



AXIS	CATEGORY
Energy Efficiency	Resilience of electricity distribution Infrastructure
Short Description	
Investments in digital technologies to improve the management and increase the efficiency of the electric grid	

4. Increased resilience in the electricity distribution network thanks to development, modernisation, connectivity and telematic control interventions



In order to increase the resilience and efficiency of the electricity distribution network, Areti, the company within the Acea Group responsible for its management, has put into place different interventions that cover maintenance, development and physical modernisation of the network as well as connectivity and telematic control of the infrastructures.

Among the main projects we find:

- ▶ Maintenance and development interventions to increase the resilience of the electric system, which in turn imply the reduction of failures – especially the reduction of the intervention risk index – as well as the better adaptation capacity of the network to critical factors such as flooding and heat waves;
- ▶ Planning for the realisation of plants and the decommissioning of air links and fluid oil cables in the operating high voltage network thanks to a coordinated and synergistic action between the high voltage transmission and distribution networks in the Rome area. This project contributes to the safeguard of the territory and to the environmental impact reduction in protected natural areas;
- ▶ Digitalisation, connectivity and telematic control processes for the network and infrastructures, including broadband cabling for all Primary Substations and a segment of relevant Secondary Substations, to boost observability of both the low/medium voltage networks and infrastructures. Moreover, this project enables remote interventions, optimising the underlying service and reducing the interventions' timing when failures occur.

PROJECT STATUS: ongoing

LOCATION: Latium, Italy

Green Bond Allocation

ALLOCATION				
TOTAL FINANCED AMOUNT (€ MILLION)	2019	2020	2021	2022
190.71	30.57	52.07	61.09	46.98

Environmental performance indicators

KPI	UoM	2020	2021	2022
Annual % variation of the IRI (intervention Risk Index)= after intervention value/before intervention value)	%	-25	-24	-17
Activation/Upgrade of Secondary Substations automation and telematic control	n.	582	1,454	1,646
Broadband linked Primary Substations / 70 Primary Substations	n./n.	14/70	10/70	6/70
<i>cumulative</i>	<i>n./n.</i>	<i>14/70</i>	<i>24/70</i>	<i>30/70</i>
Number of pylons removed(*)	n.	22	48	49
<i>cumulative</i>	<i>n.</i>	<i>22</i>	<i>70</i>	<i>119</i>
Recovered soil in highly-biodiverse areas (*)	m ²	275	740	980
<i>cumulative</i>	<i>m²</i>	<i>275</i>	<i>1,015</i>	<i>1,995</i>

(*) During the period 2020-2022, 119 HV pylons were removed with a total area recovery of 2,400 m² of which 1,995 m² relating to areas of high biodiversity (Veio Natural Park, Litorale romano Natural Reserve and Decima Malafede Natural Reserve).

