87.56	<b>91.29</b>	4.3
<b>Evaluation of losses according to Italian Ministerial Decree No. 99/97, and since 2014 in conformity with AEEGSI Resolution No. 5/2014</b>					
Overall losses (Measure A17 MD 99/97)	Mm <sup>3</sup>	123.49	126.37	<b>115.64</b>	-8.5
Real losses (Measure A15 MD 99/97)	Mm <sup>3</sup>	94.62	95.06	<b>105.87</b>	11.4
<b>Waste water treated</b>					
Water treated in the main treatment stations	Mm <sup>3</sup>	8.0	8.0	<b>12.6</b>	57.5
<b>Analytical tests of drinking water and waste water</b>					
No. of analytical tests of drinking water	n.	70,488	71,409	<b>75,113</b>	5.2
No. of analytical tests of waste water (*)	n.	386	13,333	<b>15,037</b>	12.8

(\*) Includes analytical testing on water exiting wastewater treatment.

RESOURCES USED	Unit measure	2012	2013	2014	Δ% 2014/2013
<b>Capture, input and distribution of potable and non-potable water</b>					
<b>Materials</b>					
Sodium hypochlorite	t	121.0	127.0	129.9	2.3
<b>Electrical energy</b>					
Electrical energy for water pumping stations	GWh	45.91	44.96	45.28	0.7
<b>Wastewater treatment</b>					
<b>Materials</b>					
Polyelectrolytes	t	24.4	23.0	44.7 (#)	94.4
Sodium hypochlorite for final disinfection	t	51.2	75.5	83.8	11.0
Ferric chloride	t	0	9.6	86.3 (*)	-
Aluminium polychloride (PAC)		0	12.4	13.1	5.6
Paracetic acid, caustic soda, polyamines and other	t	104.2	102.9	128.5	24.9
Mineral oil and grease	t	0.3	0.2	2.0 (#)	-
<b>Electrical energy for waste water</b>					
<b>Total energy for waste water</b>	<b>GWh</b>	<b>8.9</b>	<b>12.13</b>	<b>14.33</b>	18.1
electrical energy for sewer pumping stations	GWh	8.9	4.82	4.34	-10.0
electrical energy for treatment	GWh	n.a.	7.31	9.99	36.7
<b>Other consumption</b>					
Total water consumed for civil water uses and for processes	m <sup>3</sup>	n.a.	111	1,972	-
of which for civil uses	m <sup>3</sup>	n.a.	n.a.	1,880 (#)	-
of which for civil uses and for processes	m <sup>3</sup>	n.a.	n.a.	92 (**)	-

(#) The significant increase in consumption of some materials, seen in 2014, arises from extraordinary management at the Scafati wastewater treatment plant.

(\*) In 2013, the product was used at Gasto for only three months, while in 2014 the use began in the month of March.

(\*\*) The 92 m<sup>3</sup> figure concern the total water used both for civil uses and processes, since some plants lack differentiated meters. These will be installed in 2015.

WASTES	U. M.	2012	2013	2014	Δ% 2014/2013
<b>Wastes specific to wastewater treatment</b>					
Treatment sludges	t	3,136	3,528	10,700 (*)	203.3
Sand and sediments from treatment	t	465	552	1,988 (*)	260.1
<b>Wastes (as per Leg. Dec. No. 152/06) excluding sludges and sands</b>					
Hazardous wastes	t	0.13	0.079	5.2 (**)	-
Non-hazardous wastes	t	97.26	1.76	0.01 (**)	-

(\*) The increase in treatment sludges recorded for 2014 arises from the entry into operation of a new wastewater treatment plant.

(\*\*) As in previous years, the variability in quantities of hazardous and non-hazardous wastes derives from wastewater treatment processes. Excluding sludges, screenings and sand, these are linked to uncontrollable external factors, and therefore can be highly variable.

The sludges, sands and sediments are disposed of both through recovery of a fraction and through routing to landfill for the remainder (Codes D1 and D15, as per Attachment B of Italian Legislative Decree 22/97). In 2014, the share recovered was 985 tonnes of sludges (R3)<sup>109</sup>, equivalent to 9.2% of total.

TOTAL INPUT AND OUTPUT COD (COD IN TONNES/YEAR)	
COD <sub>out</sub>	= 120 t/yr
COD <sub>in</sub>	= 1.666 t/yr

109 R3 = Recycling/recovery of organic substances not used as solvents (including in composting and other biological transformation operations).

## OUTPUT PARAMETERS FOR THE MAIN WASTEWATER TREATMENT PLANTS MANAGED BY GORI SPA

Effluent parameter	average value (mg/l) 2012	average value (mg/l) 2013	average value (mg/l) 2014
<b>BOD<sub>5</sub></b>	8.5	7.1	<b>9.2</b>
<b>COD</b>	51.9	39.4	<b>28.3</b>
<b>SST</b>	8.1	10.2	<b>13.9</b>
<b>Ammonium NH<sub>4</sub><sup>+</sup></b>	0.9	2.2	<b>2.3</b>
<b>Phosphorous</b>	1.2	1	<b>0.9</b>

## TREATMENT EFFICIENCY IN THE MAIN WASTEWATER TREATMENT PLANTS MANAGED BY GORI SPA

Parameter	average value (%) 2012	average value (%) 2013	average value (%) 2014
$100 \times (\text{COD}_{in} - \text{COD}_{out}) / \text{COD}_{in}$	89	87	<b>93</b>
$100 \times (\text{SST}_{in} - \text{SST}_{out}) / \text{SST}_{in}$	97	94	<b>91</b>
$100 \times (\text{NH}_{4\text{ in}}^{+} - \text{NH}_{4\text{ out}}^{+}) / \text{NH}_{4\text{ in}}^{+}$	98	94	<b>93</b>
$100 \times (\text{PO}_{4\text{ in}}^{-3} - \text{PO}_{4\text{ out}}^{-3}) / \text{PO}_{4\text{ in}}^{-3}$	79	74	<b>80</b>

### UMBRA ACQUE

Umbra Acque SpA is a share company with predominantly public capital, with 40%

participation by Acea SpA. At 01/01/2003, the company manages the integrated water service for ATO - Umbria 1, consisting of 38 municipalities,

of which 37 in the Province di Perugia and 1 (San Venanzo) in the Province of Terni, with a total population of around 500,000 inhabitants.

### WATER SYSTEM MANAGED BY UMBRA ACQUE SPA (\*)

	2013	2014
Aqueducts and feed-in networks (km)	385	<b>385</b>
Distribution network(km)	6013	<b>6013</b>
Well intake structures (no.)	215	<b>215</b>
Spring intake structures (no.)	267	<b>267</b>
River intake structures (no.)	2	<b>2</b>
Pumping stations (no.)	161	<b>161</b>
Piezometers (no.)	1	<b>1</b>
Reservoirs (no.)	552	<b>552</b>
Treatment plants (no.) (**)	60	<b>60</b>

(\*) The data reported were originally indicated in information communicated to AEEGSI on the dimensions of infrastructure, and reflect the classification for those purposes.

(\*\*) Including disinfection plants.

### WASTEWATER TREATMENT AND SEWERAGE PLANTS MANAGED BY UMBRA ACQUE SPA

	2013	2014 (*)
Wastewater treatment plants (no.)	121	<b>121</b>
Sewer pumping stations (no.)	189	<b>189</b>
Sewer networks (km)	3.541	<b>3.541</b>

(\*) The data reported were originally indicated in information communicated to AEEGSI on the dimensions of infrastructure, and show the classification for those purposes.

### CERTIFICATIONS

In previous years, the company obtained the following certifications: **ISO 9001:2008**, renewed March 2012 and expiring 06/04/2015; **SOA**, for category OG6 in class II, OS22 in class III, and

Qualification for planning and construction performance up to class VIII. In **March 2014** the Umbra Acque analytical laboratory, already included under **ISO 9001** certification, was certified by the **ACCREDIA** agency under standard

**UNI EN CEI ISO/IEC 17025:2005**, for the parameters of pH and manganese in natural water matrices.

## UMBRA ACQUE SPA ENVIRONMENTAL ACCOUNTS

PRODUCTS AND ANALYTICAL TESTS	Unit measure	2012	2013	2014	Δ% 2014/2013
<b>Drinking water</b>					
Drinking water from sources	Mm <sup>3</sup>	59.30	57.05	<b>57.43</b>	0.7
<i>from lakes/rivers</i>	Mm <sup>3</sup>	1.18	0.92	<b>0.88</b>	-4.3
<i>from wells</i>	Mm <sup>3</sup>	45.27	39.33	<b>41.80</b>	6.3
<i>from springs</i>	Mm <sup>3</sup>	12.85	16.80	<b>14.75</b>	-12.2
Drinking water input to network	Mm <sup>3</sup>	59.07	56.8	<b>57.20</b>	0.7
Total drinking water supplied	Mm <sup>3</sup>	31.09	28.45	<b>27.38</b>	-3.8
<b>Evaluation of losses according to Italian Ministerial Decree No. 99/97, and since 2014 in conformity with AEEGSI Resolution No. 5/2014</b>					
Overall losses (Measure A17 MD 99/97)	Mm <sup>3</sup>	23.5	24.17	<b>25.19</b>	4.2
Real losses (Measure A15 MD 99/97)	Mm <sup>3</sup>	21.9	22.69	<b>23.76</b>	4.7
<b>Waste water treated</b>					
Water treated in the main treatment stations	Mm <sup>3</sup>	53.0	59.1	<b>60.7</b>	2.7
<b>Analytical tests of drinking water and waste water</b>					
Analytical tests of drinking water	n.	80,257	80,205	<b>74,880</b>	- 7.1
Analytical tests of waste water	n	45,124	44,932	<b>41,909</b>	- 7.2
Analytical tests of surface water	n	2,900	2,500	<b>2,200</b>	- 13.6

**Note:** The data for the period reported were recalculated according to the criteria indicated in AEEGSI Resolution No. 5/2014 (Attachment 2).

RESOURCES USED	Unit measure	2012	2013	2014	Δ% 2014/2013
<b>Capture, input and distribution of potable and non-potable water</b>					
<b>Materials</b>					
Sodium hypochlorite	t	75.28	87.2	<b>80.7</b>	-7.4
Aluminium polychloride	t	3.5	4.5	<b>3.0</b>	-33.3
Hydrochloric acid	t	171	153.5	<b>172.0</b>	12.1
Sodium chlorite	t	145.1	150.5	<b>164.0</b>	9.1
Phosphoric acid 10%	t	nd	nd	<b>2.15</b>	-
Acetic acid	t	nd	nd	<b>49.22</b>	-
<b>Electrical energy</b>					
Electrical energy for water pumping stations	GWh	75.04	60.57	<b>62.06</b>	<b>2.5</b>
<b>Wastewater treatment</b>					
<b>Materials</b>					
Polyelectrolytes	t	69.4	55.8	<b>49.4</b>	-11.4
Ferric chloride	t	145.6	52.9	<b>20.5</b>	-61.3
Antifoaming agent	t	6.0	11	<b>4.4</b>	-60.2
Sulphuric acid 50%, caustic soda, aluminium polychloride	t	nd	nd	<b>215.48</b>	-
Mineral oil and grease	t	0.81	1.15	<b>1.06</b>	-7.8
<b>Electrical energy for waste water</b>					
<b>Total energy for wastewater</b>	<b>GWh</b>	<b>21.14</b>	<b>20.69</b>	<b>21.38</b>	<b>3.3</b>
<i>electrical energy for treatment</i>	GWh	16.85	16.02	<b>16.60</b>	3.6
<i>electrical energy for pumping stations</i>	GWh	3.84	5.33	<b>4.78</b>	-10.3
<b>Other consumption</b>					
Water consumed for civil uses	m <sup>3</sup>	n.a.	2,269	<b>2,372</b>	4.5
Water consumed for process uses	m <sup>3</sup>	n.a.	22,622	<b>23,424</b>	3.6

WASTES	Unit measure	2012	2013	2014	Δ% 2014/2013
<b>Wastes specific to wastewater treatment</b>					
Treatment sludges	t	25,415	18,728	<b>18,421</b>	-1.6
Sand and sediments from treatment	t	1,346	1,851	<b>1,578</b>	-14.7
<b>Wastes (as per Leg. Dec. No. 152/06) excluding sludges and sands</b>					
Hazardous wastes	t	9.84	17.48	<b>11.04</b>	-36.8
Non-hazardous wastes	t	3,209.34	6,496.65	<b>16,111.26</b>	148.0

#### TOTAL INPUT AND OUTPUT COD (COD IN TONNES/YEAR)

COD<sub>out</sub> = 2.556,684 t/yr

COD<sub>in</sub> = 18.155,98 t/yr

#### OUTPUT PARAMETERS FOR THE MAIN WASTEWATER TREATMENT PLANTS MANAGED BY UMBRA ACQUE SPA

Effluent parameter	average value (mg/l) 2012	average value (mg/l) 2013	average value (mg/l) 2014
BOD <sub>5</sub>	15.0	19.1	<b>13.2</b>
COD	47.0	51.5	<b>42.1</b>
SST	13.6	19.9	<b>16.8</b>
Ammonium NH <sub>4</sub> <sup>+</sup>	8.4	6.6	<b>5.8</b>
Phosphorous	2.4	2.0	<b>1.9</b>

#### TREATMENT EFFICIENCY IN THE MAIN WASTEWATER TREATMENT PLANTS MANAGED BY UMBRA ACQUE SPA

Parameter	average value (%) 2012	average value (%) 2013	average value (%) 2014
$100 \times (\text{COD}_{in} - \text{COD}_{out}) / \text{COD}_{in}$	94,9	96,1	<b>85,9</b>
$100 \times (\text{SST}_{in} - \text{SST}_{out}) / \text{SST}_{in}$	83,1	79,8	<b>93,3</b>
$100 \times (\text{NH}_4^+ \text{in} - \text{NH}_4^+ \text{out}) / \text{NH}_4^+ \text{in}$	88,7	85,2	<b>82,9</b>
$100 \times (\text{PO}_4^{3-} \text{in} - \text{PO}_4^{3-} \text{out}) / \text{PO}_4^{3-} \text{in}$	38,4	28,6	<b>35,2</b>

#### ENVIRONMENTAL EXPENDITURES<sup>110</sup>

The overall environmental expenditures in 2014 amount to around **9.8 million euros**, divided as indicated below.

#### ENVIRONMENTAL EXPENDITURES 2012 - 2014 (IN EUROS)

Description (2001/453/CE)	Investments 2012	Operations 2012	Investments 2013	Operations 2013	Investments 2014	Operations 2014
Laboratory	102,600	480,000	136,700	502,500	<b>137,000</b>	<b>600,908</b>
Waste management and sludge disposal	0	2,667,150	0	1,827,780	<b>0</b>	<b>1,993,830</b>
Waste and sludge transport	0	0	0	0	<b>0</b>	<b>153,905</b>
Chemical products for treatment of drinking water	0	0	0	0	<b>0</b>	<b>138,540</b>
Water plants	4,547,000	0	4,796,000	0	2,037,285	<b>0</b>
Wastewater treatment plants	1,079,000	0	2,720,000	0	<b>4,344,210</b>	0
TLC (telecommunication) plants	200,000	295,000	215,000	318,000	<b>215,000</b>	128,000
Energy efficiency	0	0	0	0	<b>65,000</b>	<b>0</b>
<b>Total</b>	<b>5.928.600</b>	<b>3.442.150</b>	<b>7.867.700</b>	<b>2.648.281</b>	<b>6.798.495</b>	<b>3.015.183</b>

<sup>110</sup> In keeping with **European Commission Recommendation 2001/453/CE**, the "environmental expenditures" of a company include the cost of "steps taken by an undertaking or on its behalf by others to prevent, reduce or repair damage to the environment which results from its operating activities. These **costs include**, amongst others, the disposal and avoidance of waste, the protection of soil and of surface water and groundwater, the protection of clean air and climate, noise reduction, and the protection of biodiversity and landscape." Costs that **should be excluded** are those whose primary purpose is to respond to other needs, for instance to increase profitability, health and safety at the workplace, safe use of the company's products or production efficiency.

## PUBLIACQUA

Publiacqua SpA is a mixed company with majority public ownership; Acea participation is through the company Acque Blu Fiorentine SpA. Since 2002, the Publiacqua SpA manages an integrated water system in ATO 3 – Medio Valdarno. The territory includes 1.2 million inhabitants, with cities of great cultural-historic value such as Florence, Prato and Pistoia.

### WATER SYSTEM MANAGED BY PUBLIACQUA SPA

	2013	2014
Aqueducts and feed-in networks (km)	1,336	<b>1,331</b>
Distribution network (km)	5,813	<b>5,812</b>
Well intake structures (no.)	592	<b>584</b>
Spring intake structures (no.)	866	<b>858</b>
River intake structures (no.)	63	<b>61</b>
Lake intake structures (no.)	21	<b>20</b>
Pumping stations (no.)	416	<b>417</b>
Reservoirs (no.)	912	<b>912</b>
Treatment plants (no.)	108	<b>107</b>

### WASTEWATER TREATMENT AND SEWERAGE PLANTS MANAGED BY PUBLIACQUA SPA

	2013	2014
Wastewater treatment plants (no.)	129	<b>129</b>
Sewer pumping stations (no.)	198	<b>194</b>
Sewer networks (km)	4,377	<b>3,977</b>

#### CERTIFICATIONS

Publiacqua holds quality certification **UNI EN ISO 9001:2008**, and environmental certification **UNI EN ISO 14001:2004** for "Planning and management of tenders for the construction of integrated water services and for

provision of integrated water services". In addition, Publiacqua Ingegneria holds quality certification for "Planning, direction and testing of works for integrated water services".

Some of the data for the company environmental report concerning the years 2012 and 2013 have been adjusted in view of small changes in data recorded following the closing of accounting for 2013.

#### PUBLIACQUA SPA ENVIRONMENTAL ACCOUNTS

PRODUCTS AND ANALYTICAL TESTS	Unit measure	2012	2013	2014	Δ% 2014/2013
<b>Drinking water</b>					
Drinking water from sources	Mm <sup>3</sup>	167.4	166.3	<b>164.8</b>	-0.9
<i>from lakes/rivers</i>	Mm <sup>3</sup>	110.6	110.9	109.7	-1.1
<i>from wells</i>	Mm <sup>3</sup>	43.6	43.2	43.2	0.0
<i>from springs</i>	Mm <sup>3</sup>	12.2	12.2	11.9	-2.5
Drinking water input to network	Mm <sup>3</sup>	152.1	150.6	<b>149.3</b>	-0.9
Total drinking water supplied	Mm <sup>3</sup>	84.0	83.5	<b>83.5</b>	0.0
<b>Evaluation of losses according to Italian Ministerial Decree No. 99/97, and since 2014 in conformity with AEEGSI Resolution No. 5/2014</b>					
Overall losses (Measure A17 MD 99/97)	Mm <sup>3</sup>	58.87	57.96	<b>56.70</b>	-2.2
Real losses (Measure A15 MD 99/97)	Mm <sup>3</sup>	47.92	47.11	<b>45.90</b>	-2.6
<b>Waste water treated</b>					
Water treated in purification plants	Mm <sup>3</sup>	91.9	105.7	<b>110.0</b>	4.1
<b>Analytical tests of drinking water and waste water</b>					
No. of analytical tests of drinking water	n.	189,508	192,653	<b>185,399</b>	-3.8
No. of analytical tests of waste water	n.	34,405	37,664	<b>38,869</b>	3.2

**Note:** The data for the period reported were recalculated according to the criteria indicated in AEEGSI Resolution No. 5/2014 (Attachment 2).



RESOURCES USED	Unit measure	2012	2013	2014	Δ% 2014/2013
<b>Capture, input and distribution of potable and non-potable water</b>					
<b>Materials</b>					
Flocculants	t	6,400	6,670	6,260	-6.1
Hydrochloric acid	t	530	383	437	14,1
Sodium chlorite	t	395	281	482	71,5
Sodium hypochlorite	t	1,902	1,458	1,493	2,4
Powdered charcoal	t	117	150	84	-44,0
Purate	t	415	457	413	-9,6
Sulphuric acid	t	616	665	691	3,9
<b>Electrical energy</b>					
Electrical energy for pumping stations	GWh	80.4	74.2	75.512	1.67
<b>Wastewater treatment</b>					
<b>Materials</b>					
Polyelectrolytes	t	264	230	226	-1.7
Sodium hypochlorite for disinfection	t	26	10	13	30,0
Lime	t	112	142	233	64,1
Aluminium polychloride 18%	t	1698	2,148	2,237	4,1
Antifoaming agent	t	3	2	2	0,0
<b>Electrical energy</b>					
Electrical energy for waste water	GWh	33.56	33.94	33.03	-2.7
<b>Other consumption</b>					
Water consumed for civil uses	Mm <sup>3</sup>	52.6	50.8	48.9	-3.7

WASTES	Unit measure	2012	2013	2014	Δ% 2014/2013
<b>Wastes specific to wastewater treatment</b>					
Treatment sludges	t	24,126	23,977	25,639	6.9
Sand and sediments from treatment	t	1,388	1,969	1,793	-8.9
<b>Waste (as per Leg. Dec. No. 152/06) excluding sludges and sands</b>					
Hazardous wastes	t	35	21	35	66.7
Non-hazardous wastes		15,220	15,992	14,016	-12.4

#### TOTAL INPUT AND OUTPUT COD (COD IN TONNES/YEAR)

COD<sub>out</sub> = 2.088 t/yr  
 COD<sub>in</sub> = 17.020 t/yr

#### OUTPUT PARAMETERS OF THE MAIN WASTEWATER TREATMENT PLANTS MANAGED BY DA PUBLIACQUA SPA: SAN COLOMBANO

Effluent parameter	average value (mg/l) 2012	average value (mg/l) 2013	average value (mg/l) 2014
BOD <sub>5</sub>	2.6	2.9	2.4
COD	18.8	20.4	19.3
SST	5	6.5	6.0
Ammonium NH <sub>4</sub> <sup>+</sup>	1.6	1.9	0.6
Phosphorous	1.1	0.9	1.0

Note: The San Colombano wastewater treatment plant (600,000 PE) treats around half the global total.

**OUTPUT PARAMETERS: Group of 36 wastewater treatment plants,**  
including San Colombano, which overall treat 98% of the waste water and 96% of organic load (COD) for Publiacqua

Effluent parameter	average value (mg/l) 2012	average value (mg/l) 2013	average value (mg/l) 2014
<b>BOD<sub>5</sub></b>	2.9	3.2	<b>2.5</b>
<b>COD</b>	21	21.1	<b>19.3</b>
<b>SST</b>	5.4	7.3	<b>7.3</b>
<b>Ammonium NH<sub>4</sub><sup>+</sup></b>	1.8	2.0	<b>1.3</b>
<b>Phosphorous</b>	1.5	1.1	<b>1.5</b>

**TREATMENT EFFICIENCY OF THE MAIN WASTEWATER TREATMENT PLANT MANAGED BY PUBLIACQUA SPA: SAN COLOMBANO**

Parameter	average value (%) 2012	average value (%) 2013	average value (%) 2014
$100 \times (\text{COD}_{\text{in}} - \text{COD}_{\text{out}}) / \text{COD}_{\text{in}}$	86.6	83.7	<b>83.3</b>
$100 \times (\text{SST}_{\text{in}} - \text{SST}_{\text{out}}) / \text{SST}_{\text{in}}$	89.8	89.3	<b>87.6</b>
$100 \times (\text{NH}_4^+_{\text{in}} - \text{NH}_4^+_{\text{out}}) / \text{NH}_4^+_{\text{in}}$	93.7	91.6	<b>97.6</b>
$100 \times (\text{PO}_4^{3-}_{\text{in}} - \text{PO}_4^{3-}_{\text{out}}) / \text{PO}_4^{3-}_{\text{in}}$	62.2	66.2	<b>60.1</b>

**TREATMENT EFFICIENCY: Group of 36 wastewater treatment plants,**  
including San Colombano, which overall treat 98% of waste water and 96% of organic load (COD) for Publiacqua

Parameter	average value (%) 2012	average value (%) 2013	average value (%) 2014
$100 \times (\text{COD}_{\text{in}} - \text{COD}_{\text{out}}) / \text{COD}_{\text{in}}$	89.5	87.2	<b>92.0</b>
$100 \times (\text{SST}_{\text{in}} - \text{SST}_{\text{out}}) / \text{SST}_{\text{in}}$	94.6	92.5	<b>94.5</b>
$100 \times (\text{NH}_4^+_{\text{in}} - \text{NH}_4^+_{\text{out}}) / \text{NH}_4^+_{\text{in}}$	93.6	91.2	<b>95.1</b>
$100 \times (\text{PO}_4^{3-}_{\text{in}} - \text{PO}_4^{3-}_{\text{out}}) / \text{PO}_4^{3-}_{\text{in}}$	61.8	63.3	<b>59.8</b>

(\*) Calculated as total P.

**ENVIRONMENTAL EXPENDITURES**

The environmental expenditures for 2014 amount to a total of around Euro 69.9 million, divided as reported below.

**ENVIRONMENTAL EXPENDITURES 2012 - 2014 (EURO)**

Description (2001/453/CE)	Investments 2012	Operations	Investments 2013	Operations 2013	Investments 2014	Operations 2014
Sewerage	23,974,723	9,696,075	19,349,142	8,485,549	<b>22,391,749</b>	<b>11,518,964</b>
<i>of which for sludges and waste disposal</i>	0	22,647	0	9,360	0	66,646
Waste water treatment	3,644,270	16,221,448	5,124,337	14,129,716	<b>5,916,841</b>	<b>27,251,830</b>
<i>of which for sludges and waste disposal</i>	0	2,162,393	0	1,652,030	0	2,127,293
Remote control systems	1,060,066	32,084	651,586	31,4054	<b>259,955</b>	<b>12,636</b>
Laboratory	96,773	405,050	58,695	357,321	<b>873,514</b>	<b>355,192</b>
<i>of which for sludges and waste disposal</i>	0	11,868	0	9,414	249,344	15,247
Reduction of losses (following reduction of withdrawal)	1,470,977	47,792	935,764	42,979	<b>1,290,911</b>	<b>3,003</b>
<b>Total</b>	<b>30,281,602</b>	<b>26,402,449</b>	<b>26,119,524</b>	<b>23,046,969</b>	<b>30,732,970</b>	<b>39,141,625</b>

## ACQUEDOTTO DEL FIORA

Since 01/01/2002, Acquedotto del Fiora SpA manages the integrated water system for the largest Optimum Area of Operations in Tuscany: ATO 6 – Ombrone. The ATO consists of 56 municipalities, covering an area of over 7,600 km<sup>2</sup>. The resident population is around 407.000

inhabitants, however including the summer transient population this figure almost doubles. The territory served is rich in **protected areas with high biodiversity**. Particularly notable among these are the Natural Park of Maremma and the Monte Labro Natural Park. The activities for management of water services

concern both the networks (aqueduct, sewerage) and their relative plants (water purification, wastewater treatment, desalination, etc.) of the 28 municipalities of the Province of Grosseto and 28 (out of a total 36) municipalities of the Province of Siena.

### WATER SYSTEM MANAGED BY ACQUEDOTTO DEL FIORA SPA

	2013	2014
Aqueducts: intake and distribution networks (km)	8,384	<b>8,421</b>
Well intake structures (no.)	230	<b>229</b>
Spring intake structures (no.)	286	<b>292</b>
River intake structures (no.)	1	<b>1</b>
Lake intake structures (no.)	6	<b>6</b>
Pumping stations (no.)	272	<b>288</b>
Piezometers (no.)	13	<b>13</b>
Reservoirs (no.)	698	<b>787</b>
Treatment plants (no.)	38	<b>40</b>
Seawater desalination plants (no.)	3	<b>3</b>

### WASTEWATER TREATMENT AND SEWERAGE PLANTS MANAGED BY ACQUEDOTTO DEL FIORA SPA

	2013	2014
Wastewater treatment plants (no.)	128	<b>132</b>
Sewer pumping stations (no.)	255	<b>254</b>
Sewer networks (km)	3,262	<b>3,209</b>

## CERTIFICATIONS

In 2014, Acquedotto del Fiora maintained certification **UNI EN ISO 9001:2008** for "Planning direction and testing of works for integrated water services".

Some of the data for the environmental reporting for the years 2012 and 2013 have been corrected in view of minor changes in data recorded after the close of accounting for 2013.

## ACQUEDOTTO DEL FIORA SPA ENVIRONMENTAL ACCOUNTS

PRODUCTS AND ANALYTICAL TESTS	Unit measure	2012	2013	2014	Δ% 2014/2013
<b>Drinking water</b>					
Drinking water from sources	Mm <sup>3</sup>	65.46	65.90	<b>65.60(*)</b>	-0.4
<i>from lakes/rivers</i>	Mm <sup>3</sup>	1.00	1.28	<i>nd</i>	-
<i>from wells</i>	Mm <sup>3</sup>	26.12	21.74	<i>nd</i>	-
<i>from springs</i>	Mm <sup>3</sup>	38.34	42.88	<i>nd</i>	-
Drinking water input to network	Mm <sup>3</sup>	60.76	61.33	<b>61.05(*)</b>	-0.5
Total drinking water supplied	Mm <sup>3</sup>	31.40	32.01	<b>32.01(*)</b>	-
<b>Evaluation of losses according to Italian Ministerial Decree No. 99/97, and since 2014 in conformity with AEEGSI Resolution No. 5/2014</b>					
Overall losses (Measure A17 MD 99/97)	Mm <sup>3</sup>	28.61	28.41	<b>nd</b>	-
Real losses (Measure A15 MD 99/97)	Mm <sup>3</sup>	23.90	25.20	<b>nd</b>	-
<b>Waste water treated</b>					
Water treated in the main treatment stations (Mm <sup>3</sup> )	Mm <sup>3</sup>	16.3	16.75	<b>17.15</b>	2.4
Water treated in plants with potential greater than 2,000 PE	Mm <sup>3</sup>	25.0	26.2	<b>26.3</b>	0.4
<b>Analytical tests of drinking water and waste water</b>					
Analytical tests of drinking water	n.	87,079	90,472	<b>113,502</b>	25.5
Analytical tests of waste water	n.	48,259	48,774	<b>50,497</b>	3.5
Analytical tests of surface water	n.	974	590	<b>1,257</b>	113.1

**Note:** The data for the three years reported were recalculated according to the criteria indicated under AEEGSI Resolution No. 5/2014 (Attachment 2).

(\*) For 2014, the final calculations of measures included under "Drinking water input to network" and "supplied" have not yet been completed: the figures reported are estimated.

RESOURCES USED	Unit measure	2012	2013	2014	Δ% 2014/2013
<b>Capture, input and distribution of potable and non-potable water</b>					
<b>Materials</b>					
Sodium hypochlorite	t	349.5	582.02	450	-22.6
Aluminium polychlorides	t	9.3	12.0	16	+33
Hydrochloric acid	t	14.06	13.3	10	-24.8
Powdered charcoal	t	43.9	17.5	0	-
Other (carbon dioxide; calcium carbonate, magnesium carbonate, potassium permanganate)	t	88	86.4	0	-
<b>Electrical energy</b>					
Electrical energy for water pumping stations	GWh	38.6	33.4	28.8	-13.7
<b>Wastewater treatment</b>					
<b>Materials</b>					
Polyelectrolytes	t	187.9	178.3	nd	-
Sodium hypochlorite for final disinfection	t	413.4	208.9	250	+19.6
Ferric chloride for dehydration of sludges	t	7.8	2.6	0	-
Aluminium polychloride 18%	t	54.5	62.5	80	+28
Antifoaming agent	t	1.1	0	0	-
Mineral oil and grease	t	0	0	0	-
Other	t	46.2	46.3	0	-
<b>Electrical energy for waste water</b>					
<b>Total Electrical energy for waste water</b>	<b>GWh</b>	<b>22,3</b>	<b>23,7</b>	<b>23,5</b>	<b>-0,8</b>
<i>electrical energy for treatment</i>	<i>GWh</i>	<i>18.8</i>	<i>20</i>	<i>19.8</i>	<i>-1.0</i>
<i>electrical energy per pumping plants</i>	<i>GWh</i>	<i>3.5</i>	<i>3.7</i>	<i>3.7</i>	<i>0.0</i>
<b>Water</b>					
Water consumed for civil uses	m <sup>3</sup>	nd	nd	nd	-

WASTES	Unit measure	2012	2013	2014	Δ% 2014/2013
<b>Wastes specific to wastewater treatment</b>					
Treatment sludges	t	15,406	14,386	14,619	1.6
Sand and sediments from treatment	t	527	652	920	41.1
<b>Wastes (as per Leg. Dec. No. 152/06) excluding sludges and sands</b>					
Hazardous wastes	t	44.00	15.47	82.39	432.6
Non-hazardous wastes	t	578.8	512.93	632.197	23.3

#### TOTAL INPUT AND OUTPUT COD (COD IN TONNES/YEAR)

COD<sub>out</sub> = 678 t/yr  
 COD<sub>in</sub> = 6.636 t/yr

#### OUTPUT PARAMETERS FOR THE MAIN WASTEWATER TREATMENT PLANTS MANAGED BY ACQUEDOTTO DEL FIORA SPA (\*)

Parameter	average value (mg/l) 2012	average value (mg/l) 2013	average value (mg/l) 2014
<b>BOD<sub>5</sub></b>	10.3	10.4	<b>10.7</b>
<b>COD</b>	43.0	37.6	<b>39.5</b>
<b>SST</b>	16.0	13.0	<b>14.4</b>
<b>Ammonium NH<sub>4</sub><sup>+</sup></b>	7.9	7.8	<b>6.0</b>
<b>Phosphorous</b>	1.9	2.0	<b>2.0</b>

(\*) Plants with potential >20,000 PE.

## TREATMENT EFFICIENCY OF THE MAIN WASTEWATER TREATMENT PLANTS MANAGED BY ACQUEDOTTO DEL FIORA SPA (\*)

Parameter	average value (%) 2012	average value (%) 2013	average value (%) 2014
$100 \times (\text{COD}_{in} - \text{COD}_{out}) / \text{COD}_{in}$	90.9	90.4	<b>89.8</b>
$100 \times (\text{SST}_{in} - \text{SST}_{out}) / \text{SST}_{in}$	92.1	91.5	<b>92.5</b>
$100 \times (\text{NH}_4^+_{in} - \text{NH}_4^+_{out}) / \text{NH}_4^+_{in}$	82.3	80.1	<b>79.2</b>
$100 \times (\text{PO}_4^{3-}_{in} - \text{PO}_4^{3-}_{out}) / \text{PO}_4^{3-}_{in}$	63.1	50.2	<b>50.6</b>

(\*) Plants with potential >20,000 PE.

## ENVIRONMENTAL EXPENDITURES

In 2014, the environmental expenditures by Acquedotto del Fiora amounted to a total of around **Euro 4.5 million**, between investments and operations, divided as reported below.

### ENVIRONMENTAL EXPENDITURES 2012 - 2014 (EURO)

Description (2001/453/Ce)	Investments 2012	Operations 2012	Investments 2013	Operations 2013	Investments 2014	Operations 2014
Laboratory	0	0	0	0	<b>0</b>	<b>107,496(*)</b>
Water plants	927,000	0	1,111,398	0	<b>923,953</b>	<b>0</b>
Wastewater treatment plants	91,400	0	0	0	<b>0</b>	<b>0</b>
TLC (telecommunication) plants	814,000	0	492,063	72,379	<b>872,253</b>	<b>67,069</b>
Other (transport of liquid sludges, centrifuge rental)	0	2,230,000	0	468,000	<b>0</b>	<b>667,000</b>
Disposal of process waste	0	0	0	1,900,000	<b>0</b>	<b>1,870,000</b>
<b>Total</b>	<b>1,832,400</b>	<b>2,230,000</b>	<b>1,603,461</b>	<b>2,440,378</b>	<b>1,796,206</b>	<b>2,711,565</b>

(\*) Estimated data

## ACQUE

Acque SpA is a share company in which the public partners, which together hold 55% of the capital, are expressions of the municipalities in the territory served, and where Acea participates via the company ABAB SpA.

Since 2002, Acque SpA and its subsidiaries and affiliated companies manage the integrated water service in the 57 municipalities belonging to the provinces of Florence, Lucca, Pisa, Pistoia, and Siena, corresponding to "Territorial Conference 2 - Basso Valdarno". The company serves a basin

of approximately 323,000 consumers, out of a population of 782,000 inhabitants. The subsidiaries of Acque SpA are: Acque Industriali Srl (100%); Acque Servizi Srl (100%); LeSoluzioni Scarl (59.55%).

### WATER SYSTEM MANAGED BY ACQUE SPA

	2013	2014
Aqueducts and feed-in networks (km)	802	<b>808</b>
Distribution network(km)	5,090	<b>5,145</b>
Well intake structures (no.)	438	<b>434</b>
Spring intake structures (no.)	274	<b>274</b>

**Note:** The definitive 2014 data will be available as of July 2014.

### WASTEWATER TREATMENT AND SEWERAGE PLANTS MANAGED BY ACQUE SPA

	2013	2014
Wastewater treatment plants (no.)	140	<b>139</b>
Sewer pumping stations (no.)	515	<b>515</b>
Sewer networks (km)	3,604	<b>3,604</b>

**Note:** The definitive 2014 data will be available as of July 2014.

Some of the data for the environmental reporting concerning 2012 and 2013 have been corrected in view of minor additional data arriving after the closure of accounting for 2013.

## ACQUE SPA ENVIRONMENTAL ACCOUNTS

PRODUCTS AND ANALYTICAL TESTS	Unit measure	2012	2013	2014	Δ% 2014/2013
<b>Drinking water</b>					
<b>Drinking water from sources and other systems</b>	Mm <sup>3</sup>	<b>74.55</b>	<b>72.89</b>	<b>71.97</b>	<b>-1.3</b>
Drinking water from sources	Mm <sup>3</sup>	3.63	3.282	<b>3.12</b>	-4.9
<i>from wells</i>	Mm <sup>3</sup>	65.53	60.906	62.56	2.7
<i>from springs</i>	Mm <sup>3</sup>	5.39	8.698	6.28	-27.8
Water from other aqueduct systems	Mm <sup>3</sup>	6.09	6.00	<b>6.38</b>	6.3
Drinking water input to network	Mm <sup>3</sup>	80.63	78.89	<b>78.35</b>	-0.7
Total drinking water supplied	Mm <sup>3</sup>	45.10	43.79	<b>45.10</b>	3.0
Supply to networks of external systems	Mm <sup>3</sup>	1.154	0.958	<b>0.99</b>	3.3
Losses of production between capture and intake to the network	Mm <sup>3</sup>	5.317	5.161	<b>5.583</b>	8.2
<b>Total input to company networks</b>	Mm <sup>3</sup>	<b>74.160</b>	<b>72.767</b>	<b>71.78</b>	<b>-1.4</b>
<b>Evaluation of losses according to Italian Ministerial Decree No. 99/97, and since 2014 in conformity with AEEGSI Resolution No. 5/2014</b>					
Overall losses (Measure A17)	Mm <sup>3</sup>	26.84	26.80	<b>26.29</b>	-1.9
Real losses (Measure A15 MD 99/97)	Mm <sup>3</sup>	17.94	18.07	<b>17.32</b>	-4.2
<b>Waste water treated</b>					
Water treated in the main treatment stations	Mm <sup>3</sup>	47.00	51.95	<b>52.90</b>	1.8
<b>Analytical tests of drinking water and waste water</b>					
No. of analytical tests of drinking water	n.	330,569	355,380	<b>325,060</b>	-8.5
No. of analytical tests of waste water	n.	125,546	117,827	<b>114,385</b>	-2.9

**Note:** The data reported for the three years under examination have been recalculated according to the criteria of AEEGSI Resolution No. 5/2014 (Attachment 2).

RESOURCES USED	Unit measure	2012	2013	2014	Δ% 2014/2013
<b>Capture, input and distribution of potable and non-potable water</b>					
Sodium hypochlorite	t	609.33	201.17	<b>200.83</b>	-0.2
Sodium chlorite	t	168.46	171.44	<b>243.17</b>	41.8
Hydrochloric acid	t	7.75	161.70	<b>303.38</b>	87.6
<b>Electrical energy (*)</b>					
Electrical energy for water pumping stations	GWh	56.7	52.9	<b>51.2</b>	-3.2
<b>Wastewater treatment</b>					
<b>Materials</b>					
Polyelectrolytes in powder	t	18.15	14.13	<b>2.5</b>	-82.3
Polyelectrolytes in emulsion	t	107.26	80.11	<b>63.83</b>	-20.3
Sodium hypochlorite	t	2.60	5.00	<b>12.00</b>	140.0
Ferric chloride per dehydration of sludges (40%)	t	275.93	448.84	<b>532.14</b>	18.6
Citric acid	t	0.60	3.00	<b>1.65</b>	-45.0
Peracetic acid	t	17.05	19.10	<b>3.00</b>	-84.3
Soda	t	0.0	0.0	<b>20.10</b>	-
Antifoaming agent	t	0.10	0.00	<b>0.00</b>	-
Aluminium polychloride (PAC)	t	64.00	67.75	<b>36.80</b>	-45.7
Biological reagents	t	0.00	0.51	<b>0.18</b>	-64.7
<b>Electrical energy for waste water (*)</b>					
<b>Total Electrical energy for waste water</b>	<b>GWh</b>	<b>32.6</b>	<b>33.50</b>	<b>32.96</b>	<b>-1.6</b>
electrical energy for treatment	GWh	n.a.	n.a.	26.46	n.a.
electrical energy for pumping stations	GWh	n.a.	n.a.	6.50	n.a.
<b>Other consumption</b>					
water consumed for civil uses	m <sup>3</sup>	n.a.	n.a.	<b>n.a.</b>	-

(\*) The data concerning consumption of electrical energy have been calculated on the basis of the plant history.

WASTES	Unit measure	2012	2013	2014	Δ% 2014/2013
<b>Wastes specific to wastewater treatment</b>					
Treatment sludges	t	60,505.9	66,777.69	<b>61,984.500</b>	-7.2
Sand and sediments from treatment	t	2,887.36	2,710.76	<b>2,664.280</b>	-1.7
<b>Wastes (as per Leg. Dec. No. 152/06), excluding sludges and sands</b>					
Hazardous wastes	t	7.07	13.26	<b>14.89</b>	12.3
Non-hazardous wastes	t	2,122.84	2,725.42	<b>2,628.50</b>	-3.6

#### TOTAL INPUT AND OUTPUT COD (COD IN TONNES/YEAR)

COD<sub>out</sub> = 2.209 t/yr  
 COD<sub>in</sub> = 19.984 t/yr

#### OUTPUT PARAMETERS FOR THE MAIN WASTEWATER TREATMENT PLANTS MANAGED BY ACQUE SPA

Parameter	average value (mg/l) 2012	average value (mg/l) 2013	average value (mg/l) 2014
<b>BOD<sub>5</sub></b>	15.4	10.5	<b>6.5</b>
<b>COD</b>	55.9	48.7	<b>41.1</b>
<b>SST</b>	29.7	18.2	<b>11.4</b>
<b>Ammonium NH<sub>4</sub><sup>+</sup></b>	10.8	6.3	<b>5.7</b>
<b>Phosphorous</b>	2.6	1.9	<b>2.1</b>

(\*) Plants with potential ≥ 10,000 PE.

#### TREATMENT EFFICIENCY IN THE MAIN WASTEWATER TREATMENT PLANTS MANAGED BY ACQUE SPA

Parameter	average value (%) 2012	average value (%) 2013	average value (%) 2014
$100 \times (\text{COD}_{in} - \text{COD}_{out}) / \text{COD}_{in}$	87.8	87.9	<b>86.8</b>
$100 \times (\text{SST}_{in} - \text{SST}_{out}) / \text{SST}_{in}$	87.2	90.2	<b>91.4</b>
$100 \times (\text{NH}_4^+_{in} - \text{NH}_4^+_{out}) / \text{NH}_4^+_{in}$	79.0	82.6	<b>83.3</b>
$100 \times (\text{PO}_4^{3-}_{in} - \text{PO}_4^{3-}_{out}) / \text{PO}_4^{3-}_{in}$	61.3	64.6	<b>61.1</b>

(\*) Plants with potential ≥ 10,000 PE.

#### ENVIRONMENTAL EXPENDITURES

In 2014, the environmental expenditures by Acque amounted to a total of around **Euro 7.6 million**, divided as reported below.

#### ENVIRONMENTAL EXPENDITURES 2012 - 2014 (EURO)

Description (2001/453/Ce)	Investments 2012	Operations 2012	Investments 2013	Operations 2013	Investments 2014	Operations 2014
Wastewater treatment activity	0	0	2,170,000	0	1,407,000	0
Waste management and sludge disposal	0	3,383,000	0	3,613,000	0	3,750,000
Transport of wastes and sludges	0	620,000	0	847,000	0	832,000
Improved energy efficiency	0	0	40,000	0	110,000	0
Other	0	0	40,000	0	1,549,000	0
<b>Total</b>	<b>0</b>	<b>4,003,000</b>	<b>2,250,000</b>	<b>4,459,000</b>	<b>3,066,000</b>	<b>4,582,000</b>

# GRI TABLE OF CONTENTS: STANDARD ELEMENTS AND PERFORMANCE INDICATORS

The following is a list of the **standard elements** and core and additional indicators of **economic, social and environmental performance** under the **GRI-G3.1 Guidelines, 2011 edition**,<sup>111</sup> as well as the added indicators under the Electric Utilities Sector Supplement,<sup>112</sup> with indication of the report sections and pages where the relevant accounting is found.

The *GRI Guidelines* explain the meaning of each standard element and indicator of performance, while the *Sector Supplement* defines the contents of the further indicators. Both of these documents are available on the website [www.globalreporting.org](http://www.globalreporting.org).

## STANDARD GRI-G3.1 ELEMENTS

### 1. STRATEGY AND ANALYSIS

**1.1 Statement from the most senior decision-maker of the organization (e.g., CEO, chairman, or equivalent senior position) about the relevance of sustainability to the organization and its strategy.**  
*Introductory letter pages 4-5, Corporate Identity pages 26 et seq.*

**1.2 Description of key impacts, risks, and opportunities.**  
*Introductory letter pages 4-5, Corporate Identity pages 18, 22-27, 30-35*

### 2. PROFILE OF THE ORGANIZATION

**2.1 Name of the organization.**  
*Corporate Identity page 16*

**2.2 Primary brands, products, and/or services.**  
*Corporate Identity pages 16 et seq.*

**2.3 Operational structure of the organization, including main divisions, operating companies, subsidiaries, and joint ventures.**  
*Corporate Identity pages 19-21*

**2.4 Location of organization's headquarters.**  
*Acea SpA, Piazzale Ostiense 2, 00154 Rome*

**2.5 Number of countries where the organization operates, and names of countries with either major operations or that are specifically relevant to the sustainability issues covered in the report.**  
*Corporate Identity pages 16, 22*

**2.6 Nature of ownership and legal form.**  
*Corporate Identity page 19*

**2.7 Markets served (including geographic breakdown, sectors served, and types of customers/beneficiaries).**  
*Corporate Identity pages 22 et seq.; Socio-economic relationships with the stakeholders pages 48 et seq.*

**2.8 Scale of the organization, including: number of employees; net turnover (for private organizations) or net revenues (for public bodies); total capitalization.**  
*Corporate Identity pages 18, 22; Socio-economic relationships with the stakeholders pages 92, 109*

**2.9 Significant changes to the dimensions, structure or ownership set-up which took place in the reporting period (including: the location or the changes in activities, the opening, closure or the expansion of the plants; changes in the share capital structure and other formation, maintenance and amendment of the share capital transactions).**  
*Corporate Identity pages 19, 20 et seq., 24 et seq., 36*

**2.10 Awards received in the reporting period.**  
*Corporate Identity pages 28, 38; Socio-economic relationships with the stakeholders pages 117, 120; Environmental issues page 124*

### 3. PARAMETERS OF THE REPORT

#### Profile of the report

**3.1 Reporting period (i.e., fiscal/calendar year) for information provided.**  
*Communicating sustainability: method notes page 6*

**3.2 Date of most recent previous report.**  
*Communicating sustainability: method notes page 6*

**3.3 Reporting cycle (annual, biennial, etc.).**  
*Communicating sustainability: method notes page 6*

**3.4 Contact point for questions regarding the report or its contents.**  
*Communicating sustainability: method notes page 9*

#### Purpose and boundary of the report

<sup>111</sup> For the elements of the Standards already included in the GRI-G3 (2006 edition) guidelines and maintained in the G3.1 edition (2011), the Italian version of the current reporting maintains the translation of the 2006 definitions. For the standards modified under the GRI-G3.1 Guidelines, the Italian translations were prepared from the new, 2011 version in English. In the actual preparation of the report, reference was made to the original version in English. Readers of the report in Italian version are also encouraged to refer to the original English version for more detailed explanations of their meaning.

<sup>112</sup> The indicators from the Electrical Utilities Sector Supplement are integrated in the table. These indicators discipline topics that are particular to energy companies, introduce new indicators (indicated EU), and some commentary on indicators already present in the 2006 edition of the GRI Guidelines.



<b>3.5</b>	<b>Process for defining report content, including determining materiality, prioritizing topics within the report; and identifying stakeholders the organization expects to use the report.</b> <i>Communicating sustainability: method notes pages 6-8</i>
<b>3.6</b>	<b>Boundary of the report (i.e., countries, divisions, subsidiaries, leased facilities, joint ventures, suppliers).</b> <i>Communicating sustainability: method notes pages 8-9</i>
<b>3.7</b>	<b>State any specific limitations on the scope or boundary of the report.</b> <i>Communicating sustainability: method notes pages 8-9; Socio-economic relationships with the stakeholders page 85, nota 76</i>
<b>3.8</b>	<b>Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities that can significantly affect comparability from period to period and/or between organizations.</b> <i>Communicating sustainability: method notes pages 8-9</i>
<b>3.9</b>	<b>Data measurement techniques and the bases of calculations, including assumptions and techniques underlying estimations applied to the compilation of the Indicators and other information in the report.</b> <i>Communicating sustainability: method notes page 9</i>
<b>3.10</b>	<b>Explanation of the effect of any re-statements of information provided in earlier reports, and the reasons for such re-statement (e.g., mergers/ acquisitions, change of base years/periods, nature of business, measurement methods).</b> The current report indicates and justifies all recalculations and aggregations that imply variations to what was published in the 2013 report. <i>Communicating sustainability: method notes pages 8-9; Corporate Identity pages 19, 22 et seq., 44; Socio-economic relationships with the stakeholders pages 48, 53, 75, 92, 97, 99, 115; Environmental accounts p. 184</i>
<b>3.11</b>	<b>Significant changes from previous reporting periods in the scope, boundary, or measurement methods applied in the report.</b> <i>Communicating sustainability: method notes pages 8-9; Corporate Identity pages 22 et seq., 44; Socio-economic relationships with the stakeholders pages 48, 92, 97, 99, 115; Environmental accounts p. 184</i>

## GRI TABLE OF CONTENTS

<b>3.12</b>	<b>Table identifying the location of the Standard Disclosures in the report. Identify the page numbers or web links where the following can be found: Strategy and Analysis 1.1 – 1.2; Organizational Profile 2.1 – 2.10; Report Parameters 3.1 – 3.13; Governance, Commitments, and Engagement 4.1 – 4.17; Disclosure of Management Approach, per category; Core Performance Indicators; any GRI Additional Indicators that were included; and any GRI Sector Supplement Indicators included in the report.</b> <i>Index of GRI contents: standard elements and performance indicators, page 168.</i>
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## Assurance

<b>3.13</b>	<b>Policy and current practice with regard to seeking external assurance for the report. If not included in the assurance report accompanying the sustainability report, explain the scope and basis of any external assurance provided. Also explain the relationship between the reporting organization and the assurance provider(s).</b> <i>Corporate Identity page 9</i>
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## 4. GOVERNANCE, COMMITMENTS, INVOLVEMENT OF THE STAKEHOLDERS

### Governance

<b>4.1</b>	<b>Governance structure of the organization, including committees under the highest governance body responsible for specific tasks, such as setting strategy or organizational oversight.</b> <i>Corporate Identity pages 36-39</i>
<b>4.2</b>	<b>Indicate whether the Chair of the highest governance body is also an executive officer (and, if so, their function within the organization's management and the reasons for this arrangement).</b> <i>Corporate Identity pages 38 et seq.</i>
<b>4.3</b>	<b>For organizations that have a unitary board structure, state the number and gender of members of the highest governance body that are independent and/or non-executive members.</b> <i>Corporate Identity page 38</i>
<b>4.4</b>	<b>Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body.</b> <i>Corporate Identity pages 37, 39; Socio-economic relationships with the stakeholders page 109</i>
<b>4.5</b>	<b>Linkage between compensation for members of the highest governance body, senior managers, and executives (including departure arrangements), and the organization's performance (including social and environmental performance).</b> <i>Corporate Identity pages 37 et seq.; Socio-economic relationships with the stakeholders pages 102 et seq.</i>
<b>4.6</b>	<b>Processes in place for the highest governance body to ensure conflicts of interest are avoided.</b> The risk of conflicts of interest within Acea is constantly controlled through corporate governance systems and procedures (management, organisational and control model, Code of Ethics, Transactions with Related Parties procedures, Independent Directors). These tools were applied in all the areas where cases of conflict of interests might rise: in relationships between major and minor shareholders, between Acea and related parties, between Acea and public administration. <i>Corporate Identity pages 37 et seq.</i>
<b>4.7</b>	<b>Process for determining the composition, qualifications, and expertise of the members of the highest governance body and its committees, including any consideration of gender and other indicators of diversity.</b> The presence of women in the control and administrative bodies is not motivated by the search for balance of genders, but is instead based on the evaluation of professional competencies relative to company needs. Concerning the determination and appointment of the Board of Directors, the Acea Articles of Association adhere to the provisions of applicable legislation. Furthermore, since 2012, Italian Law No. 120 of 12/07/2011, on matters of equal access to control and administrative bodies of companies quoted on regulated markets, provides for the statutory presence of women in the Boards of Directors of such companies, amounting to one-fifth of board composition, and one-third of composition by 2015. This law has been applied in Acea, and the gender shares are respected both in the Board of Directors, composed of seven members (four are women), and the Board of Statutory Auditors, composed of 3 members (one is a woman). <i>Corporate Identity pages 38, 40; Socio-economic relationships with the stakeholders page 98</i>

<b>4.8</b>	<b>Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental, and social performance and the status of their implementation.</b> <i>Corporate Identity</i> pages 26 et seq., 37 et seq.
<b>4.9</b>	<b>Procedures of the highest governance body for overseeing the organization's identification and management of economic, environmental, and social performance, including relevant risks and opportunities, and adherence or compliance with internationally agreed standards, codes of conduct, and principles.</b> <i>Corporate Identity</i> pages 37-39, 41
<b>4.10</b>	<b>Processes for evaluating the highest governance body's own performance, particularly with respect to economic, environmental, and social performance.</b> The Appointment and Remuneration Committee submits proposals on remuneration of the executive Directors, and on the setting of performance goals related to the variable component of said remuneration; it is also responsible for monitoring the application of decisions taken by the Board, verifying the effective achievement of the performance goals. Non-executive Directors receive fixed remuneration, determined by the Shareholders' Meeting, in keeping with the functions requested of them. Moreover, the Chairman is responsible for the verification of all company processes related to CSR (see <i>Report on Corporate Governance</i> and <i>Shareholders' Structure</i> ).

#### Commitment in external ventures

<b>4.11</b>	<b>Explanation of whether and how the precautionary approach or principle is addressed by the organization.</b> <i>Corporate Identity</i> page 42; <i>Environmental issues</i> page 149
<b>4.12 (*)</b>	<b>Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses.</b> <i>Communicating sustainability: method notes</i> page 6, <i>Corporate Identity</i> pages 37, 42; <i>Socio-economic relationships with the stakeholders</i> pages 84, 89, 99, 113 et seq., 116; <i>Environmental issues</i> page 124
<b>4.13</b>	<b>Memberships in associations (such as industry associations) and/or national/international advocacy organizations in which the organization has positions in governance bodies; participates in projects or committees; provides substantive funding beyond routine membership dues; or views membership as strategic.</b> <i>Socio-economic relationships with the stakeholders</i> pages 112, 114

#### Involvement of the stakeholders

<b>4.14</b>	<b>List of stakeholder groups engaged by the organization.</b> <i>Corporate Identity</i> pages 27 et seq., 43 et seq.
<b>4.15</b>	<b>Basis for identification and selection of stakeholders with whom to engage.</b> <i>Communicating sustainability: method notes</i> page 6; <i>Corporate Identity</i> page 43
<b>4.16</b>	<b>Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group.</b> <i>Corporate Identity</i> pages 43 et seq.; <i>Socio-economic relationships with the stakeholders</i> pages 49-55, 70, 73 et seq., 78, 80, 82, 89-91, 96 et seq., 104-107, 110-112
<b>4.17</b>	<b>Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting.</b> <i>Corporate Identity</i> pages 43 et seq.; <i>Socio-economic relationships with the stakeholders</i> pages 49-55, 73 et seq., 79, 90 et seq., 110-112, 115 et seq.

#### 5. MANAGEMENT APPROACH

<b>5.</b>	<b>Disclosure on the management methods of the organization (<i>Management Approach</i>) with reference to the aspects defined under each category of performance indicators.</b> <i>Corporate Identity</i> pages 16, 22 et seq., 26-28, 41 et seq.; <i>Socio-economic relationships with the stakeholders</i> pages 49, 73 et seq., 78, 83-85, 87, 92, 99, 101, 104, 107, 109, 112-115; <i>Environmental issues</i> pages 124, 125 et seq., 138, 141, 148 et seq., 152
<b>EU1</b>	<b>Installed capacity, broken down by primary energy source and by regulatory regime.</b> <i>Environmental issues</i> page 134
<b>EU2</b>	<b>Net energy output broken down by primary energy source and by regulatory regime.</b> <i>Environmental issues</i> page 129
<b>EU3</b>	<b>Number of residential, industrial, institutional and commercial customer accounts.</b> <i>Socio-economic relationships with the stakeholders</i> page 48
<b>EU4</b>	<b>Length of above and underground transmission and distribution lines by regulatory regime.</b> <i>Environmental issues</i> page 135
<b>EU5</b>	<b>Allocation of CO<sub>2</sub> emissions or equivalent, broken down by carbon trading framework.</b> <i>Environmental issues</i> page 150

(\*) For the standard element 4.12 internal translation of the original English version of the GRI-G3 Guidelines was preferred, as follows: "Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses".

**Economic performance**

- EC1 (Core)** **Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments.**  
*Corporate Identity* pages 22 et seq., 44; *Socio-economic relationships with the stakeholders* pages 101, 109, 112-115
- EC2 (Core)** **Financial implications and other risks and opportunities for the organization's activities due to climate change.**  
*Corporate Identity* pages 22; *Environmental issues* pages 124, 137 et seq.
- EC3 (Core)** **Coverage of the organization's defined benefit plan obligations.**  
*Socio-economic relationships with the stakeholders* pages 102 et seq.
- EC4 (Core)** **Significant financial assistance received from government.**  
*Corporate Identity* page 44 note 25

**Presence on the market**

- EC5 (Additional)** **Range of ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation.**  
 Range of ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation. The salaries of new recruits are disciplined by the Collective National Labour Agreements for the sector (electricity, gas and water).  
*Socio-economic relationships with the stakeholders* page 101
- EC6 (Core)** **Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation.**  
 A specific preferential strategy for locally based suppliers does not yet exist, although particularly for labour procurement, the prevalence of local suppliers occurs almost naturally.  
*Socio-economic relationships with the stakeholders* pages 86, 102
- EC7 (Core)** **Procedures for local hiring and proportion of senior management hired from the local community at significant locations of operation.**  
 Procedures for hiring of human resources in Acea do not require any particular criteria linked to geographical residence, since deemed potentially discriminatory and non-functional to the Group's logic.

**Indirect economic impacts**

- EC8 (Core)** **Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind, or pro bono engagement.**  
*Socio-economic relationships with the stakeholders* pages 57, 79, 80-82
- EC9 (Additional)** **Understanding and describing significant indirect economic impacts, including the extent of impacts.**  
*Socio-economic relationships with the stakeholders* pages 57, 65, 68 et seq., 74, 80-82, 84, 86

**Availability and reliability**

- EU6 (Core)** **Management approach to ensure short and long-term electricity availability and reliability.**  
 Acea Energia is equipped with the Energy Management Unit, which ensures provision of electricity (as well as gas and other fuels) for customers inside the Group, so that the balance and the optimisation of the energy portfolio, both material and financial, is guaranteed. This Unit continually controls the internal processes and the adequacy of its equipment (both in terms of operations and risk monitoring), also caring for commercial relations with the main domestic and international suppliers of electricity and gas, and with the principle financial institutions, in order to ensure the constant coverage of the energy requirements of Acea Energia – the company that sells electricity and gas to external and internal end users.  
*Socio-economic relationships with the stakeholders* pages 56, 72, 83, 85 note 76, 87, 112, 115; *Environmental issues* pages 136 et seq.
- EU10 (Core)** **Planned capacity against projected electricity demand over the long term, broken down by energy source and regulatory regime.**  
*Environmental issues* page 134

**Demand-side management**

- EU7 (Core)** **Demand-side management programs including residential, commercial, institutional and industrial programs.**  
*Socio-economic relationships with the stakeholders* pages 56, 72; *Environmental issues* pages 113 et seq.

**Research and development**

- EU8 (Core)** **Research and development activity and expenditure aimed at providing reliable electricity and promoting sustainable development.**  
*Socio-economic relationships with the stakeholders* pages 56 et seq., 115; *Environmental issues* pages 153 et seq.

**Plant decommissioning**

- EU9 (Core)** **Provisions for decommissioning of nuclear power sites.**  
 Acea does not own any nuclear-powered plants.

**System efficiency**

- EU11 (Core)** **Average generation efficiency of thermal plants by energy source and by regulatory regime.**  
*Environmental issues* pages 130 et seq.
- EU12 (Core)** **Transmission and distribution losses as a percentage of total energy.**  
*Environmental issues* page 136

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## LABOR PRACTICES & DECENT WORK

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### Employment

<b>LA1 (Core)</b>	<b>Total workforce by employment type, employment contract, and region, broken down by gender.</b> <i>Socio-economic relationships with the stakeholders pages 92-94, 96 et seq.</i>
<b>LA2 (Core)</b>	<b>Total number and rate of new employee hires and employee turnover by age group, gender, and region.</b> <i>Socio-economic relationships with the stakeholders pages 92-95</i>
<b>LA3 (Additional)</b>	<b>Benefits provided to full-time employees that are not provided to temporary or part-time employees, by major significant locations of operation.</b> <i>Socio-economic relationships with the stakeholders page 103</i>
<b>LA15 (Core)</b>	<b>Return to work and retention rates after parental leave, by gender.</b> Acea operates with respect to Italy's Consolidated Act on matters related to maternity and paternity protection and support (Legislative Decree 151/2001 and subsequent modifications and additions), that regulates parental leaves, time off and pay for workers concerned with maternity and paternity of natural, adopted and foster children. The legislation forbids any discriminatory actions for reasons related to gender, with particular attention to any less favourable treatment for reasons of pregnancy, maternity or paternity status; it sets the Statutory Maternity Leave for a period starting two months before the expected week of childbirth (antenatal care) and three months after the birth date, guaranteeing the reservation of their work position during this period and preventing their dismissal; it provides for the re-entry of employees to their original position or equivalent, assigning penalties in case of breach from the employers. Therefore, 100% of employees are eligible for such leaves and returns to position on re-entry to work. In 2014, <b>238 employees used parental leave</b> , of which 40 were men and 188 were women. Of these, all returned to work at the end of the period of leave.
<b>EU14 (Core)</b>	<b>Programs and processes to ensure the availability of a skilled workforce.</b> <i>Socio-economic relationships with the stakeholders pages 87-91, 104-106</i>
<b>EU15 (Core)</b>	<b>Percentage of employees eligible to retire in the next 5 and 10 years broken down by job category and by region.</b> With regard to the Group's companies operating in the electricity sector (Acea Distribuzione, Acea Reti e Servizi Energetici, Acea Energia and Acea Produzione, located chiefly in the region of Lazio) employees eligible to retire, <b>within the next 5 years</b> , amount to 2.54% of the total workforce of companies included in the reporting boundary of the section <i>Composition and turnover</i> , and divided as follows: 0% of executives, 0% of managers, 1.89% of white-collar workers and 0.4% of blue-collar workers. However, <b>within the next 10 years</b> , 22.19% of the workforce will be eligible to retire, divided in: 0.26% of executives, 1.5% of managers, 16.06% of white-collar workers and 4.37% of blue-collar workers.
<b>EU17 (Core)</b>	<b>Days worked by contractor and subcontractor employees involved in construction, operation &amp; maintenance activities.</b> In 2014, Acea Distribuzione had a workforce of 1,210 resources for a total of around 210,000 person-days; the company resorted to 66,000 person-days by personnel of contracted companies, for completion of works. Acea Produzione had a workforce of 78 resources for a total of around 140,000 person-days; the company resorted to 1,584 person-days from personnel of contracted companies for completion of works. In addition, in 2014, the company Acea Ato 2 (water sector) entrusted 20,116 interventions (for programmed repairs and repair of breakdowns) in the water network to contracted firms, out of a total of 59,000 interventions, and 15,809 interventions (for programmed repairs and repairs of breakdowns), against 20,500 total interventions.

### Industrial Relations

<b>LA4 (Core)</b>	<b>Percentage of employees covered by collective bargaining agreements.</b> 100% of Group employees are covered by collective bargaining agreements. With regard to the supply chain, the percentage of contractors' personnel covered by National Collective Labour Agreement is not available. However, all companies contracting services and works are compelled to subscribe to the Group Code of Ethics of the Group, where issues related to promotion and protection of freedom of association are specifically treated, including through establishment of adequate safeguards for industrial relations (Article 15.4). <i>Socio-economic relationships with the stakeholders pages 96 et seq.</i>
<b>LA5 (Core)</b>	<b>Minimum notice period(s) regarding significant operational changes, including whether it is specified in collective agreements.</b> <i>Socio-economic relationships with the stakeholders pages 96 et seq.</i>

### Occupational Health and Safety

<b>LA6 (Additional)</b>	<b>Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs.</b> Acea complies with the provisions of Italian Legislative Decree No. 81/2008 on matters of workplace health and safety. <i>Socio-economic relationships with the stakeholders pages 88, 100</i>
<b>LA7 (Core)</b>	<b>Rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities by region and by gender.</b> <i>Socio-economic relationships with the stakeholders pages 99 et seq.</i>
<b>LA8 (Core)</b>	<b>Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases.</b> <i>Socio-economic relationships with the stakeholders page 101</i>
<b>LA9 (Additional)</b>	<b>Health and safety topics covered in formal agreements with trade unions.</b> <i>Socio-economic relationships with the stakeholders page 100</i>

**EU16 (Core) Policies and requirements regarding health and safety of employees and employees of contractors and subcontractors.**  
 Company policies on the manner of provisioning obligate that contracted companies undersign the Group *Code of Ethics*, which adopts and supplements the principles of the previous Code of Ethics for Tenders, and requires respect for employee health and safety (Article 16.2). Furthermore, Acea has availed itself of specific tools such as the Quality, Environment, Safety and Energy Policy, which is a system of safety management consistent with OHSAS 18001, and the Memorandum on Water Tenders, in order to prevent irregular work and enhance safety on sites. Other than the worksite inspections carried out by Acea Distribuzione, since 2008, in 2014 Acea Ato 2 also began such inspections for the monitoring of safety. In addition, the Group also began activity for worksite verifications coordinated by the Safety and Protection Division of Acea SpA: the results of these verifications are considered in the rating of suppliers, and non-conformity is reported to suppliers with the request for corrective action, and where necessary with suspension of the worksite.  
 The Safety and Protection Division of Acea SpA, within the Vendor Rating project, also carries out periodic inspection visits to suppliers registered in the Qualification System for electrical workers and water-electro-mechanics. In 2014 there were 69 such inspections carried out, which had the following results **with regard to safety aspects**: 6% of operators were classed as “reliable”; 65% achieved “adequate”; 26% achieved “partially adequate”; and 3% were classed “critical”. Areas for improvement were notified to the suppliers following these inspections, which will be reviewed in the subsequent inspection visits.  
*Corporate Identity* pages 41 et seq.; *Socio-economic relationships with the stakeholders* pages 84, 88-91, 99

**EU18 (Core) Percentage of contractor and subcontractor employees that have undergone relevant health and safety training.**  
 Datum on percentage of contractors and subcontractors’ employees that have undergone relevant safety training is not available, since it is not yet monitored. However, in 2014, the Safety and Protection Function of Acea SpA undertook, within the Vendor Rating project, 69 audits on suppliers registered to the Systems for the Qualification for electric and water/electro-mechanical works. With regard to **safety training**, results from audits show: 30% of suppliers achieved a “good” result, 65% achieved “not bad” and 5% achieved a “sufficient” result.

**Training and Education**

**LA10 (Core) Average hours of training per year per employee by gender, and by employee category.**  
*Socio-economic relationships with the stakeholders* pages 105 et seq.

**LA11 (Additional) Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings.**  
*Socio-economic relationships with the stakeholders* pages 101, 104-106

**LA12 (Additional) Percentage of employees receiving regular performance and career development reviews, by gender.**  
 In 2014, in relation to the introduction of the Human Resources Management System and in continuity with the previous year, Group executives and managers have been subject to evaluation, corresponding to 10% of the overall workforce.  
*Socio-economic relationships with the stakeholders* pages 96, 103

**Diversity and Equal Opportunity**

**LA13 (Core) Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity.**  
*Socio-economic relationships with the stakeholders* pages 95, 97 et seq., 108

**Equal remuneration for women and men**

**LA14 (Core) Ratio of basic salary and remuneration women to men by employee category, by significant locations of operation.**  
 On the basis of the current National Collective Labour Agreement (CCNL), the base salaries for men and women are equal, within each category. However, the variable component of the salary can cause differences.  
*Socio-economic relationships with the stakeholders* page 102

**HUMAN RIGHTS**

**Investment and Procurement Practices**

**HR1 (Core) Percentage and total number of significant investment agreements and contracts that include clauses incorporating human rights concerns, or that have undergone human rights screening.**  
 All actors operating on behalf of Acea in the management of company activities are required to conform to the Group *Code of Ethics*. The *Code*, beginning with the Premises, makes explicit reference to the respect of the Universal Declaration of Human Rights, the ILO Conventions, and the 10 principles of the Global Compact. This guarantees adequate safeguard of human rights, including in the case of investment and/or supply agreements.  
*Socio-economic relationships with the stakeholders* pages 87 et seq.

**HR2 (Core) Percentage of significant suppliers, contractors and other business partners that have undergone human rights screening, and actions taken.**  
 Despite the lack of percentage data, Acea applies supplier Qualification Systems that impose the possession of specific prerequisites to participate in tenders, including requirements for *technical, environmental and safety reliability*, as well as the obligation to accept and respect the Group Code of Ethics, and to with national legislation on topics of occupational health, safety and hygiene, and on remuneration, pension and insurance contributions. The Qualification Systems are updated annually, with new verification of the suppliers’ possession of the necessary requisites. In case of violation of the principles of the *Code of Ethics* – which can also be reported to the Acea SpA Ethics Committee – following appropriate verification, the supplier shall be excluded from the tender or suspended from the contract.  
*Socio-economic relationships with the stakeholders* pages 83, 87-89

**HR3 (Core) Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained.**  
 In 2014, there were a total of 582 hours of training on topics related to human rights, involving 350 employees.  
*Socio-economic relationships with the stakeholders* page 105

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## Non-discrimination

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**HR4 (Core) Total number of incidents of discrimination and corrective actions taken.**

No incidents of discrimination have been reported or observed. For policies concerning prevention, meaning the Group *Code of Ethics* and the protection of diversity and equal opportunity.

see *Corporate Identity*, page 26 and *Socio-economic relationships with the stakeholders* pages 97 et seq., 108

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## Freedom of Association and Collective Bargaining

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**HR5 (Core) Operations and significant suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and actions taken to support these rights.**

There are no Group activities where the freedom of association and collective bargaining are placed at risk: see the report section *Human resources*, and in particular *Industrial relations* and *Social activities* (which also describe other forms of association present in the company - the Staff Recreational Association, ANMIC, the Gold Medal Association). Acea also participates in the Workgroup on the Sustainable Supply Chain, within the "Global Compact Network Italia." This Workgroup is engaged in defining mechanisms in support of sustainable performance in companies and encouraging the adoption of best practices by suppliers, in terms of respect of human and labour rights, environmental responsibility and business ethics (see *Corporate Identity* under *Sharing Corporate Social Responsibility Topics*).

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## Child Labor

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**HR6 (Core) Operations and significant suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor.**

Acea, in its relations with its employees and partners, applies the National Collective Labour Agreement and other contractual forms provided under current legislation. With regard to the lack of child labour in the supply chain, the company binds any potential supplier to respect the Group *Code of Ethics*, which ensures protection of workers from all forms of abuse (see *Human Resources* and *Suppliers* in *Socio-economic Relationships with the Stakeholders*). Acea also participates in the Workgroup on the Sustainable Supply Chain, within "Global Compact Network Italia." This Workgroup is engaged in defining mechanisms in support of sustainable performance in companies and encouraging the adoption of best practices by suppliers, in terms of respect of human and labour rights, environmental responsibility and business ethics (see *Sharing Corporate Social Responsibility Topics*).

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## Forced and Compulsory Labor

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**HR7 (Core) Operations and significant suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures taken to contribute to the elimination of all forms of forced or compulsory labor.**

Acea, in its relations with its employees and partners, applies the National Collective Labour Agreement and other contractual forms provided under current legislation. With regard to the lack of forced labour in the supply chain, the company binds any potential supplier to respect the Group *Code of Ethics*, which ensures protection of workers from all forms of abuse (see sections *Human Resources* and *Suppliers* in *Socio-economic Relationships with the Stakeholders*). Acea also participates in the Workgroup on the Sustainable Supply Chain, within "Global Compact Network Italia." This Workgroup is engaged in defining mechanisms in support of sustainable performance in companies and encouraging the adoption of best practices by suppliers, in terms of respect of human and labour rights, environmental responsibility and business ethics (see *Corporate Identity* under *Sharing Corporate Social Responsibility Topics*).

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## Security Practices

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**HR8 (Additional) Percentage of security personnel trained in the organization's policies or procedures concerning aspects of human rights that are relevant to operations.**

Security operations are assigned to an external security-services company. The rules for behaviour of security personnel comply with those for security forces within the Italian state.

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## Indigenous Rights

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**HR9 (Additional) Total number of incidents of violations involving rights of indigenous people and actions taken.**

No incidents of violation of the rights of indigenous or local peoples have been recorded. For the actions taken by Acea to benefit local communities, refer to the initiatives in support of the less-advantaged population, described in *Socio-economic Relationships with the Stakeholders* under *Customers and Community* and *Operations Abroad*.

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## Assessment

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**HR10 (Core) Percentage and total number of operations that have been subject to human rights reviews and/or impact assessments.**

The Group *Code of Ethics*, which orients all Group activities, explicitly imposes the respect of human rights. There has thus been no review of any specific activities.

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## Remediation

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**HR11 (Core) Number of grievances related to human rights filed, addressed and resolved through formal grievance mechanisms.**

No grievances or complaints regarding human rights have been filed. The adoption of the Group *Code of Ethics* Group guarantees the adequate safeguard of human rights. The business partners of the company are also bound to adhere to the Code of Ethics, at penalty of exclusion from procedures.

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## SOCIETY

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### Local Communities

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**S01 (Core) Percentage of operations with implemented local community engagement, impact assessments, and development programs.**

*Corporate Identity* pages 41-44; *Socio-economic relationships with the stakeholders* pages 49-55, 70, 78-82, 83-85, 88, 116

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**S09 (Core) Operations with significant potential or actual negative impacts on local communities.**

*Socio-economic relationships with the stakeholders* pages 55, 65, 68 et seq., 80-82

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<b>S010 (Core)</b>	<b>Prevention and mitigation measures implemented in operations with significant potential or actual negative impacts on local communities.</b> With regard to projects having a significant environmental impact, due to their nature, size or location, the competent authorities conduct an environmental impact assessment (EIA) before releasing the relevant authorisation. This assessment estimates relevant short and long-term, direct and indirect effects, which the execution of the activity may have on the ecosystem (human beings, fauna, flora, soil, water and air; the interactions of these parts; tangible property and cultural heritage). Furthermore, concerning the realisation of power distribution networks and public lighting installations, Acea operates in compliance with existing provisions and related regulations on energy saving and reduction in light pollution. <i>Socio-economic relationships with the stakeholders page 115</i>
<b>EU19 (Core)</b>	<b>Stakeholder participation in the decision making process related to energy planning and infrastructure development.</b> <i>Socio-economic relationships with the stakeholders page 115</i>
<b>EU20 (Core)</b>	<b>Approach to managing the impacts of displacement.</b> <i>Socio-economic relationships with the stakeholders page 115</i>
<b>EU21 (Core)</b>	<b>Contingency planning measures, disaster/emergency management plan and training programs and recovery/restoration plans.</b> <i>Socio-economic relationships with the stakeholders pages 112 et seq.</i>
<b>EU22 (Core)</b>	<b>Number of people physically or economically displaced and compensation, broken down by type of project.</b> No episodes in regard to this indicator have occurred.
<b>Corruption</b>	
<b>S02 (Core)</b>	<b>Percentage and total number of business units analyzed for risks related to corruption.</b> With respect to risks related to corruption, the Supervisory Boards of Acea SpA and its subsidiaries carry out continual activities for internal monitoring of potential offences under the provisions of Italian Legislative Decree 231/01. In 2014, the subsidiaries of the Group updated their organisational, management and control models in keeping with the cited Legislated Decree, in regards to new definitions of offences. <i>Corporate Identity page 40</i>
<b>S03 (Core)</b>	<b>Percentage of employees trained in organization's anti-corruption policies and procedures.</b> <i>Socio-economic relationships with the stakeholders page 105</i>
<b>S04 (Core)</b>	<b>Actions taken in response to incidents of corruption.</b> No episodes of corruption have occurred.
<b>Public Policy (approach towards politics and institutions)</b>	
<b>S05 (Core)</b>	<b>Public policy positions and participation in public policy development and lobbying.</b> <i>Socio-economic relationships with the stakeholders pages 112-115</i>
<b>S06 (Additional)</b>	<b>Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country.</b> <i>Socio-economic relationships with the stakeholders page 112</i>
<b>Anti-Competitive Behavior</b>	
<b>S07 (Additional)</b>	<b>Total number of legal actions for anticompetitive behavior, anti-trust, and monopoly practices and their outcomes.</b> <i>Socio-economic relationships with the stakeholders page 117</i>
<b>Compliance</b>	
<b>S08 (Core)</b>	<b>Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with laws and regulations.</b> <i>Socio-economic relationships with the stakeholders page 117</i>
<b>PRODUCT RESPONSIBILITY</b>	
<b>Customer Health and Safety</b>	
<b>PR1 (Core)</b>	<b>Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures.</b> <i>Corporate Identity pages 41 et seq.; Socio-economic relationships with the stakeholders pages 68, 71, 88-90, 116</i>
<b>EU25 (Core)</b>	<b>Number of injuries and fatalities to the public involving company assets, including legal judgments, settlements and pending legal cases of diseases.</b> In 2014, no episodes related to this indicator have been filed. There are still legal cases pending for two fatal accidents in previous years, involving the company and related to public lighting. These cases will be fully reported when the legal proceedings have come to a definitive end.
<b>PR2 (Additional)</b>	<b>Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services, by type of outcomes.</b> No cases of non-conformity have been recorded.
<b>Product and Service Labeling</b>	
<b>PR3 (Core)</b>	<b>Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements.</b> <i>Socio-economic relationships with the stakeholders pages 57-61, 68 e note 55, 71</i>
<b>PR4 (Additional)</b>	<b>Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes.</b> <i>Socio-economic relationships with the stakeholders pages 57-61, 64</i>
<b>PR5 (Additional)</b>	<b>Practices related to customer satisfaction, including results of surveys measuring customer satisfaction.</b> <i>Corporate Identity pages 43 et seq.; Socio-economic relationships with the stakeholders pages 49-55</i>

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## Marketing communication

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- PR6 (Core) Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship.**  
In 2014, the audits of processes for “Management of business complaints” and “Management of agents and solicitors (free energy market)” revealed critical situations in the effectiveness of internal controls, for which the companies involved have planned and undertaken specific actions of improvement.  
The reports of presumed violations of the Code of Ethics, submitted by customers, were appropriately handled for purposes of verifying repeated anomalies, and to permit the companies involved to undertake appropriate corrective action.  
Italian Legislative Decree 21/2014 has introduced new provisions in the matter of the rights and protection of consumers under the Consumer Code (Italian Legislative Decree 205/2006): in response, the parent company has constituted an inter-functional, inter-area Workgroup that supports the operating companies in the implementation of legislative compliance.  
*Socio-economic relationships with the stakeholders page 73*
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- PR7 (Additional) Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship, by type of outcomes.**  
*Socio-economic relationships with the stakeholders pages 90, 117*
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## Customer Privacy

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- PR8 (Additional) Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data.**  
No claims of violation of privacy were made.
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## Compliance

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- PR9 (Core) Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services.**  
*Socio-economic relationships with the stakeholders page 117*
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## Access

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- EU23 (Core) Programs, including those in partnership with government, to improve or maintain access to electricity and customer support services.**  
*Socio-economic relationships with the stakeholders page 72*
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- EU26 (Core) Percentage of population unserved in licensed distribution or service areas.**  
The distribution networks cover the entire service area in very thorough manner.
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- EU27 (Core) Number of residential disconnections for non-payment, broken down by duration of disconnection and by regulatory regime.**  
As governed by the Authority for Electricity, Gas and Water, the company can only access data on the reactivation of services following suspension for non-payment.  
*Socio-economic relationships with the stakeholders pages 58 et seq.*
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- EU28 (Core) Power outage frequency.**  
*Socio-economic relationships with the stakeholders page 61*
- 
- EU29 (Core) Average power outage duration.**  
*Socio-economic relationships with the stakeholders pages 61, 64*
- 
- EU30 (Core) Average plant availability factor by energy source and by regulatory regime.**  
*Environmental issues page 134*
- 

## Provision of Information

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- EU24 (Core) Practices to address language, cultural, low literacy and disability related barriers to accessing and safely using electricity and customer support services.**  
There are no specific company programmes concerning these issues.
- 

## GRI-G3.1 ENVIRONMENTAL PERFORMANCE INDICATORS (CORE & ADDITIONAL) AND SECTOR SUPPLEMENT INDICATORS (EU)

### Materials

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- EN1 (Core) Materials used by weight or volume.**  
With regard to PCBs, in accordance with the Italian Legislative Decree No. 209/99 and Law No. 62/05, Acea had already disposed of transformers with PCB levels exceeding 500 ppm, prior to 31/12/2009.  
In 2014 there were 234 transformers with PCB levels greater than 50ppm but less than the 500-ppm threshold, including 94 transformers for Public Lighting.  
*Environmental accounts pages 190-192*
- 
- EN2 (Core) Percentage of materials used that are recycle input materials.**  
The core indicator pertains to Acea’s business sectors only in part, since the company deals mainly with sales of energy, distribution of water and waste management. The Group has launched a policy of “green purchases”: this refers in particular to all calls for tenders for the assignment of works, but also for calls for the purchase of goods and services. In such cases, participation in the call requires possession of certification UNI EN ISO 9001, and for certain categories of goods, also requires certification UNI EN ISO 14001. In 2015, the Group will begin a course of internal training on Green procurement, for personnel operating in purchasing, focusing on criteria to apply for the identification of green products.  
*Socio-economic relationships with the stakeholders pages 84 et seq.*
-



<b>Energy</b>	
<b>EN3 (Core)</b>	<b>Direct energy consumption by primary energy source.</b> <i>Environmental issues</i> pages 146 et seq.
<b>EN4 (Core)</b>	<b>Indirect energy consumption by primary source.</b> <i>Environmental issues</i> pages 146 et seq.
<b>EN5 (Additional)</b>	<b>Energy saved due to conservation and efficiency improvements.</b> <i>Environmental issues</i> pages 135-137
<b>EN6 (Additional)</b>	<b>Initiatives to provide energy-efficient or renewable energy-based products and services, and reductions in energy requirements as a result of these initiatives.</b> <i>Environmental issues</i> pages 137 et seq.
<b>EN7 (Additional)</b>	<b>Initiatives to reduce indirect energy consumption and reductions achieved.</b> <i>Environmental issues</i> page 138
<b>Water</b>	
<b>EN8 (Core)</b>	<b>Total water withdrawal by source.</b> <i>Environmental issues</i> pages 147 et seq.
<b>EN9 (Additional)</b>	<b>Water sources significantly affected by withdrawal of water.</b> <i>Environmental issues</i> page 141
<b>EN10 (Additional)</b>	<b>Percentage and total volume of water recycled and reused.</b> <i>Environmental issues</i> pages 147 et seq.
<b>Biodiversity</b>	
<b>EN11 (Core)</b>	<b>Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.</b> <i>Environmental issues</i> pages 125, 142
<b>EN12 (Core)</b>	<b>Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas.</b> <i>Environmental issues</i> page 125
<b>EU13</b>	<b>Biodiversity of offset habitats compared to the biodiversity of the affected areas.</b> <i>Environmental issues</i> page 125
<b>EN13 (Additional)</b>	<b>Area of habitats protected or restored.</b> <i>Environmental issues</i> page 125
<b>EN14 (Additional)</b>	<b>Strategies, current actions, and future plans for managing impacts on biodiversity.</b> <i>Environmental issues</i>
<b>EN15 (Additional)</b>	<b>Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk (*).</b> At present this aspect is not monitored, since in the areas affected by the Group's operations there are no species included in the IUCN Red List. However, the Group operates in compliance with strict criteria of respect and safeguard for natural habitat, flora and fauna in the areas of its operations.
<b>Emissions, effluents, and waste</b>	
<b>EN16 (Core)</b>	<b>Total direct and indirect greenhouse gas emissions by weight (according to the WRI – Greenhouse gas Protocol).</b> <i>Environmental issues</i> pages 150 et seq.; <i>Environmental accounts</i> pages 193, 195
<b>EN17 (Core)</b>	<b>Other relevant indirect greenhouse gas emissions by weight.</b> There are no relevant emissions to report.
<b>EN18 (Additional)</b>	<b>Initiatives to reduce greenhouse gas emissions and reductions achieved.</b> <i>Environmental issues</i> pages 136, 137 et seq.
<b>EN19 (Core)</b>	<b>Emissions of ozone-depleting substances by weight.</b> <i>Environmental issues</i> page 151
<b>EN20 (Core)</b>	<b>NO, SO, and other significant air emissions by type and weight.</b> <i>Environmental issues</i> page 151; <i>Environmental accounts</i> pages 193, 195
<b>EN21 (Core)</b>	<b>Total water discharge by quality and destination.</b> The water used by Acea structures for “domestic/sanitary” purposes undergoes the same standards of wastewater treatment as applied for civil waste water. The environmental impact on the receptor bodies of water from the treated water is very limited.
<b>EN22 (Core)</b>	<b>Total weight of waste by type and disposal method.</b> <i>Environmental issues</i> page 152; more details can be found in the <i>Environmental accounts</i>
<b>EN23 (Core)</b>	<b>Total number and volume of significant spills.</b> In 2014, there were no significant spills of pollutants such as mineral oil, fuels or chemical products.
<b>EN24 (Additional)</b>	<b>Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, and percentage of transported waste shipped internationally.</b> In 2014, the Group shipped 2,463 tonnes of hazardous wastes (CER 190111) to Germany, for recovery, consisting of 8% of the heavy ash produced by the San Vittore del Lazio plant. <i>Environmental issues</i> pag 152
<b>EN25 (Additional)</b>	<b>Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the reporting organization's discharges of water and runoff.</b> There is no discharge of water that significantly affects habitats or biodiversity.

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## Products and services

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**EN26 (Core) Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation.**

Initiatives focus on reduction of atmospheric emissions due to thermoelectric generation and waste-to-energy, and the production of electrical energy from renewable sources. The environmental impacts are generally attributable to the services offered, such as: generation and distribution of electricity; cogeneration; management of integrated water services; waste management, including waste-to-energy; environmental behaviours of contractors and sub-contractors. The Group is committed to the impact mitigation in all situations.  
*Environmental issues* pages 128, 149-151

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**EN27 (Core) Percentage of products sold and their packaging materials that are reclaimed by category.**

Not applicable.

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## Compliance

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**EN28 (Core) Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with environmental laws and regulations.**

*Environmental issues* page 126

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## Transport

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**EN29 Significant environmental impacts of transporting products and other goods and materials used.**

**(Additional)** *Environmental issues* pages 146 et seq.

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## General

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**EN30 Total environmental protection expenditures and investments by type.**

**(Additional)** *Environmental issues* page 127

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(\* ) The International Union for the Conservation of Nature (IUCN) list mentioned under indicator EN15 concerns endangered species ([www.iucn.org](http://www.iucn.org)).

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# 2014

## ENVIRONMENTAL ACCOUNTS

Product systems

The products

The resources used

Emissions and waste

Key environmental performance indicators (KPI)

Explanatory notes

"I find your project truly innovative and interesting! What you write is true, the education of new generations is the only key to eradicate prejudice and hatred toward everything that seems different. The school has a fundamental role that I hope will be again recognized".

*Facebook User*

**"Luce. Diversità è Energia" (Light. Diversity is energy),** on the facades of the schools of Tor Sapienza, Torpignattara and Pigneto.  
Final Event at the Piazza del Popolo  
December 2014 - January 2015

# ENVIRONMENTAL ACCOUNTS

## BOUNDARIES

The 2014 boundaries include Acea SpA, Acea Distribuzione, Acea Reti e Servizi Energetici, Acea Produzione, Acea Energia, Local Unit 3 of San Vittore del Lazio and Local Unit 1 of Terni, both of A.R.I.A, the company SAO, controlled by A.R.I.A, Acquaser, LaboratoRI, Acea Ato 2, Acea Ato 5.


The water companies Acque, Gori, Acquedotto del Fiora, Publiacqua and Umbra Acque, participated by Acea, this year consolidated in the financial statements under the equity method – are included marginally in the environmental accounts and only for items that are precisely reported. Water balances of these companies can be found in chapter *Water company data sheets*.

The Environmental Accounts, an integral part of the Sustainability Report, bring together and systematically present the information and data on Acea Group’s environmental performance in an in-depth manner. Figures are separated into “product systems”

for the energy, environment and water sectors according to the Life Cycle Assessment approach (ISO standard 14040 series), which assesses the entire life cycle of the systems. Additional information is provided in the *Explanatory Notes* concerning the quality of the

figures presented herein, especially when such are measured, estimated or calculated, and the items of the Environmental Accounts (indicated in the tables and in the text by a number in brackets) are accompanied by a brief illustrative description.

## PRODUCT SYSTEMS



**ENERGY**

- ENERGY GENERATION (THERMOELECTRIC + HYDROELECTRIC + PHOTOVOLTAIC + WASTE TO ENERGY)
- ELECTRICITY DISTRIBUTION
- HEAT PRODUCTION AND DISTRIBUTION
- PUBLIC LIGHTING
- TESTS AND INSPECTIONS



**ENVIRONMENT**

- DISPOSED MSW (MUNICIPAL SOLID WASTE)
- COMPOST PRODUCTION
- ANALYSIS AND MEASUREMENTS



**WATER**

- DRINKING WATER SUPPLY
- NON-DRINKING WATER SUPPLY
- WATER DISTRIBUTION
- WASTE WATER TRANSPORTATION/TREATMENT
- ANALYSIS AND MEASUREMENTS

The figures are provided for the three-year period 2012-2014 and are grouped together in three similar categories:

- **the product supplied;**
- **the resources used;**
- **the waste produced.**

The performance indicators and the key environmental performance indicators are illustrated for each sector below.



# THE PRODUCTS - ENERGY

Electricity generation figures refer to Acea Produzione (AP) (100% Acea SpA), A.R.I.A (100% Acea SpA) and Acea Reti e Servizi Energetici (100% Acea SpA).

<b>ELECTRICITY - GENERATION</b>	<b>unit of measurement</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>Δ% 2014/2013</b>
<b>Summarized figures</b>					
<b>Total gross electricity produced (1) = (3+11+16)</b>	<b>GWh</b>	<b>651.77</b>	<b>785.69</b>	<b>807.93</b>	<b>2.8</b>
<b>Total net electricity produced (2) = (10+15+18)</b>	<b>GWh</b>	<b>604.60</b>	<b>735.50</b>	<b>756.13</b>	<b>2.8</b>
<i>From fossil sources (thermoelectric)</i> <i>(5 + 0.50x12<sub>San Vittore</sub> + 0.59x13<sub>Terni</sub>)</i>	<i>GWh</i>	<i>119.23</i> <i>18.3% of (1)</i>	<i>152.00</i> <i>19.3% of (1)</i>	<i>161.14</i> <i>19.9% of (1)</i>	<i>6.0</i>
<i>From renewable sources</i> <i>(hydroelectric, solar, biodegradable fraction of waste)</i> <i>(4+0.50x12<sub>San Vittore</sub> + 0.41x13<sub>Terni</sub> + 16)</i>	<i>GWh</i>	<i>532.54</i> <i>81.7% of (1)</i>	<i>633.69</i> <i>80.7% of (1)</i>	<i>646.79</i> <i>80.1% of (1)</i>	<i>2.1</i>
<b>Acea Produzione</b>					
<b>Total gross electricity produced (3) = (4+5)</b>	<b>GWh</b>	<b>373.10</b>	<b>508.28</b>	<b>505.43</b>	<b>-0.6</b>
<b>Total gross hydroelectric energy (4)</b>	<b>GWh</b>	<b>360.80</b>	<b>496.73</b>	<b>495.18</b>	<b>-0.3</b>
<i>A. Volta Castel Madama</i>	<i>GWh</i>	<i>15.55</i>	<i>30.38</i>	<i>27.37</i>	<i>-9.9</i>
<i>G. Ferraris Mandela</i>	<i>GWh</i>	<i>10.26</i>	<i>23.05</i>	<i>19.75</i>	<i>-14.3</i>
<i>G. Marconi Orte</i>	<i>GWh</i>	<i>48.07</i>	<i>80.91</i>	<i>75.25</i>	<i>-7.0</i>
<i>Sant'Angelo</i>	<i>GWh</i>	<i>108.77</i>	<i>179.15</i>	<i>188.30</i>	<i>5.1</i>
<i>Salisano</i>	<i>GWh</i>	<i>175.94</i>	<i>180.95</i>	<i>182.41</i>	<i>0.8</i>
<i>Other minor plants</i>	<i>GWh</i>	<i>2.21</i>	<i>2.29</i>	<i>2.11</i>	<i>-7.9</i>
<b>Total gross thermoelectric energy (5)</b>	<b>GWh</b>	<b>12.30</b>	<b>11.55</b>	<b>10.25</b>	<b>-11.3</b>
<i>From gas oil</i> <i>Montemartini Plant (*)</i>	<i>GWh</i>	<i>1.94</i>	<i>1.28</i>	<i>0.051</i>	<i>-96.1</i>
<i>From natural gas</i>	<i>GWh</i>	<i>10.35</i>	<i>10.27</i>	<i>10.20</i>	<i>-0.7</i>
<i>Tor di Valle combined cycle</i>	<i>GWh</i>	<i>1.09</i>	<i>0.00</i>	<i>0.00</i>	<i>-</i>
<i>Tor di Valle co-generation plant</i>	<i>GWh</i>	<i>9.26</i>	<i>10.27</i>	<i>10.20</i>	<i>-0.7</i>
<b>Total electricity losses (6) = (7+8+9)</b>	<b>GWh</b>	<b>13.29</b>	<b>14.22</b>	<b>12.98</b>	<b>-7.2</b>
<i>Internal consumption - hydroelectric plants (7)</i>	<i>GWh</i>	<i>2.49</i>	<i>2.54</i>	<i>2.43</i>	<i>-4.3</i>
<i>Internal consumption - heat plants (Tor di Valle, Montemartini) (8)</i>	<i>GWh</i>	<i>6.04</i>	<i>5.45</i>	<i>3.89</i>	<i>-28.6</i>
<i>Initial transformation losses (9)</i>	<i>GWh</i>	<i>4.76</i>	<i>6.22</i>	<i>6.66</i>	<i>7.1</i>
<b>Total net electricity produced by Acea Produzione (10) = (3-6)</b>	<b>GWh</b>	<b>359.80</b>	<b>494.06</b>	<b>492.45</b>	<b>-0.3</b>
<b>A.R.I.A. (waste-to-energy)</b>					
<b>Total gross energy produced (11) = (12)+(13)</b>	<b>GWh</b>	<b>21.24</b>	<b>260.09</b>	<b>287.04</b>	<b>10.4</b>
<i>San Vittore del Lazio plant (12)</i>	<i>GWh</i>	<i>218.24</i>	<i>202.23</i>	<i>205.09</i>	<i>1.4</i>
<i>Terni plant (13)</i>	<i>GWh</i>	<i>n.a.</i>	<i>57.86</i>	<i>81.95</i>	<i>41.6</i>
<b>Total electricity losses (14)</b>	<b>GWh</b>	<b>29.59</b>	<b>35.46</b>	<b>38.51</b>	<b>21.6</b>
<i>San Vittore del Lazio internal consumption</i>	<i>GWh</i>	<i>29.59</i>	<i>28.42</i>	<i>29.64</i>	<i>4.3</i>
<i>Terni internal consumption</i>	<i>GWh</i>	<i>n.a.</i>	<i>7.04</i>	<i>8.87</i>	<i>26.0</i>
<b>Total net electricity produced (15) = (11-14)</b>	<b>GWh</b>	<b>188.65</b>	<b>224.63</b>	<b>248.53</b>	<b>10.6</b>
<b>Acea Reti e Servizi Energetici</b>					
<b>Gross photovoltaic energy (16)</b>	<b>GWh</b>	<b>60.43</b>	<b>17.33</b>	<b>15.46</b>	<b>-10.8</b>
<b>Total electricity losses (17)</b>	<b>GWh</b>	<b>4.29</b>	<b>0.52</b>	<b>0.31</b>	<b>-40.4</b>
<b>Net photovoltaic energy (18) = (16-17)</b>	<b>GWh</b>	<b>56.14</b>	<b>16.81</b>	<b>15.15</b>	<b>-9.9</b>

(\*) The Montemartini plant remains operational but only as a standby.

< THERMAL ENERGY – GENERATION	unit of measurement	2012	2013	2014	Δ% 2014/2013
<b>Acea Produzione</b>					
<b>Gross thermal energy produced Tor di Valle plant (19)</b>	<b>GWh<sub>t</sub></b>	<b>87.96</b>	<b>99.33</b>	<b>92.03</b>	<b>-7.3</b>
Total thermal electricity losses (20)	GWh <sub>t</sub>	11.62	22.76	18.89	-17.0
<i>Distribution losses</i>	GWh <sub>t</sub>	9.35	19.69	16.65	-15.4
<i>Production losses</i>	GWh <sub>t</sub>	2.27	3.07	2.24	-27.0
<b>Net thermal energy sold (21) = (19-20)</b>	<b>GWh<sub>t</sub></b>	<b>76.34</b>	<b>76.57</b>	<b>73.13</b>	<b>-4.5</b>

ELECTRICITY – TRANSPORT AND SALE	unit of measurement	2012	2013	2014	Δ% 2014/2013
<b>to Rome and Formello - Summarized figures</b>					
Supply from Acea Group (22)	GWh	2.18	1.96	2.12	8.2
Electricity from the market (23)	GWh	11,861.09	11,383.35	10,951.49	-3.8
<i>From sole buyer</i>	GWh	3,327.25	3,107.76	2,852.89	-8.2
<i>From imports</i>	GWh	433.56	431.50	432.05	0.1
<i>From wholesalers + other producers</i>	GWh	8,100.28	7,844.09	7,666.55	-2.3
<b>Electricity demand on the network (24) = (22+23) = (25+26+27+28+29)</b>	<b>GWh</b>	<b>11,863.27</b>	<b>11,385.31</b>	<b>10,953.61</b>	<b>-3.8</b>
<i>Distribution, transport and commercial losses (25)</i>	GWh	757.12	701.72	673.59	-4.0
		6.38 % of (24)	6.16% of (24)	6.15% of (24)	
<i>Internal transmission and distribution (26)</i>	GWh	30.61	30.43	29.80	-2.1
<i>Net electricity sold to third parties (27)</i>	GWh	2.54	2.15	2.90	34.9
<b>Net electricity conveyed by Acea to free market customers (28)</b>	<b>GWh</b>	<b>7,636.13</b>	<b>7,416.84</b>	<b>7,247.27</b>	<b>-2.3</b>
<i>Net electricity sold by Acea Elettricità to free market customers on Acea Distribuzione network</i>	GWh	4,627.90	4,982.27	5,115.86	2.7
<i>Net electricity sold by Other Sellers to free market customers on Acea Distribuzione network</i>	GWh	3,008.23	2,434.57	2,131.42	-12.5
<b>Electricity sold to protected customers (29)</b>	<b>GWh</b>	<b>3,436.87</b>	<b>3,234.19</b>	<b>3,000.05</b>	<b>-7.2</b>
<b>Sale in Italy - Summarized figures</b>					
<b>Net electricity sold by Acea on the free market - including sale on Rome (30)</b>	<b>GWh</b>	<b>9,960</b>	<b>9,381.9</b>	<b>7,887.0</b>	<b>-15.9</b>
<i>Acea Elettricità</i>	GWh	9,050	8,600.6	7,343.6	-14.6
<i>Other investee companies</i>	GWh	910	781.3	543.4	-30.4
<b>Net electricity sold by Acea in Italy (free market + protected customers) (29+30)</b>	<b>GWh</b>	<b>13,396.9</b>	<b>12,616.1</b>	<b>10,887.0</b>	<b>-13.7</b>

PUBLIC LIGHTING	unit of measurement	2012	2013	2014	Δ% 2014/2013
Lighting flux in Rome (31)	Mlumen	3,148	3,275	3,377	3.1

MONITORING AND GAUGING	unit of measurement	2012	2013	2014	Δ% 2014/2013
<b>Monitoring and gauging activities (32)</b>	<b>No.</b>	<b>488</b>	<b>392</b>	<b>393</b>	<b>0.3</b>
<i>Electromagnetic field measures</i>	No.	42	40	30	-25.0
<i>Noise monitoring</i>	No.	39	12	5	-58.3
<i>Chemical analysis of PCB</i>	No.	151	55	102	85.5
<i>Waste classification</i>	No.	16	45	36	-20.0
<i>Transformer diagnostics</i>	No.	213	190	208	9.5
<i>Other</i>	No.	27	50	12	-76.0

# THE PRODUCTS - ENVIRONMENT

Data refer to the companies Kyklos, Solemme, and Samace (plant assimilated at the end of 2013) all in Aquaser Srl (100% Acea SpA) and to the company SAO srl, controlled by A.R.I.A. (100% Acea SpA).

It should be noted that, following a serious incident at the plant of Kyklos, from July 30<sup>th</sup> 2014 the latter was placed under sequestration, preventing further contributions (see chapter *Suppliers*).

<b>NON-HAZARDOUS WASTE, DISPOSED OF AND RECOVERED - SAO</b>	<b>unit of measurement</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>Δ% 2014/2013</b>
<b>Incoming waste to plant (33)</b>	<b>t</b>	<b>143,384</b>	<b>120,059</b>	<b>97,927</b>	<b>-18.4</b>
Landfilled waste (34)	t	122,770	99,953	89,338	-10.6
Recovered waste (35)	t	488	260	6,313	-
Compost (36)	t	658	439	658	49.9
Reduction for stabilisation (37) = (33-34-35-36)	t	19,468	19,407	1,618	-

<b>PRODUCTION OF COMPOST</b>	<b>unit of measurement</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>Δ% 2014/2013</b>
<b>Total incoming organic waste = (38+39+40)</b>	<b>t</b>	<b>59,510,75</b>	<b>63,271,43</b>	<b>55,769,37</b>	<b>-11,9</b>
Incoming sludges (38)	t	16,249.88	15,491.54	15,924.25	2.8
Kyklos	t	12,151.68	10,322.30	2,330.09	-77.4
Solemme	t	4,098.20	5,169.24	5,420.78	4.9
Samace	t	-	-	8,173.38	-
Incoming Green (39)	t	6,236.96	6,923.14	15,806.38	128.3
Kyklos	t	4,522.86	3,416.40	4,898.20	43.4
Solemme	t	1,714.10	3,506.74	2,660.88	-24.1
Samace	t	-	-	8,247.30	-
Incoming organic fraction from waste collection system (40)	t	37,023.91	40,856.75	24,038.74	-41.2
Kyklos	t	37,023,91	40,856,75	24,038,74	-41.2
<b>High Quality compost produced (41)</b>	<b>t</b>	<b>11,652.66</b>	<b>18,389.10</b>	<b>15,026.10</b>	<b>-18.3</b>
Kyklos	t	9,295.66	14,370.00	6,026.10	-58.1
Solemme	t	2,357.00	4,019.10	4,000.00	-0.5
Samace	t	-	-	5,000.00	-
<b>Non-compostable material to disposal (42)</b>	<b>t</b>	<b>3,784.88</b>	<b>4,671.95</b>	<b>4,361.16</b>	<b>-6.7</b>
Kyklos	t	3,784.88	4,671.95	4,361.16	-6.7
Solemme	t	0.00	0.00	0.00	-
<b>Reduction for stabilisation = (38+39+40-41-42)</b>	<b>t</b>	<b>44,073.21</b>	<b>40,210.38</b>	<b>36,382.11</b>	<b>-17.7</b>

<b>ANALYTICAL CONTROLS ON WASTE AND ON HIGH QUALITY COMPOST</b>	<b>unit of measurement</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>Δ% 2014/2013</b>
<b>Total analytical controls (43)</b>	<b>No.</b>	<b>100</b>	<b>110</b>	<b>90</b>	<b>-18.2</b>
Analytical controls on compost - SAO	No.	8	10	5	-50.0
Analytical controls on compost - Solemme and Kyklos	No.	42	50	25	-50.0
Analytical controls on waste - SAO	No.	50	50	60	20.0

# THE PRODUCTS - WATER

Summarized water figures include the main water companies in the Acea Group - Acea Ato 2 and Acea Ato 5 (Lazio Region), Gori (Campania Region), Umbra Acque (Umbria Region) Acque, Publiacqua and Acquedotto del Fiore (Tuscany).

Details of water balances are presented only for the operating companies in Lazio, the only companies that have been consolidated proportionally for 2014. You can read the data of the water balance of the Group companies consolidated differently in chapter Water Companies.

The **items of water balance** were calculated, **for 2014, according to the criteria provided by the AEEGSI (Resolution n. 5/2014)**. Such items are not comparable with the ones of previous years. Some data 2012 and 2013 have been adjusted to account for slight settling accounting closure occurring after 2013.

<b>GROUP WATER BALANCE IN ITALY</b>	<b>unit of measurement</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>Δ% 2014/2013</b>
<b>Summarized figures</b>					
<b>Total drinking water withdrawn from the environment or from other systems (44)</b>	<b>Mm<sup>3</sup></b>	<b>1,392.8</b>	<b>1,416.2</b>	<b>1,398.8</b>	<b>-1.2</b>
<b>Total drinking water introduced onto the network (45)</b>	<b>Mm<sup>3</sup></b>	<b>1,263.0</b>	<b>1,271.3</b>	<b>1,308.4</b>	<b>2.8</b>
<b>Total drinking water supplied (46)</b>	<b>Mm<sup>3</sup></b>	<b>653.7</b>	<b>642.7</b>	<b>656.8</b>	<b>2.2</b>
<b>WATER BALANCE OF THE COMPANIES OPERATING IN THE REGION OF LAZIO</b>					
<b>Acea Ato 2 for Rome historic network (*)</b>					
<b>Drinking water withdrawn from the environment (47)</b>	<b>Mm<sup>3</sup></b>	<b>609.8</b>	<b>618.5</b>	<b>611.5</b>	<b>-1.1</b>
<i>from Lake Bracciano, treated</i>	<i>Mm<sup>3</sup></i>	<i>21.9</i>	<i>7.3</i>	<i>19.8</i>	<i>171.2</i>
<i>from wells</i>	<i>Mm<sup>3</sup></i>	<i>27.2</i>	<i>16.9</i>	<i>18.8</i>	<i>11.2</i>
<i>from springs</i>	<i>Mm<sup>3</sup></i>	<i>560.7</i>	<i>594.3</i>	<i>572.9</i>	<i>-3.6</i>
<b>Drinking water sold to municipal retailers situated on the path of aqueducts (48)</b>	<b>Mm<sup>3</sup></b>	<b>92.4</b>	<b>96.1</b>	<b>80.0</b>	<b>-16.8</b>
<b>Drinking water introduced onto non-drinking water network (49)</b>	<b>Mm<sup>3</sup></b>	<b>16.1</b>	<b>15.9</b>	<b>14.6</b>	<b>-8.2</b>
<b>Drinking water returned to the environment /technical operating volumes (50)</b>	<b>Mm<sup>3</sup></b>	<b>28.5</b>	<b>33.4</b>	<b>34.2</b>	<b>2.4</b>
<b>Drinking water introduced onto the Rome historic network (51) = (47) - (48+49+50)</b>	<b>Mm<sup>3</sup></b>	<b>472.7</b>	<b>473.1</b>	<b>482.9</b>	<b>2.1</b>
<b>Drinking water supplied via the Rome historic network (52)</b>	<b>Mm<sup>3</sup></b>	<b>298.0</b>	<b>295.0</b>	<b>266.3</b>	<b>-9.7</b>
<b>Assessment of losses according to Italian Ministerial Decree No. 99/97 and, from 2014, also to the Resolution no 5/2014 of the Italian Authority AEEGSI</b>					
<b>Overall losses (parameter A17 MD 99/97) (53)</b>	<b>Mm<sup>3</sup></b>	<b>159.3</b>	<b>162.8</b>	<b>203.7</b>	<b>-</b>
<b>Effective losses (from 2014: item A13+A15 as per Resolution no 5/2014 of the AEEGSI) (54)</b>	<b>Mm<sup>3</sup></b>		<b>125.9</b>	<b>192.5</b>	<b>-</b>
			<i>26.6% of (51)</i>	<i>39.9% of (51)</i>	
<b>Water balance - Rome non-drinking water network</b>					
<b>Non-drinking water withdrawn from the environment (55)</b>	<b>Mm<sup>3</sup></b>	<b>29.7</b>	<b>25.6</b>	<b>25.2</b>	<b>-1.6</b>
<i>from the River Tiber, treated (Grottarossa plant)</i>	<i>Mm<sup>3</sup></i>	<i>4.7</i>	<i>2.2</i>	<i>0.7</i>	<i>-68.2</i>
<i>from springs</i>	<i>Mm<sup>3</sup></i>	<i>8.9</i>	<i>7.5</i>	<i>9.9</i>	<i>32.0</i>
<i>drinking water introduced onto non-drinking network</i>	<i>Mm<sup>3</sup></i>	<i>16.1</i>	<i>15.9</i>	<i>14.6</i>	<i>-8.2</i>
<b>Non-drinking water supplied to the Municipality of Rome (56)</b>	<b>Mm<sup>3</sup></b>	<b>14.1</b>	<b>14.3</b>	<b>14.0</b>	<b>-2.1</b>
<b>Non-drinking water supplied to other Municipalities (57)</b>	<b>Mm<sup>3</sup></b>	<b>0.03</b>	<b>0.03</b>	<b>0.03</b>	<b>0.0</b>
<b>Acea Ato 2 for ATO 2 - Central Lazio (Rome + municipalities acquired as of 31 Dec. 2014)</b>					
<b>Drinking water withdrawn from the environment (58)</b>	<b>Mm<sup>3</sup></b>	<b>715.4</b>	<b>728.5</b>	<b>722.2</b>	<b>-0.9</b>
<i>from Lake Bracciano, treated</i>	<i>Mm<sup>3</sup></i>	<i>21.9</i>	<i>7.3</i>	<i>19.8</i>	<i>171.2</i>
<i>from wells</i>	<i>Mm<sup>3</sup></i>	<i>89.6</i>	<i>76.2</i>	<i>84.4</i>	<i>10.8</i>
<i>from springs</i>	<i>Mm<sup>3</sup></i>	<i>602.3</i>	<i>642.4</i>	<i>612.1</i>	<i>-4.7</i>
<i>from other aqueduct systems</i>	<i>Mm<sup>3</sup></i>	<i>1.6</i>	<i>2.6</i>	<i>5.9</i>	<i>126.9</i>
<b>Drinking water sold to other aqueduct systems (59)</b>	<b>Mm<sup>3</sup></b>	<b>68.2</b>	<b>74.5</b>	<b>41.3</b>	<b>-44.6</b>
<b>Drinking water introduced onto non-drinking water network (60)</b>	<b>Mm<sup>3</sup></b>	<b>16.1</b>	<b>15.9</b>	<b>14.6</b>	<b>-8.2</b>
<b>Drinking water returned to the environment /technical operating volumes (61)</b>	<b>Mm<sup>3</sup></b>	<b>28.50</b>	<b>33.4</b>	<b>57.2</b>	<b>71.3</b>
<b>Drinking water introduced onto the ATO 2 network (62) = (58) - (59+60+61)</b>	<b>Mm<sup>3</sup></b>	<b>602.5</b>	<b>604.6</b>	<b>609.1</b>	<b>0.7</b>
<b>(62 A) Drinking water introduced onto the network: introduced onto the ATO 2 network + delivered to other aqueduct systems, as per Resolution no 5/2014 of the AEEGSI</b>	<b>Mm<sup>3</sup></b>	<b>-</b>	<b>-</b>	<b>650.6</b>	<b>-</b>
<b>Total drinking water supplied to the ATO 2 network (63)</b>	<b>Mm<sup>3</sup></b>	<b>349.7</b>	<b>346.4</b>	<b>357.2</b>	<b>-</b>

<b>&lt; WATER BALANCE OF THE COMPANIES OPERATING IN THE REGION OF LAZIO</b>	<b>unit of measurement</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>Δ% 2013/2012</b>
<b>Assessment of losses according to Italian Ministerial Decree No. 99/97 and, from 2014, also to the Resolution n.5/2014 of the Italian Authority AEEGSI</b>					
Overall losses (parameter A17 MD 99/97) (64)	Mm <sup>3</sup>	230.5	235.9	279.2	-
Effective losses (from 2014: item A13+A15 as per Resolution no 5/2014 of the AEEGSI) (65)	Mm <sup>3</sup>	177.6 (29.5% of 62)	183.4 (30.3% of 62)	264.2 (40.6% of 62A)	-
<b>Acea Ato 5 for ATO 5 –Southern Lazio - Frosinone (85 municipalities)</b>					
<b>Drinking water withdrawn from the environment (66)</b>	<b>Mm<sup>3</sup></b>	<b>98.8</b>	<b>110.6</b>	<b>109.9</b>	<b>-0.6</b>
<i>from lakes/rivers</i>	<i>Mm<sup>3</sup></i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>-</i>
<i>from wells</i>	<i>Mm<sup>3</sup></i>	<i>68.6</i>	<i>80.5</i>	<i>60.2</i>	<i>-25.2</i>
<i>from springs</i>	<i>Mm<sup>3</sup></i>	<i>30.2</i>	<i>30.1</i>	<i>49.7</i>	<i>65.1</i>
<b>Drinking water introduced onto network (67)</b>	<b>Mm<sup>3</sup></b>	<b>93.7</b>	<b>105.3</b>	<b>105.4</b>	<b>0.1</b>
<b>Drinking water supplied (68)</b>	<b>Mm<sup>3</sup></b>	<b>20.7</b>	<b>21.0</b>	<b>22.0</b>	<b>4.8</b>
<b>Assessment of losses according to Italian Ministerial Decree No. 99/97 and, from 2014, also to the Resolution n.5/2014 of the Italian Authority AEEGSI</b>					
Overall losses (parameter A17 MD 99/97) (68)	Mm <sup>3</sup>	70.4	81.6	80.6	-1.2
Effective losses (from 2014: item A13+A15 as per Resolution no 5/2014 of the AEEGSI) (70)	Mm <sup>3</sup>	56.6 (60.4% of 67)	66.3 (63.0% of 67)	65.2 (61.9% of 67)	-1.7

<b>TOTAL WASTE WATER TREATED BY THE GROUP COMPANIES, IN ITALY</b>	<b>unit of measurement</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>Δ% 2014/2013</b>
<b>Summarized figures</b>					
Waste water treated in main purification plants of the Group companies in Italy (71) (*)	Mm <sup>3</sup>	851.1	917.1	940.7	2.6

(\*) 2013 figure was corrected.

<b>WASTE WATER TREATED BY ACEA ATO 2</b>	<b>unit of measurement</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>Δ% 2014/2013</b>
<b>Waste water treated in main purification plants (72)</b>	<b>Mm<sup>3</sup></b>	<b>522.1</b>	<b>560.2</b>	<b>563.8</b>	<b>0.6</b>
<i>Rome South</i>	<i>Mm<sup>3</sup></i>	<i>300.2</i>	<i>331.8</i>	<i>329.6</i>	<i>-0.7</i>
<i>Rome North</i>	<i>Mm<sup>3</sup></i>	<i>96.7</i>	<i>96.2</i>	<i>95.6</i>	<i>-0.6</i>
<i>Rome East</i>	<i>Mm<sup>3</sup></i>	<i>87.8</i>	<i>94.0</i>	<i>98.4</i>	<i>4.7</i>
<i>Rome Ostia</i>	<i>Mm<sup>3</sup></i>	<i>24.5</i>	<i>26.8</i>	<i>27.0</i>	<i>0.7</i>
<i>CoBIS</i>	<i>Mm<sup>3</sup></i>	<i>7.4</i>	<i>7.3</i>	<i>8.8</i>	<i>20.5</i>
<i>Fregene</i>	<i>Mm<sup>3</sup></i>	<i>5.5</i>	<i>4.1</i>	<i>4.4</i>	<i>7.3</i>
<b>Other – municipality of Rome</b>	<b>Mm<sup>3</sup></b>	<b>14.4</b>	<b>14.1</b>	<b>13.5</b>	<b>-4.3</b>
<b>Other – outside Municipality of Rome</b>	<b>Mm<sup>3</sup></b>	<b>63.0</b>	<b>65.3</b>	<b>74.3</b>	<b>13.8</b>
<b>Total waste water treated by Acea Ato 2 (73)</b>	<b>Mm<sup>3</sup></b>	<b>599.5</b>	<b>639.6</b>	<b>651.6</b>	<b>1.8</b>

<b>WASTE WATER TREATED BY ACEA ATO 5</b>	<b>unit of measurement</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>Δ% 2014/2013</b>
Waste water treated in main purification plants (74)	Mm <sup>3</sup>	26.7	26.5	26.6	0.4

<b>ANALYTICAL CHECKS ON DRINKING WATER AND WASTE WATER FOR ACEA GROUP IN ITALY (*)</b>	<b>unit of measurement</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>Δ% 2014/2013</b>
<b>Summarized figures</b>					
Group total analytical checks on drinking water (75)	No.	1,169,201	1,208,178	1,187,937	-1.7
Group total analytical checks on waste water (76)	No.	409,202	467,077	467,248	0.04
<b>Acea Ato 2 Analytical checks</b>					
Analytical checks on drinking water - Acea Ato 2	No.	328,202	339,229	328,202	-3.3
Analytical checks on waste water- Acea Ato 2	No.	122,231	178,262	181,940	2.1
<b>Acea Ato 5 Analytical checks</b>					
Analytical checks on drinking water – Acea Ato 5	No.	79,953	78,830	71,842	-8.9
Analytical checks on waste water- Acea Ato 5	No.	23,816	24,820	24,611	-0.8

(\*) The number includes the controls carried out independently by each Company, and those carried out by Laboratorio in-house. Some data of the previous biennium have been adjusted.

# THE RESOURCES USED - ENERGY

The figures of the resources used refer to Acea Produzione (AP) (100% Acea SpA), A.R.I.A. (100% Acea SpA) and Acea Distribuzione (100% Acea SpA)

GENERATION, TRANSPORT AND SALE OF ELECTRICITY, HEAT AND PUBLIC LIGHTING	unit of measurement	2012	2013	2014	Δ% 2014/2013
<b>Natural gas</b>					
<b>Electricity and heat generation (77) = (78+79)</b>	<b>Nm<sup>3</sup> x 1,000</b>	<b>14,249</b>	<b>19,155</b>	<b>15,093</b>	<b>-21.2</b>
<b>Thermoelectric and heat production AP (78)</b>	<b>Nm<sup>3</sup> x 1,000</b>	<b>11,352</b>	<b>14,113</b>	<b>11,063</b>	<b>-21.6</b>
<i>Tor di Valle reserve boilers - for district heating</i>	<i>Nm<sup>3</sup> x 1,000</i>	<i>7,615</i>	<i>10,071</i>	<i>7,306</i>	<i>-27.5</i>
<i>Tor di Valle co-generation plant</i>	<i>Nm<sup>3</sup> x 1,000</i>	<i>3,328</i>	<i>4,042</i>	<i>3,757</i>	<i>-7.1</i>
<i>Tor di Valle combined cycle</i>	<i>Nm<sup>3</sup> x 1,000</i>	<i>408</i>	<i>0</i>	<i>0</i>	<i>-</i>
<b>Waste to energy (79)</b>	<b>Nm<sup>3</sup> x 1,000</b>	<b>2,897</b>	<b>5,042</b>	<b>4,030</b>	<b>-20.1</b>
<i>San Vittore del Lazio waste to energy plant</i>	<i>Nm<sup>3</sup> x 1,000</i>	<i>2,897</i>	<i>3,460</i>	<i>2,711</i>	<i>-21.6</i>
<i>Terni waste to energy plant (*)</i>	<i>Nm<sup>3</sup> x 1,000</i>	<i>n.a.</i>	<i>1,582</i>	<i>1,319</i>	<i>-16.6</i>
<b>Gas oil for thermoelectric generation</b>					
Montemartini plant (80)	l x 1,000	758	512	46	-91.0
<b>Refuse derived fuel (RDF) burnt</b>					
San Vittore del Lazio waste to energy plant (81)	t x 1,000	218.256	224.220	224.336	0.1
<b>Pulper from paper industry waste burnt</b>					
Terni waste to energy plant (82) (*)	t x 1,000	n.a.	69.417	99.397	43.2
<b>Water</b>					
<b>Cooling of thermoelectric plants AP (83) = (141)</b>	<b>Mm<sup>3</sup></b>	<b>0.80</b>	<b>0.00</b>	<b>0.00</b>	<b>-</b>
<b>Offtake for hydroelectric production (84)</b>	<b>Mm<sup>3</sup></b>	<b>2,740.50</b>	<b>4,436.62</b>	<b>4,222.16</b>	<b>-4.8</b>
<b>Process water (85)</b>	<b>Mm<sup>3</sup></b>	<b>0.1380</b>	<b>0.1604</b>	<b>0.1350</b>	<b>-15.8</b>
<b>Domestic/sanitary uses (86)</b>	<b>Mm<sup>3</sup></b>	<b>0.3776</b>	<b>0.2796</b>	<b>0.2535</b>	<b>-9.4</b>
<b>Sundry materials</b>					
<b>Dielectric mineral oil in operation (87)</b>	<b>t</b>	<b>4,587</b>	<b>9,462</b>	<b>9,706</b>	<b>(**)</b>
Dielectric mineral oil - oil loss make-up		24.2	74.8	18.8	(**)
<b>SF<sub>6</sub> in operation (88)</b>	<b>t</b>	<b>29.15</b>	<b>29.68</b>	<b>29.53</b>	<b>-0.5</b>
SF <sub>6</sub> - gas loss make-up	t	0.44	0.73	0.71	-2.7
<b>Coolants (HCFC type) loss replacement/make-up (89)</b>	<b>t</b>	<b>0.017</b>	<b>0.040</b>	<b>0.005</b>	<b>-87.5</b>
<b>Sundry chemicals (90)</b>	<b>kg</b>	<b>4,765,055</b>	<b>6,807,934</b>	<b>4,658,590</b>	<b>-31.6</b>
<i>Acidity corrector</i>	<i>kg</i>	<i>2,340</i>	<i>780</i>	<i>n.d.</i>	<i>-</i>
<i>Deoxygenating substances</i>	<i>kg</i>	<i>n.d.</i>	<i>n.d.</i>	<i>n.d.</i>	<i>-</i>
<i>Stabilizers and bio-dispersing agents</i>	<i>kg</i>	<i>1,300</i>	<i>n.d.</i>	<i>n.d.</i>	<i>-</i>
<i>Sodium chloride</i>	<i>kg</i>	<i>78,000</i>	<i>72,000</i>	<i>n.d.</i>	<i>-</i>
<i>Caustic soda</i>	<i>kg</i>	<i>71,990</i>	<i>98,630</i>	<i>75,510</i>	<i>-23.4</i>
<i>Sodium hypochlorite</i>	<i>kg</i>	<i>3,390</i>	<i>620</i>	<i>n.d.</i>	<i>-</i>
<i>Sodium bicarbonate</i>	<i>kg</i>	<i>3,982,720</i>	<i>5,983,440</i>	<i>3,665,910</i>	<i>-38.7</i>
<i>Hydrochloric acid</i>	<i>kg</i>	<i>68,675</i>	<i>101,759</i>	<i>89,120</i>	<i>-12.4</i>
<i>Ammoniacal solution</i>	<i>kg</i>	<i>556,640</i>	<i>550,705</i>	<i>567,730</i>	<i>3.1</i>
<i>Activated carbon</i>	<i>kg</i>	<i>-</i>	<i>-</i>	<i>190,000</i>	<i>-</i>
<b>Oil and greases / lubricants (91)</b>	<b>kg</b>	<b>4,986</b>	<b>5,125</b>	<b>1,537</b>	<b>-70.0</b>
<b>Electricity</b>					
<i>Consumed for electricity distribution (92) = (25)</i>	<i>GWh</i>	<i>757.12</i>	<i>701.72</i>	<i>673.59</i>	<i>-4.0</i>
<i>Consumed for electricity production (93) = (1)-(2)</i>	<i>GWh</i>	<i>47.17</i>	<i>50.71</i>	<i>51.80</i>	<i>3.2</i>
<i>Consumed for offices (50% of the electricity consumed by the Parent Company) (94)</i>	<i>GWh</i>	<i>5.20</i>	<i>5.77</i>	<i>4.61</i>	<i>-20.0</i>
<i>Other internal uses (95)</i>	<i>GWh</i>	<i>30.61</i>	<i>30.43</i>	<i>29.80</i>	<i>-2.1</i>
<b>Total (96) = (92+93+94+95)</b>	<b>GWh</b>	<b>840.10</b>	<b>788.41</b>	<b>759.80</b>	<b>-3.6</b>
<b>Public lighting</b>					
<b>Consumption for public lighting (97) (***)</b>	<b>GWh</b>	<b>n.d.</b>	<b>185.93</b>	<b>185.93</b>	<b>0,0</b>

(\*) Terni plant was shutdown for revamping work from 2010 to the end of 2012.

(\*\*) In 2014 the reporting boundary has changed. Please refer to the Explanatory notes.

(\*\*\*) 2012 and 2013 data have been adjusted compared to previous ones published as a result of a recalculation. The 2012, in particular, is not doable because overly approximated

# THE RESOURCES USED – ENVIRONMENT

The figures of the resources used refer to Kyklos and Solemme both of Aquaser Srl (100% Acea SpA) and to SAO, controlled by A.R.I.A. The figures of Samace will be integrated as of 2015. It should be noted that, following a serious incident at the plant of Kyklos, from July 30<sup>th</sup> 2014 the latter was placed under sequestration, preventing further contributions (see chapter *Suppliers*).

<b>LANDFILL WASTE DISPOSAL - SAO</b>	<b>unit of measurement</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>Δ% 2014/2013</b>
<b>Process water (98)</b>	m <sup>3</sup>	1,532	1,208	1,241	2.7
<b>Sundry chemicals (99)</b>	l	7,000	7,000	7,000	-
<b>Electricity (100)</b>	GWh	1.574	1.605	0.800	-50.2
<b>Gas oil (101)</b>	l	352,189	295,753	254,744	-13.9
<b>Domestic/sanitary water uses (101 A)</b>	m <sup>3</sup>	1,098	1,476	1,292	-12.5

<b>PRODUCTION OF COMPOST</b>	<b>unit of measurement</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>Δ% 2014/2013</b>
<b>Process water (Kyklos, Solemme) (102)</b>	m <sup>3</sup>	0	0	0	-
<b>Sundry materials (Kylos, Solemme) (103)</b>	t	139.39	265.32	109.31	-58.8
<i>Sodium hydroxide</i>	t	12.89	14.83	4.82	-67.5
<i>Hypochlorite</i>	t			8.40	-
<i>Sulphuric acid</i>	t	126.50	250.49	96.09	-61.6
<b>Electricity (104) (Kylos, Solemme)</b>	GWh	2.971	3.492	2.693	-22.9
<b>Fuels (105) (Kylos, Solemme)</b>	t	136.90	128.30	85.90	-33.0
<i>Gas oil</i>	t	136.90	128.30	85.90	-33.0

# THE RESOURCES USED - WATER

The figures of the resources used refer to the water Group companies: Acea Ato 2, Acea Ato 5.

<b>CATCHMENT, TRANSPORTATION AND DISTRIBUTION OF DRINKING AND NON-DRINKING WATER</b>	<b>unit of measurement</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>Δ% 2014/2013</b>
<b>Sundry materials and natural resources</b>					
<b>Reagents for purification and disinfection (106)</b>	<b>t</b>	<b>1,932.68</b>	<b>2,033.14</b>	<b>1,819.00</b>	<b>-10.5</b>
<b>Reagents used in chemical analyses (107)</b>	<b>t</b>	<b>1.30</b>	<b>1.40</b>	<b>1.50</b>	<b>7.1</b>
<b>Gas used in chemical analyses (108)</b>	<b>MNm<sup>3</sup></b>	<b>3.13</b>	<b>4.06</b>	<b>5.01</b>	<b>23.4</b>
<b>Coolants (HCFC type) replacement/make-up (109)</b>	<b>t</b>	<b>0.017</b>	<b>0.040</b>	<b>0.005</b>	<b>-10.7</b>
<b>Electricity</b>					
<i>Water pumping plants (110)</i>	<i>GWh</i>	<i>216.57</i>	<i>196.42</i>	<i>193.15</i>	<i>-1.7</i>
<i>Offices /internal use (50% of energy consumed by the Parent Company (111) = (94))</i>	<i>GWh</i>	<i>5.20</i>	<i>5.77</i>	<i>4.61</i>	<i>-20.0</i>
<i>Chemical laboratory (112)</i>	<i>GWh</i>	<i>1.25</i>	<i>1.22</i>	<i>1.09</i>	<i>-10.7</i>
<b>Total electricity consumed (113) = (110+111+112)</b>	<b>GWh</b>	<b>223.02</b>	<b>203.41</b>	<b>198.85</b>	<b>-2.2</b>
<b>Drinking water</b>					
<i>Domestic/sanitary uses (114)</i>	<i>Mm<sup>3</sup></i>	<i>1.36</i>	<i>0.99</i>	<i>1.32</i>	<i>33.0</i>
<i>Offices (50% of drinking water consumed by Parent Company) (115)</i>	<i>Mm<sup>3</sup></i>	<i>0.21</i>	<i>0.15</i>	<i>0.13</i>	<i>-4.0</i>
<b>Total drinking water consumed (116) = (114+115)</b>	<b>Mm<sup>3</sup></b>	<b>1.57</b>	<b>1.15</b>	<b>1.45</b>	<b>26.1</b>

<b>WASTE WATER TREATMENT</b>	<b>unit of measurement</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>Δ% 2014/2013</b>
<b>Sundry materials and natural resources used</b>					
<b>Reagents used in waste water treatment (117)</b>	<b>t</b>	<b>6,551</b>	<b>6,620</b>	<b>6,534</b>	<b>-1.3</b>
<i>Polyelectrolytes used to dehydrate sludge</i>	<i>t</i>	<i>1,132</i>	<i>1,234</i>	<i>1,222</i>	<i>-1.0</i>
<i>Sodium hypochlorite for final disinfection</i>	<i>t</i>	<i>2,928</i>	<i>3,047</i>	<i>3,042</i>	<i>-0.2</i>
<i>Ferric chloride used to dehydrate sludge</i>	<i>t</i>	<i>619</i>	<i>617</i>	<i>568</i>	<i>-7.9</i>
<i>Lime, Formic acid, aluminium polychloride</i>	<i>t</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>-</i>
<i>Peracetic acid</i>	<i>t</i>	<i>1,739</i>	<i>1,604</i>	<i>1,667</i>	<i>3.9</i>
<i>Others (anti-foaming agents, etc.)</i>	<i>t</i>	<i>133</i>	<i>118</i>	<i>35</i>	<i>-70.3</i>
<b>Mineral oil and grease (118)</b>	<b>t</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-</b>
<b>Electricity</b>					
<b>Sewage and purification systems (119)</b>	<b>GWh</b>	<b>179.2</b>	<b>179.7</b>	<b>191.6</b>	<b>6.6</b>

## FUELS USED BY THE GROUP COMPANIES FOR AUTOMOTIVE AND HEATING PURPOSES

The figures concerning the Vehicle Pool refer to the main Group companies: Acea Ato 2, Acea Ato 5, Acea Distribuzione, Acea SpA, Laboratorio, Acea Reti e Servizi Energetici.

The figures concerning heating purposes refer to Acea SpA, Acea Ato 2, Acea Distribuzione and Acea Produzione.

<b>FUEL TYPE</b>	<b>unit of measurement</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>Δ% 2014/2013</b>
<b>Automotive (Group Vehicle Pool)</b>					
<b>Gasoline (120)</b>	<b>l x 1,000</b>	<b>831.6</b>	<b>643.9</b>	<b>406.0</b>	<b>-37.0</b>
<b>Diesel (121)</b>	<b>l x 1,000</b>	<b>848.3</b>	<b>697.7</b>	<b>984.5</b>	<b>41.1</b>
<b>Heating</b>					
<b>Gas oil (122)</b>	<b>l x 1,000</b>	<b>8.7</b>	<b>4.4</b>	<b>10.8</b>	<b>145.5</b>
<b>Natural gas (123)</b>	<b>Nm<sup>3</sup> x 1,000</b>	<b>690.3</b>	<b>386.0</b>	<b>488.5</b>	<b>26.6</b>
<b>LPG (124)</b>	<b>l x 1,000</b>	<b>24.5</b>	<b>24.9</b>	<b>23.9</b>	<b>-4.2</b>



# EMISSIONS AND WASTE - ENERGY

The figures concerning emissions and waste refer to Acea Produzione (AP), waste to energy plants of A.R.I.A. and Acea Distribuzione.

AIR EMISSIONS	Unit of measurement	2012	2013	2014	Δ% 2014/2013
<b>CO<sub>2</sub> (125) = (126+126B+127)</b>	<b>t</b>	<b>136,396</b>	<b>242,048</b>	<b>265,056</b>	<b>9.5</b>
<i>Acea Produzione (126)</i>	<i>t</i>	<i>25,364</i>	<i>30,404</i>	<i>21,140</i>	<i>-30.5</i>
<i>Acea Distribuzione - from SF<sub>6</sub> (126 B)</i>	<i>t</i>	<i>10,032</i>	<i>16,644</i>	<i>16,188</i>	<i>-2.7</i>
<i>A.R.I.A. (127)</i>	<i>t</i>	<i>101,000</i>	<i>195,000</i>	<i>227,728</i>	<i>16.8</i>
<b>NO<sub>x</sub> (128) = (129 + 130)</b>	<b>t</b>	<b>96.76</b>	<b>155.03</b>	<b>177.12</b>	<b>14.2</b>
<i>Acea Produzione (129)</i>	<i>t</i>	<i>51.34</i>	<i>48.04</i>	<i>40.05</i>	<i>-16.6</i>
<i>A.R.I.A. (130)</i>	<i>t</i>	<i>45.42</i>	<i>106.99</i>	<i>137.07</i>	<i>28.1</i>
<b>CO (131) = (132 + 133)</b>	<b>t</b>	<b>10.12</b>	<b>9.94</b>	<b>6.81</b>	<b>-31.5</b>
<i>Acea Produzione (132)</i>	<i>t</i>	<i>4.16</i>	<i>2.76</i>	<i>2.15</i>	<i>-22.1</i>
<i>A.R.I.A. (133)</i>	<i>t</i>	<i>5.96</i>	<i>7.18</i>	<i>4.66</i>	<i>-35.1</i>
<b>SO<sub>2</sub> (134) = (135 + 136)</b>	<b>t</b>	<b>0.04</b>	<b>0.23</b>	<b>0.20</b>	<b>-13.0</b>
<i>Acea Produzione (135)</i>	<i>t</i>	<i>0.03</i>	<i>0.02</i>	<i>0.00</i>	<i>-100.0</i>
<i>A.R.I.A. (136)</i>	<i>t</i>	<i>0.01</i>	<i>0.21</i>	<i>0.20</i>	<i>-4.8</i>
<b>Dust (137) = (138 + 139)</b>	<b>t</b>	<b>0.05</b>	<b>0.46</b>	<b>0.50</b>	<b>9.5</b>
<i>Acea Produzione (138)</i>	<i>t</i>	<i>0.04</i>	<i>0.03</i>	<i>0.01</i>	<i>-66.7</i>
<i>A.R.I.A. (139)</i>	<i>t</i>	<i>0.01</i>	<i>0.43</i>	<i>0.49</i>	<i>14.9</i>
<b>HCL</b>	<b>t</b>	<b>n.d.</b>	<b>2.29</b>	<b>2.45</b>	<b>6.9</b>
<i>A.R.I.A. San Vittore</i>	<i>t</i>	<i>n.d.</i>	<i>2.29</i>	<i>2.45</i>	<i>6.9</i>
<b>HF</b>	<b>t</b>	<b>n.d.</b>	<b>0.10</b>	<b>0.18</b>	<b>83.0</b>
<i>A.R.I.A. San Vittore</i>	<i>t</i>	<i>n.d.</i>	<i>0.10</i>	<i>0.18</i>	<i>83.0</i>

OTHER EMISSIONS AND WASTE	Unit of measurement	2012	2013	2014	Δ% 2014/2013
<b>Waste water treated (140)</b>	<b>Mm<sup>3</sup></b>	<b>0,0001</b>	<b>0,0007</b>	<b>0,0008</b>	<b>27,5</b>
<b>Cooling water returned (141) = (83)</b>	<b>Mm<sup>3</sup></b>	<b>0,803</b>	<b>0,000</b>	<b>0,000</b>	<b>-</b>
<b>50 Hz electric fields</b>	<b>kV</b>	<b>Monitored</b> Commitment to keep within the legal limits			
<b>50 Hz magnetic fields</b>	<b>μT</b>	<b>Monitored</b> Commitment to keep within the legal limits			
<b>Noise</b>	<b>dB</b>	<b>Monitored</b> Commitment to keep within the legal limits			
<b>Dispersed luminous flux</b>	<b>Mlumen</b>	Commitment to design the plants in order to limit to the maximum the percentage of emissions dispersed towards the sky			

WASTE (LEG. DEC. NO 152/06)	Unit of measurement	2012	2013	2014	Δ% 2014/2013
<b>Hazardous waste excluding - waste to energy area (142)</b>	<b>t</b>	<b>665.60</b>	<b>849.98</b>	<b>1.594.57</b>	<b>87.7</b>
<i>Energy sector production</i>	<i>t</i>	<i>663.50</i>	<i>847.97</i>	<i>1,593.40</i>	<i>27.8</i>
<i>Portion deriving from activities carried out by Parent Company (*)</i>	<i>t</i>	<i>2.10</i>	<i>2.01</i>	<i>1.17</i>	<i>-41.8</i>
<b>Hazardous waste of waste to energy area (143)</b>	<b>t</b>	<b>39,354.0</b>	<b>44,561.7</b>	<b>47,158.90</b>	<b>5.8</b>
<b>Non-hazardous waste excluding waste to energy area (144)</b>	<b>t</b>	<b>1,316.5</b>	<b>993.1</b>	<b>870.46</b>	<b>-12.3</b>
<i>Energy sector production</i>	<i>t</i>	<i>1,303.3</i>	<i>966.4</i>	<i>844.40</i>	<i>-12.6</i>
<i>Portion deriving from activities carried out by Parent Company (*)</i>	<i>t</i>	<i>13.2</i>	<i>26.7</i>	<i>26.06</i>	<i>-2.5</i>
<b>Non-hazardous waste of waste to energy area (145)</b>	<b>t</b>	<b>1,684.9</b>	<b>10,408.7</b>	<b>13,720.30</b>	<b>31.8</b>

(\*) 50% of waste produced by Parent Company.

# EMISSIONS AND WASTE – ENVIRONMENT

The figures refer to Kyklos, Solemme and Samace, of Aquaser Srl (100% Acea SpA) and to SAO, controlled by Aquaser. It should be noted that, following a serious incident at the plant of Kyklos, from July 30<sup>th</sup> 2014 the latter was placed under sequestration, preventing further contributions. The plant of Samace has been assimilated at the end of 2013 – for year 2014 not all data are available. In particular emission data refer to Kyklos and Solemme and Sao when specified.

WASTE (LEG. DEC. NO 152/06)	unit of measurement	2012	2013	2014	Δ% 2014/2013
<b>Hazardous waste of Kyklos + Solemme (146)</b>	t	1.6	1.79	48.90	-
<b>Non-hazardous waste of Kyklos + Solemme (147) excluding the leachate</b>	t	3,832.37	4,790.98	4,644.14	-3.0
<b>Hazardous waste of SAO (148)</b>	t	1.2	0.7	1.4	100.0
<b>Leachate (149)</b>	t	29,564.19	31,290.70	32,250.04	3.1
<i>Kyklos</i>	t	11,316.5	10,289.1	9,773.84	-5.0
<i>Solemme</i>	t	55.72	351.56	842.20	139.6
<i>SAO</i>	t	18,192	20,650	21,634	4.8

AIR EMISSIONS	unit of measurement	2012	2013	2014	Δ% 2014/2013
<b>Dust(150)</b>	t	8.56	6.30	10.48	66.3
<b>Total Organic Compound (151)</b>	t	4.51	6.15	5.49	-10.8
<b>Ammonia (152)</b>	t	1.57	1.74	5.84 (*)	-
<b>Volatile inorganic acids (153)</b>	t	1.5	1.91	1.24	-35.1

(\*) For 2014 the amount emitted in the year at Solemme is also included.

# EMISSIONS AND WASTE - WATER

The figures refer to the water companies Acea Ato 2 and Acea Ato 5.

WASTE	Unit of measurement	2012	2013	2014	Δ% 2014/2013
<b>Specific waste from waste water treatment</b>					
<b>Total treatment sludge (154) = (155+156)</b>	<b>t</b>	<b>152,289</b>	<b>151,673</b>	<b>158,921</b>	<b>4.8</b>
<i>Treatment sludge - Acea Ato 2 (155)</i>	<i>t</i>	<i>136,831</i>	<i>136,305</i>	<i>150,533</i>	<i>10.4</i>
<i>Treatment sludge - Acea Ato 5 (156)</i>	<i>t</i>	<i>15,458</i>	<i>15,368</i>	<i>8,388</i>	<i>-45.4</i>
<b>Total sand and sediment from treatment (157)</b>	<b>t</b>	<b>9,621</b>	<b>10,736</b>	<b>11,375</b>	<b>6.0</b>
<i>sand and sediment - Acea Ato 2 (158)</i>	<i>t</i>	<i>9,332</i>	<i>10,442</i>	<i>11,282</i>	<i>8.0</i>
<i>sand and sediment - Acea Ato 5 (159)</i>		<i>289</i>	<i>294</i>	<i>93</i>	<i>-68.4</i>
<b>Waste (ex Leg. Dec. No 152/06)</b>					
<b>Total hazardous waste (160) = (161+162+163)</b>	<b>t</b>	<b>60.1</b>	<b>201.0</b>	<b>119.0</b>	<b>-40.8</b>
<i>Production from Acea Ato 2 and LaboratoRI (161)</i>	<i>t</i>	<i>53.5</i>	<i>194.3</i>	<i>117.1</i>	<i>-39.7</i>
<i>Production from Acea Ato 5 (162)</i>		<i>4.6</i>	<i>4.7</i>	<i>0.8</i>	<i>-80.0</i>
<i>Portion deriving from activities carried out by Parent Company (163) (*)</i>	<i>t</i>	<i>2.1</i>	<i>2.0</i>	<i>1.2</i>	<i>-41.8</i>
<b>Total non-hazardous waste (164) = (165+166+167+168)</b>	<b>t</b>	<b>5,246.0</b>	<b>4,875.2</b>	<b>7,466.9</b>	<b>-53.2</b>
<i>Production from Acea Ato 2 and LaboratoRI (165)</i>	<i>t</i>	<i>325.1</i>	<i>251.4</i>	<i>372.8</i>	<i>48.3</i>
<i>Production from Acea Ato 5 (166)</i>		<i>4,200.0</i>	<i>4,386.0</i>	<i>7,027.0</i>	<i>60.2</i>
<i>Portion deriving from activities carried out by Parent Company (167) (*)</i>	<i>t</i>	<i>13.2</i>	<i>26.7</i>	<i>26.1</i>	<i>-2.5</i>
<i>Inert material (168)</i>	<i>t</i>	<i>707.7</i>	<i>211.0</i>	<i>41.04</i>	<i>-80.5</i>
<b>Other emissions and waste</b>					
<b>Noise</b>	<b>dB</b>	<b>Monitored</b> Commitment to keep within the legal limits			
<b>Smells</b>		<b>Monitored</b> Commitment to keep within the limit of perception in areas nearby treatment plants			

(\*) 50% of waste produced by Parent Company.

## EMISSIONS FROM VEHICLES AND AIR-CONDITIONING

The figures concerning the Car Pool refer to the main companies of the Group: Acea Ato 2, Acea Ato 5, Acea Distribuzione, Acea Spa, LaboratoRI, Acea Reti e Servizi Energetici.

The figures concerning heating purposes refer to Acea SpA, Acea Ato 2, Acea Distribuzione and Acea Produzione.

GROUP COMPANIES	Unit of measurement	2012	2013	2014	Δ% 2014/2013
<b>Vehicles</b>					
CO <sub>2</sub> (169)	t	3,993	3,166.6	3,051.4	-3.6
NO <sub>x</sub> (170)	t	7.9	6.4	8.2	28.1
CO (171)	t	39.5	30.7	20.5	-33.2
SO <sub>2</sub> (172)	t	n.d.	n.d.	n.d.	-
<b>Heating</b>					
CO <sub>2</sub> (173)	t	1,766	1,003	1,368	36.4

# ENVIRONMENTAL SUSTAINABILITY PERFORMANCE – ENERGY

Key environmental performance indicators (Key Performance Indicators)

INDICATOR	unit of measurement	2012	2013	2014
<b>Energy used in processes</b>				
A Consumption for electricity distribution	TJoules (GWh)	1,377.2 (382.6)	1,512.7 (420.2)	1,332.4 (370.1)
B for electricity production (item 93)	TJoules (GWh)	169.8 (47.17)	182.6 (50.71)	186.5 (51.80)
C Heat loss on district heating network. (item 20)	TJoules (GWh)	41.8 (11.6)	82.1 (22.8)	68.0 (18.9)
D Consumption for public lighting (*) (item 97)	TJoules (GWh)	n.d.	669.3 (185.93)	669.3 (185.93)
E Consumption for Environment (100+104)	TJoules (GWh)	16.2 (4.5)	18.4 (5.1)	12.6 (3.5)
F Water distribution (dato 113 – 111)	TJoules (GWh)	784.2 (217.8)	711.6 (197.7)	699.5 (194.3)
G Waste water treatment (item 119)	TJoules (GWh)	645.1 (179.2)	646.9 (179.7)	689.8 (191.6)
H Electricity for offices (item 94 + 11)	TJoules (GWh)	37.4 (10.4)	41.4 (11.5)	33.12 (9.2)
I Consumption for office heating	TJoules (GWh)	24.6 (6.8)	14.0 (3.9)	19.1 (5.3)
L Vehicles (item 120 + 121)	TJoules (GWh)	56.5 (15.,7)	45.2 (12.6)	48.4 (13.4)
<b>Indirect consumption + consumption from vehicles + heating</b>	<b>TJoules (GWh)</b>	<b>3,822.1 (1,061.7)</b>	<b>3,924.2 (1,090.1)</b>	<b>3,758.7 (1,044.1)</b>
M - Energy losses when converting from primary sources to electricity	TJoules (GWh)	2,884.6 (801.3)	3,976.6 (1,104.6)	4,492.4 (1,287.8)
<b>Total energy use (sum A : M)</b>	<b>TJoules (GWh)</b>	<b>6,706.7 (1,863.0)</b>	<b>7,900.8 (2,194.7)</b>	<b>8,251.1 (2,331.8)</b>
<b>EMISSIONS, EFFLUENT, AND WASTE</b>				
<b>Greenhouse gas emissions (CO<sub>2</sub>)</b> (dato 125 + 169 + 173)	<b>t</b>	<b>142,155</b>	<b>246,218</b>	<b>269,475</b>
<b>Emissions of SO<sub>2</sub>, NO<sub>x</sub> and other significant gases by type</b>				
<b>NO<sub>x</sub></b> (item 128 + 170)	<b>t</b>	<b>104.66</b>	<b>161.43</b>	<b>185.32</b>
<b>CO</b> (item 131 + 171)	<b>t</b>	<b>49.62</b>	<b>40.64</b>	<b>27.31</b>
<b>SO<sub>2</sub></b> (item 134 + 172)	<b>t</b>	<b>0.04</b>	<b>0.23</b>	<b>0.20</b>
<b>Acea (Acea Produzione and A.R.I.A.) emission/production indicators</b>				
<b>NO<sub>x</sub>/thermoelectric production</b>	<b>g/kWh</b>	<b>0.80</b>	<b>1.02</b>	<b>1.10</b>
<b>CO<sub>2</sub>/thermoelectric production</b>	<b>g/kWh</b>	<b>548</b>	<b>830</b>	<b>837</b>
<b>CO<sub>2</sub>/total gross production</b>	<b>g/kWh</b>	<b>193.9</b>	<b>286.9</b>	<b>308.0</b>
<b>SO<sub>2</sub>/thermoelectric production</b>	<b>g/kWh</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

(\*) The 2013 figure has been recalculated; the 2012 figure is not available but it is estimated that its contribution to the formation of the indicator can be represented with a value identical to that of biennium 2013-2014 (185.9).

INDICATOR	unit of measurement	2012	2013	2014
<b>PRODUCTS AND SERVICES: ELECTRICITY</b>				
<b>Electricity production process efficiency - Acea Produzione figures (*)</b>				
<b>Gross average efficiency of thermoelectric production</b> (calculation 1)	%	<b>26.3</b>	<b>24.1</b>	<b>25.7</b>
Tor di Valle plant (combined cycle)	%	25.2	0.0	0.0
Tor di Valle plant (co-generation - solely electricity efficiency)	%	26.5	24.0	25.8
Montemartini plant	%	26.0	25.4	11.3
<b>Gross average efficiency of thermoelectric production including recovered thermal energy</b> (calculation 2)	%	<b>55.3</b>	<b>57.4</b>	<b>63.6</b>
<b>Gross average efficiency of hydroelectric production</b> (calculation 3)	%	<b>82.7</b>	<b>83.1</b>	<b>81.2</b>
<b>Gross average efficiency of total production</b> (calculation 4)	%	<b>80.8</b>	<b>81.8</b>	<b>80.1</b>
<b>Gross average efficiency of total production including recovered heat</b> (calculation 5)	%	<b>81.8</b>	<b>82.4</b>	<b>80.7</b>
<b>Electricity generation process efficiency - Waste to energy plants</b>				
<b>San Vittore del Lazio plant</b>				
<b>Refuse derived fuel/gross electricity produced-San Vittore</b>	Kt/GWh	<b>1.00</b>	<b>1.109</b>	<b>1.094</b>
<b>Gross efficiency of RDF conversion in electricity</b> (calculation 6)	kWh /kg RDF	<b>1.00</b>	<b>0.90</b>	<b>0.91</b>
<b>Electric efficiency</b> (calculation 7)	%	<b>23.2</b>	<b>20.9</b>	<b>20.0</b>
<b>Terni</b>				
<b>Gross efficiency of Pulper conversion in electricity</b> (calculation 8)	kWh /kg pulper	<b>n.a.</b>	<b>0.83</b>	<b>0.82</b>
<b>Electric efficiency</b> (calculation 9)	%	<b>n.a.</b>	<b>18.7</b>	<b>18.3</b>
<b>Electricity generation process efficiency - photovoltaic plants</b>				
<b>Average efficiency of photovoltaic units</b>	%	<b>14.0</b>	<b>14.0</b>	<b>14.0</b>
<b>Altri Other indicators (surroundings, public lighting, controls, water leaks)</b>				
<b>Specific production of waste</b>	g/kWh	<b>0.58</b>	<b>0.57</b>	<b>0.82</b>
<b>Protection of the surrounding areas</b> total length of HV lines in cables / (length of HV overhead and in cable lines) x 100	%	<b>39.31</b>	<b>42.93</b>	<b>42.42</b>
<b>Public lighting flux efficiency</b> (dato 31 / dato 97)	Lumen/kWh	<b>n.d.</b>	<b>17.6</b>	<b>18.2</b>
<b>Average efficiency of installed lamps</b> (dato 31 / wattage)	Lumen/W	<b>80.5</b> (39,020 kW)	<b>82.7</b> (39,590 kW)	<b>84.3</b> (40,069 kW)
<b>Specific consumption per lighting unit</b> (dato 97 / n. punti luce)	kWh/lighting unit (No. lighting units x year)	<b>n.d.</b>	<b>981.88</b> (189,361)	<b>964.92</b> (192,690)
<b>Percentage of illuminated roads (**)</b>	% (km of lighted roads/km of total roads)	<b>n.d.</b>	<b>84.8</b> % (6,032/7,110)	<b>85.9</b> % (6,107/7,110)
<b>No. of operating and laboratory checks /GWh net electricity sold</b> (item 32) / (item 29)	n./GWh	<b>0.14</b>	<b>0.12</b>	<b>0.13</b>
<b>SF<sub>6</sub> gas loss make-up /km of electricity distribution network</b>	kg/km	<b>0.0147</b>	<b>0.0243</b>	<b>0.0234</b>
<b>Total electricity losses</b> (item 25) / (item 24) (***)	% of required energy	<b>6.4</b>	<b>6.2</b>	<b>6.1</b>

(\*) The thermoelectricity generation efficiencies, calculated using computation as described before the explanatory notes at the end of the document, are strongly affected by the low level of production recorded also in 2014 at the combined cycle power plant of Tor di Valle. Such calculations therefore have to be evaluated cautiously because not complying with typical values of the plant technologies used.

(\*\*) This is an estimate.

(\*\*\*) The total electricity losses include: initial transformation loss, transport loss, internal consumptions and technical and commercial losses, these due to incorrect measurements and fraud.

# ENVIRONMENTAL SUSTAINABILITY PERFORMANCE – WATER

Key environmental performance indicators (Key Performance Indicators)

Boundary: Acea Ato 2 and Acea Ato 5.

INDICATOR	Unit of measurement	2012	2013	2014
<b>Carbon footprint</b>				
<b>WATER SERVICE IN ITALY</b>				
Total CO <sub>2</sub> /m <sup>3</sup> of water supplied (integrated water service) (*)	kgCO <sub>2</sub> /m <sup>3</sup>	0.43	0.42	0.41
CO <sub>2</sub> /m <sup>3</sup> of water supplied (distribution process)	kgCO <sub>2</sub> /m <sup>3</sup>	0.24	0.22	0.21
CO <sub>2</sub> /m <sup>3</sup> of treated water (treatment process)	kgCO <sub>2</sub> /m <sup>3</sup>	0.11	0.11	0.11
<b>DRINKING WATER SERVICE</b> (Assessment parameters as per Italian Ministerial Decree No. 99/97 and from 2014 also according to the Resolution n. 5/2014 of the AEEGSI)				
<b>Acea Ato 2 network</b>				
Primary efficiency (R1): (item 63) / (item 62)	%	58.0	57.3	58.6
REfficiency at consumption level (R2): (item 63 + A 11) / (item 62) A 11 = 12.35 Mm <sup>3</sup> for 2014	%	58.1	58.4	60.7
Net efficiency (R3): (item 63 + A 11 + A 12) / (item 62) A 12 = 0.005% di (item 63)	%	58.2	60.4	61.0
<b>"Historic" network (Rome + Fiumicino)</b>				
Primary efficiency (R1) "historic" network: (item 52) / (item 51)	%	63.0	62.4	55.2
Efficiency at consumption level (R2): (item 52 + A 11) / (item 51) A 11 = 11.55 Mm <sup>3</sup> for 2014	%	64.3	63.6	57.6
Net efficiency (R3): (item 52 + A 11 + A 12) / (item 51) A 12 = 0.005% di (item 52)	%	66.3	65.6	57.9
<b>PRODUCT: DRINKING WATER</b>				
<b>Acea Ato 2 network</b>				
Linear index of overall drinking water losses (as per MD No. 99/97: A17 / km rete) (item 64) / (km of network) (**)	m <sup>3</sup> x1,000/km (10,508.5 km)	21.8	22.3	25.3
Linear index of effective distribution losses (as per MD no 99/97 and the AEEGSI Resolution no 5/2014): (A15+A13) / km of network) (item 65) / (km of network) (**)	m <sup>3</sup> x1,000/km (10,508.5 km)	16.9	17.4	24.0
Specific electricity consumption for water network (Ato 2 energy network consumption) / (item 62)	kWh/m <sup>3</sup>	0.259	0.226	0.221
No. of checks on drinking water distributed (item 75 - drinking water Acea Ato 2) / (item 62)	n./Mm <sup>3</sup>	545	561	562
Additive Index of drinking water (item 132 - network of Acea Ato 2) / (item 62)	g/m <sup>3</sup>	2.8	3.0	2.6
<b>"Historic network" (Rome + Fiumicino)</b>				
Linear index of overall drinking water losses (as per MD no 99/97: A17 / km of network) (item 53) / (km of network) (**)	m <sup>3</sup> x1,000/km (7,207.3)	22.1	22.4	27.9
Linear index of effective distribution losses (as per MD No. 99/97 and the AEEGSI Resolution no 5/2014): (A15 + A13) / (km of network) (item 54) / (km of network) (**)	Mm <sup>3</sup> x1,000/km (7,207.3)	16.9	17.3	26.3
<b>SERVICE: WASTE WATER TREATMENT (Acea Ato 2 + Acea Ato 5)</b>				
Total sludge disposed of (item 154)	t	152,289	151,673	158,921
Sand and sediment removed (item 157)	t	9,621	10,736	11,375
COD in	t	168,312	158,354	153,152
COD removed	t	133,210	124,339	122,999
Additive process index - Acea Ato 2	g/m <sup>3</sup>	10.44	9.89	9.06
Specific electricity consumption for treatment process - Acea Ato 2	kWh/m <sup>3</sup>	0.273	0.257	0.270
Intensity of checks on waste water - Acea Ato 2	n./Mm <sup>3</sup>	195.9	256.7	269.7
<b>COMPLIANCE</b>				
Penalty paid for non-compliance with environmental regulations/agreements (***)	euro	470,291	98,770	91,002

(\*) "Scope 2" emissions, arising from electricity consumption of the water companies considered.

(\*\*) These are the kilometres of distribution and transportation network. From 2014 the losses are calculated considering the AEEGSI Resolution n.5/2014 and that no comparison can be made with previous years.

(\*\*\*) Penalties paid by Acea Ato 2, Acea Ato 5, Acea Produzione, ARIA, Acea Distribuzione.

# ENVIRONMENTAL SUSTAINABILITY PERFORMANCE – ENVIRONMENT

Key environmental performance indicators (Key Performance Indicators)

INDICATOR	unit of measurement	2012	2013	2014
Non-hazardous waste disposed in landfill / total waste entered at plant (item 34)/(item 33)	t/t	0.86	0.83	0.91
Waste disposed in landfill / energy consumed (item 34)/(item 100)	t/kWh	0.08	0.06	0.11
Waste disposed in landfill / energy consumed net of photovoltaic production	t/kWh	0.10	0.08	0.15
Compost/ incoming waste (item 41)/(item 38 + item 39 + item 40)	t/t	0.20	0.29	0.27
Compost produced/electricity consumed (item 41)/(item 104)	kg/kWh	3.92	5.27	5.58

## DESCRIPTION OF THE CALCULATIONS USED TO DETERMINE ELECTRICITY GENERATION EFFICIENCY

### CALCULATION 1

$$\text{efficiency (thermoelectric)} = \frac{\text{Energy}_{\text{thermoelectric}} \text{ (kWh)}}{\text{Energy}_{\text{diesel oil}} \text{ (kWh)} + \text{Energy}_{\text{natural gas}} \text{ (kWh)}}$$

where:

$\text{Energy}_{\text{thermoelectric}}$  = gross electricity produced using thermoelectric cycle

$$\text{Energy}_{\text{diesel oil}} \text{ (kWh)} = \frac{\text{diesel oil (l)} \cdot 0.835 \cdot \text{NCV}_d \text{ (kCal/kg)}}{860 \text{ (kCal/kWh)}} \quad \text{Energy equivalent to diesel oil consumed (80)}$$

$$\text{Energy}_{\text{natural gas}} \text{ (kWh)} = \frac{\text{natural gas (Nm}^3\text{)} \cdot \text{NCV}_m \text{ (kCal/Nm}^3\text{)}}{860 \text{ (kCal/kWh)}} \quad \text{Energy equivalent to natural gas consumed (78)}$$

$\text{NCV}_m$  = 8,500 kCal/Nm<sup>3</sup> (net calorific value of natural gas)

$\text{NCV}_d$  = 10,000 kCal/kg (net calorific value of diesel oil)

860 = energy conversion factor from kcal to kWh

0.835 = specific weight of diesel oil (kg/l)

NB: the calorific values used for Acea Produzione are the effective ones taken from the gaugings of the natural gas and diesel oil suppliers

### CALCULATION 2

$$\text{efficienc (thermoelectric)} = \frac{\text{Energy}_{\text{thermoelectric}} \text{ (kWh)} + \text{Energy thermal (kWh)}}{\text{Energy}_{\text{diesel oil}} \text{ (kWh)} + \text{Energy}_{\text{natural gas}} \text{ (kWh)}}$$

where:

$\text{Energy}_{\text{thermal}}$  = Gross thermal energy produced

$\text{Energy}_{\text{thermoelectric}}$  = Gross thermoelectric energy produced

$$\text{Energy}_{\text{diesel oil}} \text{ (kWh)} = \frac{\text{diesel oil (l)} \cdot 0.835 \cdot \text{NCV}_d \text{ (kCal/kg)}}{860 \text{ (kCal/kWh)}} \quad \text{Energy equivalent to diesel oil consumed (80)}$$

$$\text{Energy}_{\text{natural gas}} \text{ (kWh)} = \frac{\text{natural gas (Nm}^3\text{)} \cdot \text{NCV}_m \text{ (kCal/Nm}^3\text{)}}{860 \text{ (kCal/kWh)}} \quad \text{Energy equivalent to natural gas consumed (78)}$$

$\text{NCV}_m$  = 8,500 kcal/Nm<sup>3</sup> (net calorific value of natural gas)

$\text{NCV}_d$  = 10,000 kcal/kg (net calorific value of diesel oil)

860 = energy conversion factor from kcal to kWh

0,835 = specific weight of diesel oil (kg/l)

NB: the calorific values used for Acea Produzione are the effective ones taken from the gaugings of the natural gas and diesel oil suppliers

### CALCULATION 3

$$\text{efficiency (hydroelectric)} = \frac{\text{Energy}_{\text{hydroelectric}} (\text{MWh}) \cdot 3.6 \cdot 10^9}{[m(\text{kg}) \cdot 9.8(\text{m/s}^2) \cdot h(\text{m})](\text{joule})}$$

Where:

- $3.6 \cdot 10^9$  = water energy conversion factor from MWh to Joules
- $m$  = offtake water for hydroelectric production
- $9.8$  = gravitation acceleration at sea level
- $h$  = height of water drop (free surface reservoir- turbine)
- $\text{Energy}_{\text{hydroelectric}}$  = energy produced in the hydroelectric cycle

### CALCULATION 4

$$\frac{(E_i)}{(E_i + E_t)} \cdot \epsilon_i + \frac{(E_t)}{(E_i + E_t)} \cdot \epsilon_t = \epsilon_{\text{average}}$$

where:

- $E_i$  = total hydroelectricity produced
- $E_t$  = total thermoelectricity produced
- $\epsilon_i$  = hydroelectric efficiency
- $\epsilon_t$  = thermoelectric efficiency
- $\epsilon_{\text{average}}$  = average production efficiency

### CALCULATION 5

$$\frac{(E_i)}{(E_i + E)} \cdot \epsilon_i + \frac{(E)}{(E_i + E)} \cdot \epsilon = \epsilon_{\text{average}}$$

where:

- $E_i$  = total hydroelectricity produced
- $E_t$  = sum of total energy (thermoelectric and thermal) produced
- $E$  = hydroelectric efficiency
- $\epsilon_t$  = efficiency (thermoelectric and thermal)
- $\epsilon_{\text{average}}$  = average production efficiency

### CALCULATION 6

$$\text{recovery efficiency} \left( \frac{\text{kWh}}{\text{kg}} \right) = \frac{\text{Gross electricity produced (kWh)}}{\text{RDF (kg)}}$$

Gross electricity produced (kWh) = gross electricity produced at S. Vittore = (item 12)



### CALCULATION 7

$$\text{electric efficiency (\%)} = \frac{\text{Net electricity produced (kWh)}}{\text{RDF internal energy (kWh)} + \text{Natural gas internal energy (kWh)}}$$

where:

Net electricity produced at S. Vittore (item 12)

$$\text{Natural gas internal energy (kWh)} = \frac{\text{Natural gas (Sm}^3\text{)} \cdot \text{NCV}_n \text{ (kCal/Sm}^3\text{)}}{860 \text{ (kCal/kWh)}}$$

$\text{NCV}_n$  = about 8,500 kCal/Sm<sup>3</sup> (net calorific value of natural gas)  
 $\frac{860}{860}$  = energy conversion factor from kcal to kWh

$$\text{RDF internal energy (kWh)} = \frac{\text{RDF (kg)} \cdot \text{NCV}_w \text{ (kCal/kg)}}{860 \text{ (Kcal/kWh)}}$$

$\text{NCV}_w$  = 3,583 kCal/kg (15,000 kJ/kg) – RDF average net calorific value  
 $\frac{860}{860}$  = energy conversion factor from kCal to kWh

### CALCULATION 8

$$\text{recovery efficiency} = \left( \frac{\text{kWh}}{\text{kg}} \right) = \frac{\text{Gross electricity produced (kWh) at Terni}}{\text{pulper (kg)}}$$

Gross<sub>electricity</sub> produced (kWh) at Terni = Gross electricity produced = (item 13)

### CALCULATION 9

$$\text{electric efficiency (\%)} = \frac{\text{Net electricity produced (kWh)}}{\text{RDF internal energy (kWh)} + \text{Natural gas internal energy (kWh)}}$$

where:

Net electricity produced at Terni (item 13)

$$\text{Natural gas internal energy (kWh)} = \frac{\text{Natural gas (Sm}^3\text{)} \cdot \text{NCV (kCal/Sm}^3\text{)}}{860 \text{ (kCal/kWh)}}$$

$\text{NCV}_n$  = about 8,500 kCal/Sm<sup>3</sup> (net calorific value of natural gas)  
 $\frac{860}{860}$  = energy conversion factor from kCal to kWh

$$\text{Pulper internal energy (kWh)} = \frac{\text{pulper (kg)} \cdot \text{NCV}_p \text{ (kCal/kg)}}{860 \text{ (kCal/kWh)}}$$

$\text{NCV}_p$  = 3,635 kCal/kg (15,216 kJ/kg) - Pulper average net calorific value  
 $\frac{860}{860}$  = energy conversion factor from kCal to kWh

# EXPLANATORY NOTES TO THE *ENVIRONMENTAL ACCOUNTS*

The figures presented in the *Environmental Accounts* have been produced and audited by the pertinent divisions.

Responsibility for the correct formation of the figures has been maintained within the individual production units, pending the implementation of a standardized Environmental Management System, capable of coding the procedures for obtaining a regular flow of numeric information. Before final acceptance, however, the official figures have been subject to a validation process which anticipated four control procedures:

1. comparison with the historical data in order to highlight and justify any significant discrepancies;

2. repetition at least twice of the acquisition process;
3. feedback to the divisions responsible for the final validation of the figures;
4. sample audit carried out by an auditing firm.

The figures have been divided up into three categories:

- estimated;
- calculated;
- measured.

In the event of estimated data, the greatest of attention was paid to checking the reasonableness of the underlying criteria used, with the aim of resorting as little as possible, in the future, to this form of measurement of the

environmental parameters.

When the figures are the result of calculation, the algorithm used has been concisely specified in order to permit the full comprehension of the mathematical result.

When, lastly, the data has been measured, an estimate of the uncertainty to be associated with the number is provided.

# ADDITIONAL INFORMATION ON FIGURES PROVIDED IN THE ENVIRONMENTAL ACCOUNTS

ENERGY SECTOR PRODUCTS	
Item No	explanation – comment
1	Total gross energy produced by the Group. This figure is calculated.
2	Electricity produced net of losses due to just the production phase. This figure is calculated.
3=4+5	Total electricity produced by the Acea Produzione plants, gross of losses. It includes thermoelectric and hydroelectric energy. Includes hydroelectric and thermoelectric energy. The figure is measured with uncertainty of less than $\pm 0.5\%$ .
6=7+8+9	Electricity losses attributable to just the production phase of the Acea Production plants. Includes: internal consumption (thermo and hydro) and initial transformation losses. The figure is measured with uncertainty of less than $\pm 0.5\%$ .
10	Electricity produced by the Acea Produzione plants, net of losses. This figure is calculated.
11 = 12+13	Electricity produced by the waste to energy plants: San Vittore del Lazio plant and Terni plant belonging to A.R.I.A. Note that the fuel used by the two plants (RDF- Refuse derived fuel - for San Vittore and industry pulper for the Terni plant) comprises both biodegradable organic material, therefore neutral with regard to the CO <sub>2</sub> balance, and non-biodegradable organic substances (plastic, resins. etc.). In 2014 the renewable share for San Vittore was equal to 50%, the Terni share equal to 41%.
14	Internal consumption of the two waste to energy plants at San Vittore and Terni + transformation losses at San Vittore. The figure is measured with uncertainty of less than $\pm 0.5\%$ .
15	Electricity produced by the two waste to energy plants at San Vittore del Lazio and Terni, net of internal consumption and transformation losses. This figure is calculated.
16	Gross energy produced by photovoltaic plants. The figure is measured with uncertainty of less than $\pm 0.5\%$ .
17	Total losses in photovoltaic generation phase, due above all else to the Joule effect (dissipation with heating) in the equipment. Estimated figure.
18	Net photovoltaic energy made available by the generation plants. The figure is calculated.
19	Thermal energy produced at the Tor di Valle co-generation plant, gross of losses. The item is measured with uncertainty of $\pm 2\%$ in correspondence with the delivery pipes of the boilers. The thermal energy is produced by the co-generation plant, comprising a turbogas unit and superheated water regeneration generator powered by the hot exhaust fumes of the turbogas units, with the possibility of integration via Galleri-type auxiliary boilers.
20	Thermal energy losses of the district heating system, due to: heat dispersion, losses on the network, technical emissions due to maintenance work, thermal recoveries of the heat accumulation systems. The item is calculated as the difference between the thermal energy produced and that effectively supplied to the customers (billed).
21	Net thermal energy supplied to end customers. The item, calculated, was obtained from the reading of the billed consumption.
22	Electricity supplied by Acea Produzione to Acea Energy SpA involving infra-Group exchange. The item is marginal due to the decision made by the Acea Group to sell the electricity produced on the electricity exchange or by means of bilateral agreements.
23	Net electricity acquired on the market by: — Sole Buyer for 2.852,9 GWh — Imports for 432,1 GWh — Market for 7.666,6 GWh. The item is measured with uncertainty of $\pm 0.5\%$ .
24	Energy requested on the Rome and Formello distribution network by all the connected customers (free + protected markets). This item is estimated.
25	Electricity losses which take place during the distribution and transmission phase. These are attributable to: transformation and transport losses, fraud and erroneous measurements. This item is estimated.
26	Internal uses of electricity for the performance of distribution activities. The item is estimated.
27	Electricity transferred to third parties. This involves exchanges of energy between distribution companies. The item is measured with uncertainty of $\pm 0.5\%$ .
28	Total net electricity conveyed to customers in free market connected to the Rome and Formello electricity distribution network. This includes both the portion of electricity sold by Acea Energia and that sold by other operators active on the free market. The item is measured with uncertainty of $\pm 5\%$ according to the CEI 13-4 standard.
29	Net electricity sold to customers in enhanced protection market. The downwards trend is the consequence of the progressive changeover of protected customers to the deregulated market, in other words it is the direct consequence of the process for de-regulating the electricity market underway in Italy since 1999 (Italian Legislative Decree No. 79/99). The item is estimated on the basis of the readings of billed consumption.
30	Net electricity sold by Acea on the free market at Italian national level. Includes the sold on Rome and Formello (item 28). Total sales on the free and the protected market is obtained by summing the items (29) and (30). The figure is estimated.
31	Lighting flux supplied by the public lighting system in Rome. The item, calculated, represents the product between the number of lamps installed and the related value of "rated" lighting flux. As a result of the overestimation introduced by: 1. abatement of efficiency due to the ageing of the lamps; 2. shutdown due to faults; 3. shutdown due to maintenance; it is believed that a more realistic supplied lighting flux figure equates to the item provided, decreased by 20%.
32	Total number of gaugings/checks carried out benefiting the energy area. The item is calculated as the sum of the individual calculations made by the pertinent laboratories.

## ENVIRONMENT SECTOR PRODUCTS

Item No	explanation – comment
33	Incoming total waste. These are the amounts arriving at SAO plant: Municipal solid waste, organic fraction, green, non-hazardous industrial waste. This figure is calculated.
34	Landfilled waste, either directly or after processing. The figure is calculated.
35	Recovered waste - not sent to landfills. This is glass, paper and paperboard, iron and plastic. In 2014 the figure includes 2,983 tons of waste to energy residues, used for covering the landfill at the end of the day. The figure is calculated.
36	Compost produced at the SAO plant. The data is measured with an uncertainty of $\pm 1\%$ .
37	Reduction for stabilisation. Represents the mass loss caused by such as natural transformation of matter and evaporation water loss. This figure is calculated.
38	Incoming sludges. This is the amount of incoming sludges at the Acquaser plants: Kyklos, Solemme and Samace. The item is measured with uncertainty of $\pm 1\%$ .
39	Incoming green. This is the amount of green from the parks, forests and other areas arriving at Acquaser plants: Kyklos, Solemme and Samace. The data is measured with an uncertainty of $\pm 1\%$ .
40	Organic fraction from incoming waste collection. It represents the total quantity of organic fraction resulting from recycling collection. The item is measured with uncertainty of $\pm 1\%$ .
41	High Quality Compost. It represents the amount of high quality compost produced at the Acquaser plants, Kyklos, Solemme and Samace. The item is measured with uncertainty of $\pm 1\%$ .
42	Non-compostable material to disposal. It is the non-biodegradable matter, as plastic, that is sent to disposal as unfit to be composted. The item is measured with uncertainty of $\pm 1\%$ .
43	Total analytical controls. The item represents the total of analytical determinations made at the following plants: SAO, Kyklos and Solemme. The item is calculated.

## WATER SECTOR PRODUCTS

Item No	explanation – comment
44	Total drinking water withdrawn from the environment or from other systems. This is the sum of the water withdrawn by the Group companies: Acea Ato 2 (Rome), Acea Ato 5 (Frosinone); Gori (Sarnese Vesuviano); Acque (Pisa); Publicacqua (Florence); Acquedotto del Fiora (Grosseto); Umbra Acque (Umbria). The item is calculated.
45	Total drinking water delivered to the distribution networks of the companies listed under item 44 net of losses due to the water supply at sources. The figure is estimated.
46	Total drinking water supplied to the respective customers of the companies listed in item 44. The figure is estimated.
47	Total drinking water withdrawn from the sources except the high drains, by the company Acea Ato 2 and introduced into the aqueduct system of the Rome historic network. It includes the water withdrawn from Lake Bracciano, treated. The item is measured with uncertainty of $\pm 3\%$ .
48	Total drinking water sold to Municipalities located along the route of the aqueducts. The item is measured and is affected by a systematic error estimated as around - 5%.
49	Drinking water introduced onto non-drinking water network. These are events which take place in the case of maintenance or extraordinary measures which make the dedicated non-drinking water resource insufficient. The item is estimated.
50	Drinking water returned to the environment / technical operating volumes with reference to the Rome “historic” distribution network (Rome + Fiumicino). This figure is calculated.
51	Total drinking water transported to the Rome “historic” distribution network (Rome + Fiumicino), net of the losses due to the water supply at sources. The item is estimated.
52	Total drinking water supplied in the Municipality of Rome on the “historic” network (Rome + Fiumicino). The figure represents estimated consumption due to the entire territory served. It includes the consumption due to users, drinking fountains, pipe washing activities, etc. The figure 2014, according to the AEEGSI Resolution no. 5/2014, includes the “water delivered to other aqueducts (A08)”. The item is estimated.
53	Overall distribution losses – Rome “historic” network (Rome and Fiumicino). This is the parameter A17 of the Italian MD No. 99/97 defined as the quantity of water lost during distribution: $A17 = A9 - (A10 + A11 + A12)$ = overall losses in distribution, where, for 2014 figures: Parameter A9 of MD 99/97 – total volume of water introduced onto the network. According to the AEEGSI Resolution no. 5/2014, includes the “water delivered to other aqueducts (A08)”; Parameter A10 of MD 99/97 – gauged volume of water supplied to the end user, including, as per the above Resolution, the “water delivered to other aqueducts (A08)”; Parameter A11 of MD 99/97 – consumed uses, billed but not measured; Parameter A12 of MD 99/97 – as established by the aforementioned AEEGSI resolution, the parameter is identified as the “not measured and not invoiced volume” of the used water (authorized) , estimated as $0.005 \cdot A10$ ; Parameter A14 of MD 99/97 – water lost apparently for not authorized/not billed consumption, totaling -as estimated by the AEEGSI- $0.002 \cdot A10$ ; Parameter A16 of MD 99/97 –water lost apparently for measurement errors due to utility meters installed, totaling -as estimated by the AEEGSI- $0,04 \cdot A10$ ; The item is estimated.

## WATER SECTOR PRODUCTS

Item No	explanation – comment
54	Effective distribution losses – defined by the AEEGSI as A09-A10-A11-A12-A14-A16. The figure is estimated.
55	Total non-drinking water taken from the environment, gross of losses. This item is estimated.
56	Total non-drinking water supplied to Rome and Fiumicino. The item, calculated, corresponds with total water billed.
57	Total non-drinking water supplied to Municipalities other than the Municipality of Rome and Fiumicino. This is a small estimated quantity.
58	Total drinking water withdrawn from the sources except the high drains, by the company Acea Ato 2 and introduced into the Central Lazio Optimum Area of Operations ATO 2 (Rome “historic” network + Municipalities acquired) aqueduct system. The item is measured with uncertainty of $\pm 3\%$ .
59	Total drinking water sold to other aqueduct systems. The item is measured and is affected by a systematic error estimated as around - 5%.
60	Drinking water introduced onto non-drinking water network. These are events which take place in the case of maintenance or extraordinary measures which make the dedicated non-drinking water resource insufficient. This item is estimated
61	Drinking water returned to the environment / technical operating volumes with reference to the Ato 2 distribution network (Rome and Fiumicino + municipalities acquired as of 31 December 2014). This figure is calculated.
62	Total drinking water transported to the Ato 2 distribution network (Rome and Fiumicino + municipalities acquired as of 31 December 2014). 2014 figure includes the water given to other aqueduct systems, according to AEEGSI Resolution no 5/2014. The item is gauged with uncertainty of $\pm 3\%$ . This item was estimated for 2014.
63	Total drinking water supplied (i.e. gauged at the metres, where present) to the customers connected to the Ato 2 network (Rome and Fiumicino + municipalities acquired as of 31 December 2014). The figure represents estimated consumption due to the entire territory served. It includes, from 2014, “water supplied to other aqueduct systems”, according to AEEGSI Resolution no 5/2014.
64	Overall distribution losses – Ato 2 network (Rome and Fiumicino + municipalities acquired as of 31 December 2014). This is the parameter A17 of the Italian MD No. 99/97 defined as the quantity of water lost during distribution. See item 53 for details.
65	Effective distribution losses - Ato 2 network (Rome and Fiumicino + municipalities acquired as of 31 December 2014). This is the sum (A15+A13) of the Italian MD No. 99/97. See item 54.
66, 67, 68	Respectively: quantity of water withdrawn from the environment, introduced onto the distribution network and supplied to its customers by Acea Ato 5 (Frosinone).
69	Overall distribution losses of Acea Ato 5 (Frosinone). This is the parameter A17 of the Italian MD No. 99/97 defined as the quantity of water lost during distribution. See item 53 for details.
70	Effective distribution losses of Acea Ato 5 (Frosinone). This is (A15+A13) of the Italian MD No. 99/97. See item 54.
71	Total waste water conveyed to main treatment plants and treated, concerning: Acea Ato 2, Acea Ato 5, Gori, Umbra Acque, Publiacqua, Acque, Acquedotto del Fiora. This figure is calculated.
72	Total waste water conveyed to the main treatment plants of Acea Ato 2 and treated. This figure is calculated
73	Total waste water conveyed to the treatment plants of Acea Ato 2 and treated, including the quantities treated in the minor plants of the Municipality of Rome and in those outside the Municipality of Rome. This figure is calculated.
74	Total waste water conveyed to the treatment plants of Acea Ato 5 and treated. The figure is calculated.
75	Overall number of analytical controls carried out on drinking water by the Acea Group. The item includes the analysis carried out by Laboratorio and the analysis carried out independently by the companies. This figure is calculated.
76	Overall number of analytical controls carried out on waste water by the Acea Group. The item includes the analysis carried out by Laboratorio and the analysis carried out independently by the companies. This figure is calculated.

## RESOURCES USED – ENERGY SECTOR

Item No	explanation – comment
77 = 78 + 79	Total quantity of natural gas used for the generation of electricity and heat at the Acea Produzione and A.R.I.A. production plants. The item, expressed in normal cubic metres (volume at 0°C and 1 Atm), is measured with uncertainty of $\pm 0.5\%$ . The figure is estimated.
80	Total quantity of gas oil used for the generation of electricity at the Acea Produzione Montemartini (turbogas) plant. This item is measured with uncertainty of $\pm 2\%$ .
81	Quantity of RDF (Refuse derived fuel) sent to the waste to energy process at the San Vittore plant in Lazio. The item is measured with uncertainty of $\pm 1\%$ .
82	Quantity of pulper sent to the waste to energy process at the Terni plant. The item is measured with uncertainty of $\pm 1\%$ .
83	Total cooling water in the thermoelectric plants. During 2014, as the combined cycle did not produce energy, it was not necessary to use the cooling water for the Tor di Valle plant. This item is estimated.
84	Total water taken from surface resources and from aqueducts (Salisano hydroelectric plant) for the production of hydroelectricity. This figure is calculated.

## RESOURCES USED – ENERGY SECTOR

Item No	explanation – comment
85	Total quantity of water used in the industrial processes. The various contributions were due to: - Replenishment of losses on the district heating network. This is drinking water; - Various uses in the San Vittore and Terni waste to energy plants. This is water from aqueduct and from wells. This figure is calculated.
86	Quantity of drinking water used by the companies included in the energy sector for civil/sanitary use. This is represented by the uses of: Acea Produzione, Acea Distribuzione and 50% of the Parent Company consumptions. The item, calculated, refers to billed consumption.
87	This represents the total quantity of new dielectric mineral oil introduced into the distribution substations (only from 2013 the Acea Distribuzione data include, in addition to the primary substations, even secondary ones). From 2014 the quantity of oil present in Petersen coils installed in some primary substations is included: about 225 tons in 256 Petersen systems. The replenishments are net of any disposals/replacements. This item is estimated. The total amount of new dielectric mineral oil entered into the production circuit (transformers, capacitors, storage depots etc.) includes both the figure for Acea Distribuzione and Acea Produzione. This item is estimated.
88	The item represents the total quantity of gaseous insulator ( $SF_6$ ) in the systems of Acea Distribuzione. The item is estimated. The total quantity of new gaseous insulator ( $SF_6$ ) added to the production circuit represents the amount of replenishments and substitutions of Acea Distribuzione in primary substations. This item is estimated.
89	Quantity of refrigerating fluids used during maintenance of air-conditioning equipment, when the old gas is recovered and replaced with new gas. Note that the R22 gas, still present as refrigerating fluid, can no longer be purchased (European Regulation No. 2037/2000 concerning hazardous substances for the ozone stratosphere) but is still recycled (until 31 December 2014); the replenishments are made using a different gas, R422 D. The item is calculated allocating the total gases purveyed by the Parent Company in equal parts (50%) to the energy area and the water area. This item coincides with item 109.
90	Total chemicals used in the electricity and heat generation process at the plants of Acea Produzione and A.R.I.A. (waste to energy plants). In 2014 the activated carbon consumed in waste to energy plants has also been considered. This figure is calculated.
91	Amount of oils and lubricating greases used by Acea Produzione. The data is measured with an uncertainty of $\pm 0.5\%$ .
92	This item coincides with item 25.
93	Coincides with the difference between the items 1 and 2.
94	Electricity consumed by the processes not directly linked with the production phases (offices). The item is calculated to an extent equating to 50% of the overall electricity consumed by the Parent Company. The remaining portion of 50% is assigned to the water sector.
95	Other uses of electricity in the energy sector. This figure is calculated.
96	Total electricity consumed by the product systems included in the energy sector. This figure is calculated.
97	Total electricity consumed for public lighting in the Municipality of Rome. This figure is calculated. The figure is calculated on the basis of the plants in operation in the year. At the time of the last update it was considered appropriate to adjust the consumption for 2013 with respect to what published last year, while the figure for 2012 is not viable because overly approximated. The figure is estimated.

## RESOURCES USED – ENVIRONMENT

Item No	explanation – comment
<b>SAO</b>	
98	Quantity of water consumed at the plant SAO. It should be noted that the resource comes in part from the marquises (rain water) and partly from the riverbed (river water). The figure is estimated.
99	Total chemicals used at the plant SAO. The figure is calculated.
100	Electricity consumed in SAO. The 2014 big reduction depends from the revamping processing going on from April 2014. The data is measured with an uncertainty of $\pm 1\%$ .
101	Total amount of gas oil consumed at the plant of SAO. The data is measured with an uncertainty of $\pm 2\%$ .
101A	Amount of water used for domestic purposes at the plant of Orvieto (SAO). The figure is estimated.
<b>Production of compost</b>	
102	Quantity of water consumed at the plants Kyklos and Solemme. The figure is close to zero as at the two plants, almost all of the water used comes from recycling, after purification with reverse osmosis technology. Water consumption not from recycling are negligible.
103	Total chemicals used at the plants Kyklos and Solemme. The figure is calculated.
104	Electricity consumed at Kyklos and Solemme. The data is measured with an uncertainty of $\pm 1\%$ .
105	The total amount of fuels consumed at Kyklos and Solemme. The data is measured with an uncertainty of $\pm 2\%$ .

## RESOURCES USED – WATER SECTOR

Item No	explanation – comment
106	The figure represents the sum of the consumption of reagents for drinking water and disinfection of the water in the water companies Acea Ato 2 and Acea Ato 5. In detail this includes: sodium hypochlorite - used as a disinfectant upon the request of the Health Authorities -, aluminium polychloride, caustic soda and ozone. This figure is calculated.
107	Total quantity of chemical reagents used by LaboratoRI for the performance of its duties, in other words the performance of analytical checks benefiting Acea Group companies. The item is measured.
108	Total volume of pure gas for analyses used by LaboratoRI. The item is measured.
109	Quantity of refrigerating fluids used during maintenance of air-conditioning equipment, when the old gas is recovered and replaced with new gas. The item is calculated allocating the total gases purveyed by the Parent Company in equal parts (50%) to the energy area and the water area. This item coincides with item 89.
110	Electricity used for the drinking and non-drinking water pumping plants. The item is measured with uncertainty of $\pm 1\%$ .
111	Electricity consumed by the processes not directly linked with the production phases (offices). The figure, equal to item 94, is calculated to an extent equating to 50% of the total electricity consumed by the Parent Company.
112	Electricity used by LaboratoRI. It includes all the energy relating to the various fields of activities of LaboratoRI, not only the laboratory analysis activities. This item is estimated.
113	Total electricity consumed in the water sector. This figure is calculated.
114	Quantity of drinking water used by the companies Acea Ato 2 e Acea Ato 5 for civil/sanitary use. The item, calculated, refers to billed consumption.
115	Quantity of water consumed for civil/sanitary uses within the installations not directly linked with the production phases (offices). The item is calculated to an extent equating to 50% of the overall water consumed by the Parent Company.
116	The figure is calculates as the sum of items 114 and 115.
117	Total quantity of chemicals used in the waste water treatment process. This figure is calculated.
118	Total quantity of lubricant oil and grease used for the apparatus of the water sector (pumps, centrifuges, engines, etc). This figure is calculated.
119	Electricity used for the running of the waste water treatment plants and for the running of the sewage network. The item is measured with uncertainty of $\pm 1\%$ .

## FUELS USED BY THE GROUP (VEHICLE FLEET AND CONDITIONING)

Item No	explanation – comment
120	Total quantity of petrol used for the Acea Group's vehicle pool. A density value of 0.735 kg/l was used to convert from volume (litres) to mass (kg). This item is measured with uncertainty of $\pm 0.5\%$ .
121	Total quantity of diesel used by Acea Group's vehicle fleet. A density value of 0.835 kg/l was used to convert from volume (litres) to mass (kg). This item is measured with uncertainty of $\pm 0.5\%$ .
122	Total quantity of gas oil used to heat Acea and Acea Ato 2 workplaces and to power generators. A density value of 0.835 kg/l was used to convert from volume (litres) to mass (kg). This item is measured with uncertainty of $\pm 0.5\%$ .
123	Total quantity of natural gas used for heating working environments. In November 2013 (impacting on winter season) the boiler of the piazzale Ostiense has been replaced with a condensing boiler that, thanks to its efficiency, contributed to the reduction of fuel consumption. This item is measured with uncertainty of $\pm 0.5\%$ .
124	Total quantity of LPG (liquid petroleum gas) used for heating working environments. A density value of 0.550 kg/l was used to convert from volume (litres) to mass (kg). This item is measured with uncertainty of $\pm 0.5\%$ .

## SPILLS AND WASTE – ENERGY SECTOR

Item No	explanation – comment
125	Total quantity of carbon dioxide emitted into the atmosphere as a consequence of the generation of thermoelectric energy from fossil fuels and from the waste to energy treatment of RDF and pulper. This is a “physiological” product deriving from combustion. The item is calculated as the sum of the items 126 and 127. The item includes the CO <sub>2</sub> equivalent estimated on the basis of the SF <sub>6</sub> replenishments, (item 126B) considering that 1 t of such gas has a warming potential (WP) equal to 22.800 times the CO <sub>2</sub> WP. The item is estimated.
126	Quantity of carbon dioxide emitted into the atmosphere by the Acea Produzione plants. This item is calculated according to current legislation.
127	Quantity of carbon dioxide emitted into the atmosphere by the A.R.I.A. waste to energy plants. The figure is calculated according to the existing regulations.
128	Total quantity of nitric oxides (NO + NO <sub>2</sub> ) emitted into the atmosphere as a consequence of the generation of thermoelectric energy from fossil fuels and from the waste to energy treatment of RDF and pulper. Their presence in trace form in the emissions is due to the secondary undesirable reactions which take place at a high temperature between the nitrogen and the oxygen in the air. This figure is calculated.
129	Quantity of nitric oxides (NO + NO <sub>2</sub> ) emitted into the atmosphere as a consequence of the generation of thermoelectric energy from fossil fuels in the Acea Produzione plants. This figure is calculated.
130	Quantity of nitric oxides (NO + NO <sub>2</sub> ) emitted into the atmosphere by the A.R.I.A. waste-to-energy plants. This figure is calculated.
131	Total quantity of carbon monoxide (CO) emitted into the atmosphere as a consequence of the generation of thermoelectric energy from fossil fuels and waste to energy process. The presence of this pollutant in the emissions is due to incomplete combustion reactions and represents a symptom of decline in the combustion reaction efficiency. This figure is calculated.
132	Total quantity of carbon monoxide (CO) emitted into the atmosphere as a consequence of the generation of thermoelectric energy from fossil fuels in the Acea Produzione plants. This figure is calculated.
133	Quantity of carbon monoxide (CO) emitted into the atmosphere by the A.R.I.A. waste-to-energy plants. This figure is calculated.
134	Total quantity of sulphur dioxide (SO <sub>2</sub> ) emitted into the atmosphere as a consequence of the generation of thermoelectric energy from fossil fuels and from the waste to energy treatment of RDF and pulper. The use of natural gas and gas oil with a low sulphur content in the plants made it possible to sharply contain this type of emission. This figure is calculated.
135	Quantity of sulphur dioxide (SO <sub>2</sub> ) emitted into the atmosphere as a consequence of the generation of thermoelectric energy from fossil fuels in the Acea Produzione plants. This figure is calculated.
136	Quantity of sulphur dioxide (SO <sub>2</sub> ) emitted into the atmosphere by the A.R.I.A. waste to energy plants. This figure is calculated.
137	Total quantity of dust (microscopic particles with an average aerodynamic diameter equal to or less than 10 thousandths of a millimetre) emitted into the air as a consequence of the generation of thermoelectric energy using fossil fuels and from the waste to energy treatment of RDF and pulper. This mainly involves unburnt amorphous carbon, with traces of other compounds of a mixed composition obtained as a by-product of the combustion when this does not take place completely. This figure is calculated.
138	Quantity of dust emitted into the atmosphere as a consequence of the generation of thermoelectric energy from fossil fuels in the Acea Produzione plants. This figure is calculated.
139	Quantity of dust emitted into the atmosphere by the A.R.I.A. waste-to-energy plants. This figure is calculated.
140	Total quantity of waste water treated, deriving from thermoelectric production activities. This item is gauged with uncertainty of ± 2%.
141	This item coincides with item 83.
142	Total quantity of hazardous waste (pursuant to Italian Legislative Decree No. 152/06) disposed of by Acea Group companies with the exclusion of the waste to energy sector. The item is measured with uncertainty of ± 2%.
143	Hazardous waste (pursuant to Italian Legislative Decree No. 152/06) disposed of from the waste to energy sector. This basically involves light ash and slag deriving from incineration. The item is measured with uncertainty of ± 2%.
144	Total quantity of non-hazardous waste (pursuant to Italian Legislative Decree 152/06) disposed of by the Acea Group companies with the exclusion of the waste to energy sector. The item is measured with uncertainty of ± 2%.
145	Non-hazardous waste (pursuant to Italian Legislative Decree No. 152/06) disposed of from the waste to energy sector. This is essentially heavy ash and slag, deriving from incineration. The item is measured with uncertainty of ± 2%.

## SPILLS AND WASTE – ENVIRONMENT

Item No	explanation – comment
146	Hazardous waste (Italian Legislative Decree No. 152/06) disposed from the Kyklos and Solemme plants. The figure is calculated.
147	Non-hazardous waste (Italian Legislative Decree No. 152/06) disposed from the Kyklos and Solemme plants. The figure is calculated.
148	Hazardous waste (Italian Legislative Decree No. 152/06) disposed of by the plant of SAO. The data is measured with an uncertainty of ± 2%.
149	Leachate derived from activities at the composting plants and at SAO. The data is measured with an uncertainty of ± 2%.
150, 151, 152, 153	Among the emissions in Environment, the following are described: dust, Volatile Organic Compounds, ammonia, volatile inorganic acids. The data refer only to the plant of Kyklos. The item 152 (ammonia) includes Solemme. The item is calculated.



## SPILLS AND WASTE – WATER SECTOR

Item No	explanation – comment
154	Total quantity of sludge disposed of by Acea Ato 2 and Acea Ato 5. This sludge is non-hazardous waste. The item is measured with uncertainty of $\pm 2\%$ .
155	Total quantity of sludge disposed of by Acea Ato 2. The item is measured with uncertainty of $\pm 2\%$ .
156	Total quantity of sludge disposed of by Acea Ato 5. The item is measured with uncertainty of $\pm 2\%$ .
157	Total quantity of sand and sediment disposed of by Acea Ato 2 and Acea Ato 5. The item is measured with uncertainty of $\pm 2\%$ .
158	Total quantity of sand and sediment disposed of by Acea Ato 2. The item is measured with uncertainty of $\pm 2\%$ .
159	Total quantity of sand and sediment disposed of by Acea Ato 5. The item is measured with uncertainty of $\pm 2\%$ .
160	Total quantity of hazardous waste (pursuant to Italian Legislative Decree No. 152/06) disposed of by Acea Ato 2, Laboratori and Acea Ato 5 plus a portion produced by the Parent Company ascribed in equal parts to the two areas of activities, energy and water. The figure is calculated.
161	Quantity of hazardous waste (pursuant to Italian Legislative Decree No. 152/06) disposed of by Acea Ato 2 and Laboratori. The item is measured with uncertainty of $\pm 2\%$ .
162	Quantity of hazardous waste (pursuant to Italian Legislative Decree No. 152/06) disposed of by Acea Ato 5. The item is measured with uncertainty of $\pm 2\%$ .
163	Quantity of hazardous waste (pursuant to Italian Legislative Decree No. 152/06) disposed of by the Parent Company. The same amount has been attributed to the Energy Area.
164	Total quantity of non-hazardous waste (pursuant to Italian Legislative Decree 152/06) disposed of by Acea Ato 2, Laboratori and Acea Ato 5 plus a portion produced by the Parent Company ascribed in equal parts to the two areas of activities, energy and water. The item is calculated.
165	Total quantity of non-hazardous waste (pursuant to Italian Legislative Decree 152/06) disposed of by Acea Ato 2 and Laboratori. The item is calculated.
166	Total quantity of non-hazardous waste (pursuant to Italian Legislative Decree 152/06) disposed of by Acea Ato 5. The data is estimated.
167	Quantity of non-hazardous waste (pursuant to Italian Legislative Decree 152/06) disposed of by the Parent Company and ascribed to the water area. The same amount has been attributed to the Energy Area.
168	Total quantity of aggregates (non-hazardous waste - pursuant to Italian Legislative Decree 152/06) disposed of by the water companies Acea Ato 2 and Acea Ato 5. The item is calculated.

## ACEA GROUP SPILLS AND WASTE - EMISSIONS FROM VEHICLES

Item No	explanation – comment
169	Total quantity of carbon dioxide emitted by the Acea Group vehicle fleet. The item was calculated using Sinanet emission factors ( <a href="http://www.sinanet.isprambiente.it">www.sinanet.isprambiente.it</a> ).
170	Total quantity of nitric oxides emitted by the Acea Group vehicle fleet. The item was calculated using Sinanet emission factors ( <a href="http://www.sinanet.isprambiente.it">www.sinanet.isprambiente.it</a> ).
171	Total quantity of carbon monoxide emitted by the Acea Group vehicle fleet. The item was calculated using Sinanet emission factors ( <a href="http://www.sinanet.isprambiente.it">www.sinanet.isprambiente.it</a> ).
172	Sulphur dioxide emissions by vehicles were not calculated, as they were extremely small amounts deriving from combustion of modest quantities of sulphur found in latest-generation fuels.
173	Total quantity of carbon dioxide emitted by the air-conditioning systems in the work environments. This item is calculated under the assumption that each toe of fuel used creates 3 tons of CO <sub>2</sub> .

# 2014

## ACEA SUSTAINABILITY REPORT

### **ACEA SPA**

#### **Registered office**

Piazzale Ostiense 2 – 00154 Rome

#### **Share capital**

Euro 1.098.898.884 fully paid

#### **Fiscal Code, VAT number and Registration in the Rome Companies' Register**

05394801004

**Rome REA** 882486

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