

ALLOCATION & IMPACT REPORT

JANUARY 2024

SECOND RELEASE





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Bond summary and introduction

In 2021 Acea issued its first Green Bond for a total nominal amount of Euro 900 million and net proceeds of roughly Euro 888.2 million¹, divided into two sub-issuances of nominal values Euro 300 million and Euro 600 million respectively, within the Euro Medium Term Notes program, both listed in the Luxembourg Stock Exchange. The two sub-issuances are structured as follows:

ISSUANCE N.1 (ISIN XS2292486771)					
Euro 300 million					
Issue Date	Maturity Date	Net proceeds (€ million)	Annual Coupon	Issue Price	Rating (Fitch/Moody's)
January, 28 th 2021	September, 28 th 2025	299.841	0%	100.177%	BBB+/Baa2

ISSUANCE N.2 (ISIN XS2292487076)					
Euro 600 million					
Issue Date	Maturity Date	Net proceeds (€ million)	Annual Coupon	Issue Price	Rating (Fitch/Moody's)
January, 28 th 2021	July, 28 th 2030	588.372	0.25%	98.292%	BBB+/Baa2

The demand for this first Acea Green Bond exceeded the supplied total amount by more than 7 times and showed remarkable interest from leading green institutional investors demonstrating the strong interest in Acea's credit profile and the effectiveness of the pre-marketing activity. The transaction followed a well-attended one-day roadshow comprising a Global Investor Call and a series of group calls, to provide a credit update and present the new Acea Green Financing Framework.

Corporate profile and its commitments

Acea, founded in 1909, has gradually become a nationwide industrial group, working in the areas of integrated water management, electricity production, distribution and sales and value-added environmental services. The development guidelines are characterized by the consolidation of its leadership position in the water industry and the expansion of the Group's territorial area of interest, which is mainly focused on Central Italy, and of its businesses, which range from energy production from renewable sources to the circular economy and from energy efficiency services and sustainable mobility to gas distribution.

The continuity of the services provided, with a high level of quality and efficiency, a result of the ongoing commitment of Acea's people and its investments in innovation and digitalisation, testify to the Group's resilience and confirm the solidity of its business and the validity of its strategy, with growth and value

¹ Net Proceeds are calculated as the Issue Price net of fees.

creation closely linked to the achievement of sustainability objectives. Acea also pursues its commitment to sustainability through participation in important external initiatives, intended to raise awareness among decision makers and the public on particular socio-environmental issues. Specifically, through these initiatives, Acea is joined by qualified panels of companies in order to support objectives of general interest and to incorporate relevant guidelines and practices into its company culture.

Green finance framework and its categories

The issuance was based on the Acea Green Finance Framework presented in January 2021 to facilitate transparency and to confirm the commitments made by the Company with respect to green bonds and sustainable finance in general.

ISS provided a SPO attesting the alignment of the green financing framework to the Green Bond Principles and Green Loan Principles. The Framework is also intended to be aligned, on a best effort basis and to the current possible extent, to the Proposal for the EU Green Bond Standard.

The net issuance proceeds are used to finance eligible projects according to the Green Finance Framework. All green bond's projects are clustered into four main axes, declined in the Framework itself, that follow most of the 17 United Nations' Sustainable Development Goals (SDGs):

GREEN FINANCE FRAMEWORK AXES			
N.	AXES	RELATED SDG NUMBER*	RELATED SDG
1	WATER MANAGEMENT		Clean water and sanitation
2	ENERGY EFFICIENCY	    	Affordable and clean energy Industry, innovation and infrastructure Sustainable cities and communities Climate Action Life on Land
3	CIRCULAR ECONOMY	     	Clean water and sanitation Affordable and clean energy Industry, innovation and infrastructure Sustainable cities and communities Responsible production and consumption Climate Action
4	GREEN ENERGY	  	Affordable and clean energy Industry, innovation and infrastructure Climate Action

* The projects clustered into the abovementioned axes manifest clear references with respect to the illustrated SDGs, but can be linked also to other SDGs.

The reporting plan for this Green Bond has been structured in two documents:

1. the first Green Bond Allocation & Impact Report has been released on March 2022 with the external review of ISS ESG. The first release covers
 - ▶ all the financial indicators for the period 2019-2020, and
 - ▶ non-financial indicators, if measurable or available, for year 2020.
2. the second release of the Green Bond Allocation & Impact Report covers
 - ▶ all the financial indicators for the period 2019-2022, showing the full allocation of proceeds, and
 - ▶ non-financial indicators, if measurable or available, for 2020-2022.

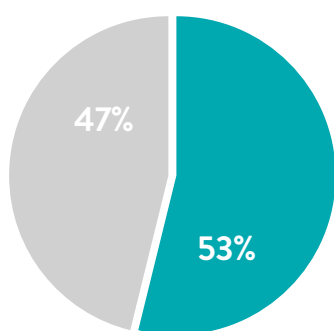
The projects described below follow the rationale entailed in the Green Finance Framework, thus it is possible that in some cases a few projects are merged to show the main objective described in the Framework.

With respect to non-financial indicators and KPIs, the reader will observe that the first year of disclosure is 2020 and not 2019 as for the financial indicators. This is because for the non-financial reporting, 2019 represents the base year from which calculation of non-financial performance is calculated.

Green bond allocation meant for refinancing & new projects

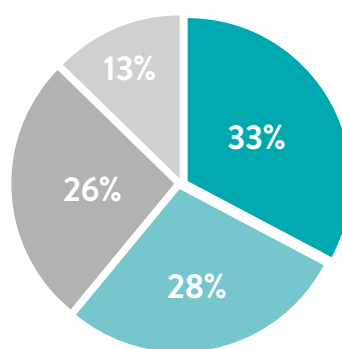
This first Green Bond issuances raised a total amount of net proceeds equal to Euro 888.2 million. Within the perimeter of this report, that includes the allocation for 2019, 2020, 2021 and 2022 equal to Euro 888.2 million (100% of the total amount of net proceeds raised), around 53% of this latter amount has been allocated to refinance existing projects (2019-2020), 47% has been allocated to finance new projects (2021-2022). An extra amount of reported eligible projects, equal to Euro 119.25 million is available for the allocation of next green bonds. This means that refinancing proceeds were covered by the years 2019 and 2020 and, with the full allocation for 2021 and 2022 covered in this report, the refinancing percentage decreased considering a larger allocation base.

**USE OF PROCEEDS
(AT 31/12/2022)**



■ Refinancing existing projects
■ Financing new projects

**FUNDS ALLOCATION
PER AXES**



■ Water Management ■ Circular Economy
■ Energy Efficiency ■ Green Energy

Green finance working group & procedure

Since the issuance of the Green Finance Framework in 2021, Acea has established within its governance system an internal procedure for the establishment of best practices for the whole Group in the sustainable finance world, including processes for designing, planning, executing and monitoring all the sustainable finance activities in the Group. Furthermore, the company formed a Green Finance Working Group (GFWG), a cross-department table led by the Chief Financial Officer (CFO). It includes representatives from Finance, Sustainability Planning & Reporting and Planning & Control holding departments, each covering responsibility according to its own expertise, and works in harmony with representatives of the Group's operating subsidiaries. The GFWG is responsible of creating and updating the abovementioned Green Finance Framework in line with the sustainability objectives of the Group, and dives deep into the eligibility criteria for potential green projects. The initial process for the first selection and evaluation of potential eligible green projects was based on the materiality assessment carried out by the Group for both the Acea's Business and Sustainability Plans, in order to isolate and define the most relevant topics and issues at stake for the whole Group in terms of sustainability objectives and related investments. Today, this process is structured as follows:

- ▶ reviewing and validation of the Eligible Green Projects identified in accordance with the defined Eligible Green Project Categories listed in the Use of Proceeds section of the Green Finance Framework;
- ▶ monitoring of the Eligible Green Project portfolio during the life of the transaction through a tracked and integrated internal periodical report for the whole Group, fed with Enterprise Resource Planning tools and data, regarding financial allocation;
- ▶ if the Sustainability department deems that an eligible project becomes subject to a major ESG controversy, the GFWG will analyse it and may decide to exclude and replace such Eligible Green Project;
- ▶ managing any future update of the Green Financing Framework.

All potential Eligible Green Projects comply with local laws and regulations, including any applicable regulatory environmental requirements, as well as Acea's internal standards for managing ethical and governance risks following the current Code of Ethics and different Management Systems, all publicly available in the Acea website.

For each of the following eight categories:

- ▶ water resource protection;
- ▶ resilience of electricity distribution Infrastructure;
- ▶ clean transportation and infrastructure for Low Carbon Transport;
- ▶ smart meters;
- ▶ wastewater treatment;
- ▶ anaerobic digestion of bio-waste and/or sewage sludge;
- ▶ waste management;
- ▶ renewable energy;

13 synthetic project cards have been set up with the relevant economic and KPI indicators. All the eligibility criteria are defined in the Green Finance Framework, available in the Acea Group website, so that all the projects are consistent to the Group's sustainability objectives and to the most relevant SDGs for the Group's business..

The GFWG is also responsible for managing and reporting the allocation of proceeds in the most transparent way to make up to the specific investors' and stakeholders' expectations and regulatory requirements.

Data sourcing & calculation methodology

For projects within the Water Management, quantitative environmental KPIs, showing the project progress, managed by the process owners, are based on data extracted from management systems, such as water balance systems, plant georeferencing systems, etc., or are calculated ad hoc (e.g. based on the progress schedules of works).

For Energy Efficiency, where quantitative environmental KPIs relate to tons of non-emitted CO₂, data are calculated by process owners from primary data, estimated by the energy managers, applying national reference conversion factors relating to the baseline year of investment plan. In other cases as for the KPI related to IRI (Intervention Risk Index), the indicator is consistent with the calculation methodology of ARERA (Autorità di regolazione per energia reti e ambiente), or data are extracted from software and applications and verified/integrated after the collection of actual data, or obtained from specific meters (e.g. in the case of meters for electricity delivered by installed charging stations).

For the Circular Economy, depending on the specific project and the relevant environmental KPIs, the data managed by the process owners are extracted from systems (as in the case of the waste management/"MUD" declaration - Environmental Declaration Model for sludge) or calculated on the basis of primary data (in the case of the quantification of tons of non-emitted CO₂), or measured by specific meters (e.g. in the case of biomethane fed into the grid) or taken from technical data of plant administration (e.g. for compost produced, waste treated, etc.).

For the Green Energy area, the relevant environmental KPIs are based on extracted data (remote metering), or related to installed power generation, or are calculated on the base of data of gross energy produced from renewable source multiplied by the emission factor from fossil source, of the year of project start-up, for the calculation of avoided emissions.

2019-2022 GREEN BOND FINANCED PROJECTS

Acea has achieved the full allocation of the net proceeds raised until the end of 2022 divided as described in the following axes and project cards.

Total Allocated Amount per Axis (2019-2020-2021-2022)

(€ MILLION)	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL
GREEN FINANCE FRAMEWORK AXES	2019	2020	2021	2022	2019 - 2022
Water Management <i>total categories</i>	61.22	76.21	84.20	106.36	327.99
Energy Efficiency <i>total categories</i>	44.07	67.05	99.57	76.84	287.53
Circular Economy <i>total categories</i>	77.85	48.29	46.69	92.57	265.40
Green Energy <i>total categories</i>	54.91	43.54	36.66	-8.56	126.55
Total	238.05	235.09	267.12	267.21	1,007.47



AXIS	CATEGORY
Water Management	Water Resource Protection
Short Description	
Investment aiming at reducing at least by 20% water losses and installation of gauges for pressure and flow rate management; production and installation of water smart meters on the network	

1. Water losses reduction



The sustainable management of the water resource is one of the distinctive features of the Acea Group. This implies a strong effort over the entire water service value chain and over many other themes. Within those, particular relevance is covered by the containment of water losses, faced by the Group with a shared approach. The interventions that enable the containment of physical and commercial losses are: for physical losses, the districtisation of networks, flow and pressure meters, sensors, remote control; for commercial losses, the installation of ‘smart’ meters at users (for which increasingly effective remote solutions are being studied) and actions to combat abuse. In addition, the interventions lead to an optimisation in the management of infrastructures: the central system acquires quantitative and qualitative data from meters and sensors connected to the sites equipment, and remote manoeuvres can be carried out thanks to remote control.

PROJECT STATUS: ongoing

LOCATION: Latium, Italy

Green Bond Allocation

ALLOCATION				
TOTAL FINANCED AMOUNT (€ MILLION)	2019	2020	2021	2022
249.47	38.28	60.94	66.95	83.30

Environmental performance indicators

KPI	UoM	2020	2021	2022
% Reduction of water volume lost (over 2019)	%	5	13.6	17.2
Flow and pressure meters installed during the year	n.	354	641	455
Reclaimed water network during the year	km	136.2	203.4	204.5
Districted water network during the year	km	7,907	3,687	1,373



AXIS	CATEGORY
Water Management	Water Resource Protection
Short Description	
Water supply system aimed at increasing the resilience of the water supply system	

2. Interventions to increase the water system resilience and the security of water supply



Acea Ato 2 began planning and realising a series of interventions for the medium-long term to increase the resiliency of the Roman and ATO2 related territory drinking water system infrastructure, thus improving the service continuity and the quantitative and qualitative supply security, also under the scope of climate change issues.

The more complex interventions, that require a longer period of time for realisation, contribute to the improvement of the whole water system's reliability and flexibility management and foresee new interventions (such as adducers, new water connections) and infrastructure and technology renewals for major aqueduct systems such as Peschiera-Le Capore, Marcio and big water connection systems.

The medium-term interventions, focused on the realisation/renewal of water purifiers, tanks and adducers, all aim at mitigating and/or eliminating the different challenges in the water supply system for certain areas, especially in the outskirts of Rome, where water sources are the most vulnerable either in prolonged periods of drought or in cases of sustained issues in the local aqueduct systems.

PROJECT STATUS: ongoing

LOCATION: Latium, Italy

Green Bond Allocation

ALLOCATION				
TOTAL FINANCED AMOUNT (€ MILLION)	2019	2020	2021	2022
78.53	22.94	15.27	17.25	23.07

Environmental performance indicators

KPI	UoM	2020	2021	2022
Advancement of the design/authorisation phase of the longer-term interventions “Securing and modernisation of the Peschiera water system” Sub-project “New Marcio water system, lot #1”	%	10	30	80
Advancement of the design/authorisation phase of the longer-term interventions “Securing and modernisation of the Peschiera water system” Sub-project “Doubling Siphon VIII – segment Casa Valeria – exit Galleria Ripoli”	%	0	20	80
Advancement of the design/authorisation phase of the longer-term interventions “Securing and modernisation of the Peschiera water system” Sub-project “Monte Castellone conduct – Colle Sant’Angelo (Valmontone)”	%	0	10	80
Advancement of the design/authorisation phase of the longer-term interventions “Securing and modernisation of the Peschiera water system” Sub-project “Ottavia-Trionfale adducer”	%	0	20	80
Interventions (*) in pipeline/interventions in the ATO2 scope	%	50	40	10
Interventions (*) in process/interventions in the ATO2 scope	%	40	40	70
Interventions (*) completed/interventions in the ATO2 scope	%	10	20	20

(*) All the “interventions” references involve a series of medium-term interventions aimed at the security of the water system supply in the ATO2 territory – central Latium/Rome – in those areas affected by vulnerable water and/or infrastructure availability. The KPIs are to be read together, taking into consideration the number of interventions in pipeline/in process/completed over the total number of the considered perimeter of interventions (10 interventions).





AXIS	CATEGORY
Energy Efficiency	Resilience of electricity distribution Infrastructure
Short Description	
Investments to reduce networks energy losses	

3. Energy efficiency in the electricity distribution networks' management



Acea is deeply focused and committed to the improvement of Rome and Formello electricity distribution networks, both managed by Areti, which, among others, qualify the whole Group as the second ranked national operator in terms of points of delivery. The company has planned voltage change interventions as well as interventions to substitute medium voltage/low voltage transformers with components aimed at reducing losses which will eventually contribute to the diminishing of the technical energy losses on the electric network. Energy efficiency interventions will reduce electricity consumption required to manage processes, resulting in savings which can be converted in both TOE and avoided CO₂ emissions.

PROJECT STATUS: ongoing

LOCATION: Latium, Italy

Green Bond Allocation

ALLOCATION				
TOTAL FINANCED AMOUNT (€ MILLION)	2019	2020	2021	2022
35.60	13.50	6.30	10.80	5.00

Environmental performance indicators

KPI	UoM	2020	2021	2022
Saved electricity/Distributed electricity	MWh/MWh	1,770/9,070,469	1,127/9,206,108	744/9,408,392
Avoided emissions (*)	tCO ₂	637	406	268
TOE saved	TOE	331	211	139

(*) Avoided emissions calculation is carried out with the 2019 location-based conversion factor (base year of intervention planning). The figures are obtained by multiplying yearly saved MWh with the Terna 2019 national mix conversion factor. For the sake of transparency, the 2020, 2021 and 2022 avoided emissions datapoint, calculated based on the Terna 2020, 2021 and 2022 location-based conversion factor, and reported in the company Energy Review, is equal to 595 tCO₂, 355 tCO₂ and 230 tCO₂.



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).





AXIS	CATEGORY
Energy Efficiency	Clean Transportation and Infrastructure for Low Carbon Transport
Short Description	
Installation of charging stations for electric vehicles and related services	

5. Electric mobility and related services



Acea aims at contributing to the development of sustainable mobility, thanks to the infrastructures that enable its adoption. Acea Innovation, in particular, will be involved in the progressive installation of electric recharge columns for electric vehicles (EV) which supply certified green energy, with a recharging power of either 22kW or 50kW. Acea Innovation also developed a multifunctional platform with the BOMTS proprietary technology (Banking Operation Maintenance Telematics Security) that allows different types of electric transportation services to be provided: from the control of the recharging infrastructure to payments, from the supply of information services to video surveillance and other applications balanced on the clients' needs, being them either retail or big corporates. This activity will contribute to the wider adoption of electric vehicles for those who value sustainable behaviours.

PROJECT STATUS: ongoing

LOCATION: Latium and Umbria, Italy

Green Bond Allocation

ALLOCATION				
TOTAL FINANCED AMOUNT (€ MILLION)	2019	2020	2021	2022
10.25	-	0.97	4.54	4.74

Environmental performance indicators

KPI	UoM	2020	2021	2022
Installed charging columns during the year	n.	-	200	223
Supplied certified green energy through Acea charging columns	MWh	-	123	805
Avoided emissions (*)	tCO ₂	-	144	942
Acea clients using the platform during the year	n.	-	978	2,813

(*) The emissions reduction represented here can be linked to consumers' habits, to those who picked electric vehicles rather than traditional ones and to the fact that Acea charging columns supply certified green energy.

NB: environmental performance data are available starting from 2021.



AXIS	CATEGORY
Energy Efficiency	Clean Transportation and Infrastructure for Low Carbon Transport
Short Description	
Acquisition of zero emissions vehicles	

6. Environmental impact reduction from the vehicles of the company's fleet



With the objective of containing the environmental impacts linked with the company's fleet used for on-site interventions Areti, the company's subsidiary that focuses on the management of the electricity distribution network in Rome and Formello, bought electric vehicles for operative employees and planning the realisation of car sharing solutions. In the same manner, Areti is engaged in the realisation of charging infrastructure within operative sites.

PROJECT STATUS: ongoing

LOCATION: Latium, Italy

Green Bond Allocation

ALLOCATION				
TOTAL FINANCED AMOUNT (€ MILLION)	2019	2020	2021	2022
2.71	-	2.71	-	-

Environmental performance indicators

KPI	UoM	2020	2021	2022
Avoided emissions (*)	tCO ₂	5.2	26.6	24.1
Total number of electric vehicles from Areti	n.	125	125	125

(*) It should be noted that the assignment of electric vehicles to operating personnel was completed in 2021.



IL NUOVO SMART METER 2G DI ARETI

MONOFASE
PROTOTIPO



AXIS	CATEGORY
Energy Efficiency	Smart Meters
Short Description	
Production and installation of energy smart meters on the network	

7. Substitution of 2G meters in the electricity distribution service



The technological innovation applied to management processes is assuming an ever-growing role for Acea as it aims the enabling of the development of the so-called ‘smart-living’, and clear impacts on energy savings. In particular, Areti is engaged in the massive substitution campaign with the new generation 2G meters, for a total of more than a million devices. The characteristics of those meters will provide clients with more data and more awareness, together with narrowing the expected estimates on invoices.

PROJECT STATUS: ongoing

LOCATION: Latium, Italy

Green Bond Allocation

ALLOCATION				
TOTAL FINANCED AMOUNT (€ MILLION)	2019	2020	2021	2022
48.26	-	5	23.14	20.12

Environmental performance indicators

KPI	UoM	2020	2021	2022
Number of 2G meters installed during the year	n.	59,275	316,176	273,294
Installed 2G smart meters / total meters	%	3.5 (59,275/1,676,378)	22.4 (375,451/1,676,378)	38.7 (648,745/1,676,378)



AXIS	CATEGORY
Circular Economy	Wastewater Treatment
Short Description	
Operation of wastewater collection and treatment aiming at reducing sewage sludge	

8. Efficiency and modernisation of the purification sector (sludge reduction, centralisation and processing capacity increase, energy efficiency)



Acea, within the most important players in the integrated water system and national leader in the sector for consumers served, started different initiatives that converge to the efficiency and modernisation of the water purification sector. In particular, Acea Ato 2, the major subsidiary for the water sector within the Group, has developed a few projects with relevant impacts. Among those, the definition of a “Sludge Plan” which includes structural interventions aimed at increasing the power of medium-to-big-sized purifiers and reducing the quantity of the overall sludge produced thanks to, by means of example, the further development of dryers, the process integration of different technologies such as ozonolysis, the renewal or the adoption of sludge drying compartments, and so on. Acea Ato 2 has also defined a plan for the rationalisation of purification plants, identified through the study of the territory on both an urbanistic and a geomorphological perspective. This activity will continue to be carried out by upgrading existing small plants or, whenever possible, through the centralisation of the purifying treatment process in bigger plants, with the related dismissal of smaller plants. Lastly, various energy efficiency activities have contributed to the modernisation of the purification sector, having been identified with a deep analysis of the plants’ energy consumption and their relative sub-compartments.

PROJECT STATUS: ongoing

LOCATION: Latium, Italy

Green Bond Allocation

ALLOCATION				
TOTAL FINANCED AMOUNT (€ MILLION)	2019	2020	2021	2022
128.22	12.12	24.62	26.25	65.23

Environmental performance indicators

KPI	UoM	2020	2021	2022
Sludge reduction				
Total sludge (solid and liquid)	t	78,934	66,605	63,279
Reduction with respect to base year (2019)	%	21.3	33.6	36.9
Rationalisation of purifying plants				
Percentage increase of the purifying capacity with respect to base year (2019)	%	3.7	3.7	3.7
Dismissed-centralised plants	n.	7	6	4
Population equivalent interested in the centralisation of purifiers	PE	15,730	26,540	17,100
Energy efficiency interventions				
Avoided emissions thanks to energy savings in the purifying compartment (*)	tCO ₂	399.6	567.36	649.08

(*) The calculus refers to the Terna conversion factor of the national mix for 2019, when the project started. The 2021 and 2022 figures also consider the avoided emissions linked to energy efficiency measures in the purifying sector carried out in previous years, which also determine benefits for the following year.



AXIS	CATEGORY
Circular Economy	Anaerobic Digestion of Bio-waste and/or Sewage Sludge
Short Description	
New and revamping of the Anaerobic digestion facilities	

9. Biomethane production from purification plants



Acea Ato 2 foresees upgrading interventions in the anaerobic digestion compartments for the two biggest purifiers in Rome (North and East), functional to the transformation of locally produced biogas into biomethane. The intervention's objective is to isolate all the methane contained into the biogas, controlling its quality and quantity, and optimising its usage.

While today biogas is meant for the production of heat for digesters, the resulting biomethane from the refining process will be introduced to the gas network and intended for vehicles through certifications for the quantity produced and introduced into the pipes, providing environmental benefits linked to the reduction of transportation emissions.

PROJECT STATUS: ongoing

LOCATION: Latium, Italy

Green Bond Allocation

ALLOCATION				
TOTAL FINANCED AMOUNT (€ MILLION)	2019	2020	2021	2022
1.05	0.32	0.08	0.23	0.42

Environmental performance indicators

KPI	UoM	2020	2021	2022
% upgrading intervention advancement upgrading for North and East Rome	%	35	50	70
Biomethane introduced in the network	Sm ³			
Avoided emissions (*)	tCO ₂			

(*) The environmental improvement is attributable to consumers who will use biomethane as an alternative to traditional methane. The calculation will take as reference the conversion factor of natural gas (methane) published in the ISPRA document, Table of national parameters for the calculation of 2020 emissions (based on 2019 data, start year of the project).

NB: The environmental performance indicators will be available once the upgrading of the purifiers is complete.





**TAKE YOUR
COMPOST
HERE**



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AXIS	CATEGORY
Circular Economy	Anaerobic Digestion of Bio-waste and/or Sewage Sludge
Short Description	
Facilities and services related to composting of bio-waste	

10. Production of renewable energy through composting plants



Acea Ambiente owns an integrated system of waste management and two plants aimed at specifically creating compost, where it is also possible to gather electric and thermal energy in the anaerobic digestion sections, thanks to specific realised and undergoing investments. The organic matrix coming into the anaerobic digestion section in fact gets biologically degraded and thus produces biogas, caught to produce 100% renewable energy for the market.

PROJECT STATUS: ongoing

LOCATION: Latium, Umbria and Tuscany, Italy

Green Bond Allocation

ALLOCATION				
TOTAL FINANCED AMOUNT (€ MILLION)	2019	2020	2021	2022
62.31	43.20	5.42	8.35	5.34

Environmental performance indicators

KPI	UoM	2020	2021	2022
Biogas based electric energy produced and served in the network	MWh	18,715	15,962	20,243
Installed power	MW	6.96	6.96	6.96
Gross electric energy produced/waste sent to treatment to the Aprilia, Monterotondo Marittimo, Orvieto plants	MWh/t	0.1216	0.1256	0.1363
Avoided emissions to produce electric energy (*)	tCO ₂	6,737	5,746	7,287

(*) Calculations refer to the Terna 2019 national mix conversion factor, when the project started.



AXIS	CATEGORY
Circular Economy	Waste Management
Short Description	
Infrastructure to increase the total waste management capacity	

11. Increase in the waste treatment capacity



Acea aims at consolidating its positioning in the circular economy sector, reinforcing core businesses such as waste to energy (WtE) and composting, developing the waste to material (WtM) value chain for plastics and paper, for example, through the acquisition of material selection and treatment plants, and with a particular focus in the special waste category sector. All this entails different synergies between the Group's activities, for example, closing the water waste circle (sludge) also through waste-to-energy and the realisation of residual ashes recovery plants coming from the same waste-to-energy process.

PROJECT STATUS: ongoing

LOCATION: Latium, Marche, Piedmont and Umbria, Italy

Green Bond Allocation

ALLOCATION				
TOTAL FINANCED AMOUNT (€ MILLION)	2019	2020	2021	2022
71.66(*)	22.07	17.64	10.88	21.07

(*) of which M&A activities for Euro 21.6 million in 2019, Euro 16.0 million in 2020, Euro 7.19 in 2021 and Euro 12.63 million in 2022.

Environmental performance indicators

KPI	UoM	2020	2021	2022
Overall waste treatment capacity in the year	t	1,905,360	2,448,120	2,562,865
Treated waste for the year	t	1,449,110	1,514,554	1,714,281
Compost produced/waste sent to composting plants	%	9.8(*)	13.5	21.2
Secondary raw materials out of treatment plants/waste coming in plants	t/t	147,542/184,182	182,615/246,236	189,717/286,772

(*) 2020 figure has been adjusted for data consolidation.



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Il Compost Acea a Km0

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AXIS	CATEGORY
Circular Economy	Waste Management
Short Description	
Installation of Smart composting systems	

12. Acea SmartComp



Among the initiatives that promote a circular economy, Acea has developed and trademarked an intelligent system equipped with IoT technology and movement sensors for zero kilometer composting. Research and development activities led Acea Elabori to the creation of a SmartComp Unit prototype, which will form the basis of the new version Acea Smart Comp 2.0. The SmartComp composter is a small-scale plant which, through a completely automated process, takes 90 days to transform organic waste into quality-certified compost, sanitised and without pathogenic bacteria, ready to be used as fertilizer and soil conditioner. The local treatment of organic waste is thought for those who produce huge quantities of waste: markets, malls, airports, stations, canteens, etc. Acea SmartComp allows waste to be treated on site and thus avoids its transportation, reducing its cost and the relative emissions. The advanced integrated IoT technology automates the whole process, monitoring in real-time the state of transformation and various environmental data (temperature, humidity, interstitial gas, emissions, etc). Data gathered and analysed is given back to the client through a dedicated dashboard which shows the performance of the different indicators, such as removed CO₂ emissions and the quantity of produced compost. Acea Innovation has begun the commercialisation of the SmartComp.

PROJECT STATUS: ongoing

LOCATION: Latium, Italy

Green Bond Allocation

ALLOCATION				
TOTAL FINANCED AMOUNT (€ MILLION)	2019	2020	2021	2022
2.15	0.14	0.53	0.97	0.51

Environmental performance indicators

KPI	UoM	2020	2021	2022
Number of SmartComp installed	n.	-	4	4
Organic waste treated by SmartComp (*)	t	-	200	240
Produced compost by SmartComp (*)	t	-	40	48
Avoided emissions (*)	tCO ₂	-	400	480

(*) The environmental advancement represented are linked to consumers that installed SmartComp.

NB: environmental performance data are available starting from 2021.



AXIS	CATEGORY
Green Energy	Renewable Energy
Short Description	
Construction, acquisitions and development of photovoltaic plants and development of greenfield photovoltaic plants	

13. Production of electric energy from photovoltaic sources



Acea embraced the journey of production of electric energy from renewable sources, in particular from photovoltaic sources, thanks to the acquisition and realisation of new plants, with the objective of achieving an overall 747MW installed capacity (178MW through M&A activities and 569MW through the construction of greenfield photovoltaic plants in industrial and rural areas)².

PROJECT STATUS: ongoing

LOCATION: Apulia, Basilicata, Latium, Marche, Piedmont, Sardinia and Sicily, Italy

Green Bond Allocation

ALLOCATION				
TOTAL FINANCED AMOUNT (€ MILLION)	2019	2020	2021	2022
126.55(*)	54.91	43.54	36.66	-8.56

(*) of which M&A activities (net of divestments) for Euro 53.1 million in 2019, Euro 16.52 million in 2020 and Euro 14.99 in 2021 and Euro -34 million in 2022.

Environmental performance indicators

KPI	UoM	2020	2021	2022(*)
Installed power/Expected power	MW/MW	52/747	72.5/747	101/747
Gross production of electric energy	GWh	74.96	78.61	111.9
Avoided emissions(**)	tCO ₂	39,961	41,907	59,654

(*) Figures include the capacity of the plants and the gross electricity production of the investee company, which is not fully consolidated

(**) The calculation of avoided emissions refers to the emissions' intensity index provided by Acea Produzione coming from non-renewable sources in 2019. This data is multiplied by the photovoltaic energy produced during the year

2 On March 2022 Acea closed the agreement with the UK investment fund Equitix, managed by Equitix Investment Management Limited, for the sale of a majority interest in its photovoltaic holding company to which Acea's photovoltaic assets were transferred.

Annex I – Total allocated amounts per Project Card (2019-2020-2021-2022)

AXIS	CATEGORY	PROJECT CARD	2019 (M€)	2020 (M€)	2021 (M€)	2022 (M€)	TOTAL (M€)
Water Management	Water Resource Protection	1. Water losses reduction	38.28	60.94	66.95	83.30	249.47
		2. Interventions to increment the water system resilience and the security of water supply	22.94	15.27	17.25	23.07	78.53
Energy Efficiency	Resiliency of electricity distribution infrastructure	3. Energy efficiency in the electricity distribution	13.50	6.30	10.80	5.00	35.60
		4. Increased resilience in the electricity distribution network thanks to development, modernisation, connectivity and telematic control interventions	30.57	52.07	61.09	46.98	190.71
	Clean Transportation and Infrastructure for Low Carbon Transport	5. Electric mobility and related services	0.00	0.97	4.54	4.74	10.25
		6. Environmental impact reduction from the vehicles of the company's fleet	0.00	2.71	0.00	0.00	2.71
	Smart Meters	7. Substitution of 2G meters in the electricity distribution service	0.00	5.00	23.14	20.12	48.26
Circular Economy	Wastewater Treatment	8. Efficiency and modernisation of the purification sector (sludge reduction, centralisation and processing capacity increase, energy efficiency)	12.12	24.62	26.25	65.23	128.22
	Anaerobic Digestion of Bio-waste and/or Sewage Sludge	9. Biomethane production from purification plants	0.32	0.08	0.23	0.42	1.05
		10. Production of renewable energy through composting plants	43.20	5.42	8.35	5.34	62.31
	Waste Management	11. Increase in the waste treatment capacity	22.07	17.64	10.88	21.07	71.66
		12. Acea Smart Comp	0.14	0.53	0.97	0.51	2.15
Green Energy	Renewable Energy	13. Production of electric energy from photovoltaic sources	54.91	43.54	36.66	-8.56	126.55
Total			238.05	235.09	267.12	267.21	1,007.47

Annex II – Output & Impact KPI per Project Card (2020-2021-2022)

AXIS	CATEGORY	PROJECT CARD	KPI	UoM	2020	2021	2022
Water Management	Water Resource Protection	1 - Water losses reduction	% Reduction of water volume lost (over 2019)	%	5	13.6	17.2
			Flow and pressure meters installed during the year	N.	354	641	455
			Reclaimed water network during the year	km	136.2	203.4	204.5
			Districted water network during the year	km	7,907(*)	3,687	1,373
		2 - Interventions to increment the water system resilience and the security of water supply	Advancement of the design/authorisation phase of the longer-term interventions “Securing and modernisation of the Peschiera water system” - Sub-project “New Marcio water system, lot #1”	%	10	30	80
			Advancement of the design/authorisation phase of the longer-term interventions “Securing and modernisation of the Peschiera water system” - Sub-project “Doubling Siphon VIII – segment Casa Valieria – exit Galleria Ripoli”	%	0	20	80
			Advancement of the design/authorisation phase of the longer-term interventions “Securing and modernisation of the Peschiera water system” - Sub-project “Monte Castellone conduct – Colle Sant’Angelo (Valmontone)”	%	0	10	80
			Advancement of the design/authorisation phase of the longer-term interventions “Securing and modernisation of the Peschiera water system” - Sub-project “Ottavia-Trionfale adducer”	%	0	20	80
			Interventions in pipeline/ interventions in the ATO2 scope	%	50	40	10
			Interventions in process/ interventions in the ATO2 scope	%	40	40	70
			Interventions completed/ interventions in the ATO2 scope	%	10	20	20

AXIS	CATEGORY	PROJECT CARD	KPI	UoM	2020	2021	2022
Energy Efficiency	Resiliency of electricity distribution Infrastructure	3 - Energy efficiency in the electricity distribution networks' management	Saved electricity/ Distributed electricity	MWh/ MWh	1,770/ 9,070,469	1,127/ 9,206,108	744/ 9,408,392
			Avoided emissions	tCO ₂	637	406	268
			TOE saved	TOE	331	211	139
		4 - Increased resilience in the electricity distribution network thanks to development, modernisation, connectivity and telematic control interventions.	Annual % variation of the IRI (intervention Risk Index)=after intervention value/ before intervention value)	%	-25	-24	-17
			Activation/Upgrade of Secondary Cabins' automation and telematic control	n.	582	1,454	1,646
			Broadband linked primary cabins / 70 primary cabins	n./n.	14/70	10/70	6/70
			cumulative	n./n.	14/70	24/70	30/70
			Number of pylons removed	n.	22	48	49
			cumulative	n.	22	70	119
			Recovered soil in highly-biodiverse areas	m ²	275	740	980
			cumulative	m ²	275	1,015	1,995
	Clean Transportation and Infrastructure for Low Carbon Transport	5 - Electric mobility and related services	Installed charging columns	n.	not available in 2020	200	223
			Supplied certified electricity through Acea charging columns	MWh	not available in 2020	123	805
			Avoided emissions	tCO ₂	not available in 2020	144	942
			Acea clients using the platform during the year	n.	not available in 2020	978	2,813
		6 - Environmental impact reduction from the vehicles of the company's fleet	Avoided emissions	tCO ₂	5.2	26.6	24.1
			Number of electric vehicles from Areti	n.	125	125	125
	Smart Meters	7 - Substitution of 2G meters in the electricity distribution service	Number of 2G meters installed during the year	n.	59,275	316,176	273,294
			Installed 2G smart meters / total meters	%	3.5	22.4	38.7
					(59,275/ 1,676,378)	(375,451/ 1,676,378)	(648,745/ 1,676,378)

AXIS	CATEGORY	PROJECT CARD	KPI	UoM	2020	2021	2022
Circular Economy	Wastewater Treatment	8 - Efficiency and modernisation of the purification sector (sludge reduction, centralisation and processing capacity increase, energy efficiency)	Total sludge (solid and liquid)	t	78,934	66,605	63,279
			Reduction with respect to base year (2019)	%	21.3	33.6	36.9
			Percentage increase of the purifying capacity with respect to base year (2019)	%	3.7	3.7	3.7
			Dismissed-centralised plants	n.	7	6	4
			AE interested in the centralisation of purifiers	AE	15,730	26,540	17,100
			Avoided emissions thanks to energy savings in the purifying compartment	tCO ₂	399.6	567.36	649.08
	Anaerobic Digestion of Bio-waste and/or Sewage Sludge	9 - Biomethane production from purification plants	% upgrading intervention advancement upgrading for North and East Rome	%	35	50	70
			Biomethane introduced in the network	Sm ³	not applicable before upgrading completion	not applicable before upgrading completion	not applicable before upgrading completion
			Avoided emissions	tCO ₂	not applicable before upgrading completion	not applicable before upgrading completion	not applicable before upgrading completion
		10 - Production of renewable energy through composting plants	Biogas based electric energy produced and served in the network	MWh	18,715	15,962	20,243
			Installed power	MW	6.96	6.96	6.96
			Gross electric energy produced/waste sent to treatment to the Aprilia, Monterotondo Marittimo, Orvieto plants	MWh/t	0.1216	0.1256	0.1363
			Avoided emissions to produce electric energy	tCO ₂	6,737	5,746	7,287
		11 - Increase in the waste treatment capacity	Overall waste treatment capacity in the year	t	1,905,360	2,448,120	2,562,865
			Treated waste for the year	t	1,449,110	1,514,554	1,714,281
			Compost produced/waste sent to composting plants	%	9.8(*)	13.5	21.2
			Secondary raw materials out of treatment plants/ Waste coming in plants	t/t	147,542/184,182	182,615/246,236	189,717/286,772
	Waste Management	12 - Acea Smart Comp	Number of SmartComp installed	n.	not available in 2020	4	4
			Organic waste treated by SmartComp	t	not available in 2020	200	240
			Produced compost by SmartComp	t	not available in 2020	40	48
			Avoided emissions	tCO ₂	not available in 2020	400	480

(*) The value was changed following data consolidation.



AXIS	CATEGORY	PROJECT CARD	KPI	UoM	2020	2021	2022
Green Energy	Renewable Energy	13 - Production of electric energy from photovoltaic sources(**)	Installed power/ Expected power	MW/MW	52/747	72.5/747	101/747
			Gross production of electric energy	GWh	74.96	78.61	111.9
			Avoided emissions	tCO ₂	39,961	41,907	59,654

(**) Figures include the capacity of the plants and the gross electricity production of the investee company, which is not fully consolidated.



Acea

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REPORT REVIEW

Acea Green Bond Report

Green Bond Allocation & Impact Report Acea

04 January 2024

VERIFICATION PARAMETERS

Type(s) of reporting

- Green Bond Allocation & Impact Report

Relevant standard(s)

- Harmonized Framework for Impact Reporting (HFIR), updated June 2023, as administered by International Capital Market Association (ICMA)
- Acea's Green Bond Allocation & Impact Report (as of December 22, 2023)
- Acea's Green Financing Framework (as of January 16, 2021)

Scope of verification

- Bond identification:

ISIN	Bond Maturity Date	Bond Issuance Amount
XS2292486771	September 28, 2025	EUR 300,000,000
XS2292487076	July 28, 2030	EUR 600,000,000

Lifecycle

- Post-issuance verification

Validity

- As long as no changes are undertaken by the Issuer to its Green Bond Allocation & Impact Report as of December 22, 2023

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SCOPE OF WORK

Acea ("the Issuer") commissioned ISS-Corporate to provide a Report Review on its Green Bond Allocation & Impact Report by assessing:

1. The alignment of Acea's Green Bond Allocation & Impact Report with the commitments set forth in Acea Green Financing Framework (as of January 16, 2021).¹
2. Acea's Allocation & Impact Report - benchmarked against the Harmonized Framework for Impact Reporting (HFIR) updated June 2023, as administered by International Capital Market Association (ICMA).
3. The disclosure of proceeds allocation and soundness of reporting indicators – whether the impact metrics align with best market practices and are relevant to the s issued.

¹ The Framework was assessed as aligned with the Green Bond Principles as of January 16, 2021.

ASSESSMENT SUMMARY

REVIEW SECTION	SUMMARY	EVALUATION
Part 1. Alignment with the Issuer's commitments set forth in the Framework	The Acea's Green Bond Allocation & Impact Report meets the issuer's commitments set forth in the Green Financing Framework. The proceeds have been used to finance the following categories: Water resource protection; Resiliency of electricity distribution infrastructure; Clean transportation and infrastructure for low carbon transport; Smart meters; Wastewater treatment; Anaerobic digestion of bio-waste and/or sewage sludge; Waste management; Renewable energy in accordance with the eligibility criteria defined in the Framework.	Aligned
Part 2. Alignment with the Harmonized Framework for Impact Reporting	The Green Bond Allocation & Impact Report is in line with ICMA's Harmonized Framework for Impact Reporting. The Issuer follows core principles and where applicable key recommendations.	Aligned
Part 3. Disclosure of proceeds allocation and soundness of reporting indicators	The allocation of the bond's proceeds has been disclosed, with a detailed breakdown across different eligible project categories as proposed in the Framework.² Acea's Green Bond Allocation & Impact Report has adopted an appropriate methodology to report the impact generated by providing comprehensive disclosure on data sourcing, calculations methodologies and granularity reflecting best market practices.	Positive

² The assessment is based on the information provided in the Issuer's report. The Issuer is responsible for the preparation of the report including the application of methods and procedures designed to ensure that the subject matter information is free from material misstatement.

REPORT REVIEW ASSESSMENT

PART I: ALIGNMENT WITH COMMITMENTS SET FORTH IN THE GREEN FINANCING FRAMEWORK³

The following table evaluates the Green Bond Allocation & Impact Report against the commitments set forth in Acea's Framework, which are based on the core requirements of the Green Bond Principles as well as best market practices.

GBP	OPINION	ALIGNMENT WITH COMMITMENT
1. Use of Proceeds	Acea confirms to follow the Use of Proceeds' description provided by Acea's Green Financing Framework. The report is in line with the initial commitments set in the Acea's Green Financing Framework: - Water resource protection - Resiliency of electricity distribution infrastructure - Clean transportation and infrastructure for low carbon transport - Smart meters - Wastewater treatment - Anaerobic digestion of bio-waste and/or sewage sludge - Waste management - Renewable energy The Issuer's green categories align with the project categories and in accordance with the eligibility criteria as proposed by the Acea's Green Financing Framework. Environmental benefits at project category level are described and quantified, and a quantitative analysis of the environmental benefits of the project category are also provided. The Green Bond Report notes 53% of the financing was directed towards new projects, and 47% of the financing was directed towards existing projects. The expected	✓

³ Acea's Green Financing Framework was assessed as aligned with the GBP (as of June, 2020) as of January 16, 2021.

	look-back period is set at up to 3 calendar years prior to the issuance of Green Bonds.	
2. Process for Project Evaluation and Selection	Acea confirms to follow the Process for Project Evaluation and Selection description provided by Acea's Green Financing Framework. The report is in line with the initial commitments set in the Acea's Green Financing Framework. The projects selected are defined and structured in a congruous manner. The Issuer ensures compliance with the Eligibility Criteria. ESG risks associated with the project categories are identified and managed through an appropriate process. Transparency and clearly defined responsibilities are reported. Several stakeholders are involved in the evaluation process. The potential eligible Green Projects will be evaluated by the Green Finance Working Group (GFWG).	✓
3. Management of Proceeds	Acea confirms to follow the Process for Management of Proceeds description provided by Acea's Green Financing Framework. The report is in line with the initial commitments set in the Acea's Green Financing Framework: proceeds managed by the Green Finance Working Group. The proceeds raised in 2021 have been fully allocated as of December 2022. The proceeds are tracked in an appropriate manner and attested in a formal internal process.	✓
4. Reporting	Acea's Impact Report is coherent with the Reporting description provided by Acea's Green Financing Framework. The report is in line with the initial commitments set in Acea's Green Financing Framework: to publish annually an allocation report and an impact report until full allocation. Allocation reporting will include the amount of net proceeds allocated per eligible green project category, the percentage of refinancing in existing projects, the amount of unallocated proceeds, and the location and status of the projects. Acea also intends to report on relevant impact indicators including estimated annual reduction in volume of water losses	✓

	(m³/year), estimated annual reduction in GHG emission (tCO₂e/year), and estimated sludge reduced (t). The sections “Allocation reporting” and “Impact Reporting” of the Green Bond Allocation & Impact Report comply with the pre-issuance commitment expressed in the framework. The report is intended to be publicly available to the lenders at https://www.gruppo.aceait/en/investors/financial-structure/green-bond.	
5. Verification	ISS-Corporate has provided a Second Party Opinion (SPO) on Acea’s Green Financing Framework.	

PART II: ASSESSMENT AGAINST THE ICMA HARMONIZED FRAMEWORK FOR IMPACT REPORTING

FOR GREEN BONDS

Reporting is a core component of the Green Bond Principles and transparency is of particular value in communicating the expected and/or achieved impact of projects in the form of an annual reporting. Green bond Issuers are required to report on both the use of green bond proceeds, as well as the environmental impacts at least on an annual basis until full allocation or maturity of the bond. The Harmonized Framework for Impact Reporting (HFIR) has been chosen as a benchmark for this analysis as it represents the most widely adopted standard.

The table below evaluates Acea Green Bond Allocation & Impact Report against ICMA Harmonized Framework for Impact Reporting (HFIR).

CORE PRINCIPLES		
ICMA HFIR	GREEN BOND ALLOCATION & IMPACT REPORT	ASSESSMENT
Reporting on an annual basis	Acea has reported within one year from issuance and all the proceeds have been fully allocated. The report will be available on Acea's website. ⁴	✓
Illustrating the environmental impacts or outcomes	The assessment and measurement of the impacts generated by Acea's Green Bonds covered the following areas: Water management – water resource protection: ▪ Water losses reduction ▪ % Reduction of water volume lost (over 2019). ▪ Flow and pressure meters installed during the year. ▪ Reclaimed water network during the year. ▪ Districted water network during the year. ▪ Interventions to increment the water system resilience and the security of water supply ▪ Advancement of the design/authorization phase of the longer-term interventions "Securing	✓

⁴ Acea, Green Bond, <https://www.gruppo.acea.it/en/investors/financial-structure/green-bond>

	and modernization of the Peschiera water system"- Sub-project "New Marcio water system, lot #1". ▪ Advancement of the design/authorization phase of the longer-term interventions "Securing and modernization of the Peschiera water system"- Sub-project "Doubling Siphon VIII – segment Casa Valieria – exit Galleria Ripoli". ▪ Advancement of the design/authorization phase of the longer-term interventions "Securing and modernization of the Peschiera water system" – Sub-project "Monte Castellone conduct – Colle Sant'Angelo (Valmontone)". ▪ Advancement of the design/authorization phase of the longer-term interventions "Securing and modernization of the Peschiera water system" – Sub-project "Ottavia-Trionfale adducer". ▪ Interventions in pipeline /interventions in the ATO2 scope. ▪ Interventions in process /interventions in the ATO2 scope. ▪ Interventions completed/ interventions in the ATO2 scope. Energy Efficiency - Resilience of electricity distribution Infrastructure ▪ Energy efficiency in the electricity distribution networks' management ▪ Saved electricity/Distributed electricity. ▪ Avoided emissions. ▪ Ton of Oil Equivalent (TOE) saved. ▪ Increased resilience in the electricity distribution network thanks to development,	
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modernization, connectivity and telematic control interventions

- Annual % variation of the IRI (Intervention Risk Index) = after intervention value/before intervention value).
- Activation/Upgrade of Secondary Substations' automation and telematic control.
- Broadband linked Primary Substations / 70 Primary Substations.
- Number of pylons removed.
- Recovered soil in highly biodiverse areas.

Energy Efficiency - Clean Transportation and Infrastructure for Low Carbon Transport

- Electric mobility and related services
 - Installed charging column during the year.
 - Supplied certified electricity through Acea charging columns.
 - Avoided emissions.
 - Acea clients using the platform during the year.
- Environmental impact reduction from the vehicles of the company's fleet
 - Avoided emissions.
 - Total number of electric vehicles from Areti.
- Smart Meters
 - Number of 2G meters installed during the year.
 - Installed 2G smart meters/total meters.

Circular Economy - Wastewater Treatment

- Efficiency and modernization of the purification sector (sludge reduction, centralization and processing capacity increase, energy efficiency).

- Sludge reduction.
- Total sludge (solid and liquid).
- Reduction with respect to base year (2019).
- Rationalization of purifying plants.
- Percentage increase of the purifying capacity with respect to base year (2019).
- Dismissed-centralized plants.
- Population equivalent interested in the centralization of purifiers.
- Energy efficiency interventions.
- Avoided emissions thanks to energy savings in the purifying compartment.

Circular Economy - Anaerobic Digestion of Bio-waste and/or Sewage Sludge

- Biomethane production from purification plants
 - % upgrading intervention advancement upgrading for North and East Rome.
 - Biomethane introduced in the network.
 - Avoided emissions.
- Production of renewable energy through composting plants
 - Biogas based electric energy produced and served in the network.
 - Installed power.
 - Gross electric energy produced/waste sent to treatment to the Aprilia, Monterotondo Marittimo, Orvieto plants.
 - Avoided emissions to produce electric energy.

Circular Economy - Waste Management

- Increase in the waste treatment capacity
 - Overall waste treatment capacity in the year.
 - Treated waste for the year.

	- Compost produced/waste sent to composting plants. - Secondary raw materials out of treatment plants/Waste coming in plants. - Acea Smart Comp - Number of SmartComp installed. - Organic waste treated by SmartComp. - Produced compost by SmartComp. - Avoided emissions. Green Energy - Renewable Energy - Production of electric energy from photovoltaic sources - Installed power/Expected power. - Gross production of electric energy. - Avoided emissions.	
ESG Risk Management	The Issuer confirms that it has managed associated ESG risks of the invested projects. Acea has established within its governance system an internal procedure for best practices of the whole Group in the sustainable finance world, including processes for designing, planning, executing and monitoring all the sustainable finance activities in the Group. Furthermore, the company formed a Green Finance Working Group (GFWG) for this purpose. All potential Eligible Green Projects comply with local laws and regulations, including any applicable regulatory environmental requirements, as well as Acea's internal standards for managing ethical and governance risks following the current Code of Ethics and different Management Systems, all publicly available in the Acea website.	✓
Allocation of proceeds - Transparency on the currency	100% of proceeds have been allocated and reported in a single currency (EUR). Projects on which proceeds have been allocated have been disclosed.	✓

RECOMMENDATIONS		
ICMA HFIR	GREEN BOND ALLOCATION & IMPACT REPORT	ASSESSMENT
Define and disclose period and process for Project Evaluation and Selection	The proceeds collected are equal to the amount allocated to the eligible projects. The entirety of proceeds has been allocated to Green Assets. No modification (removal or additional projects) of the portfolio is planned. 53% of the proceeds have been allocated to refinance projects between 2019-2020. 47% of the remaining proceeds were allocated to projects developed in the period 2021-2022. The Issuer followed a transparent process for selection and evaluation of Eligible Green Projects. Projects financed and/or refinanced through the issued under Green Financing Framework were evaluated and selected based on compliance with the Eligibility Criteria as laid out in the Framework. Proceeds are monitored through the Enterprise Resource Planning tools.	✓
Disclose total amount of proceeds allocated to eligible disbursements	A total of EUR 900 m has been raised through Issuer's Green Bond. The Green Bond is divided into two sub-issuances of nominal values EUR 300 m for ISIN XS2292486771 and EUR 600 m for ISIN XS2292487076. 100% of the proceeds has been allocated to Green Assets.	✓
Formal internal process for the allocation of proceeds and to report on the allocation of proceeds	The Issuer followed a transparent process for the allocation of proceeds and has reported on the allocation of proceeds.	✓
Report at project or portfolio level	The Green Bond Allocation & Impact Report includes the total amount of proceeds allocated per eligible project category, type within categories and per geographical breakdown (region and country level). The report is on a green project category level.	✓

Describe the approach to impact reporting	The Issuer identifies the specific eligible projects and clearly defines, for each project, the total project's allocated proceeds.	✓
Report the estimated lifetime results and/or project economic life (in years)	The Issuer does not report on the average portfolio lifetime results or economic life (in years) for both the eligible project category and the subcategories.	-
Ex-post verification of specific projects	There is no ex-post verification planned.	-
Report on at least a limited number of sector specific core indicators	Acea has reported on sector specific indicators for the projects financed. Water management – water resource protection: ▪ Water losses reduction ▪ % Reduction of water volume lost (over 2019). ▪ Flow and pressure meters installed during the year. ▪ Reclaimed water network during the year. ▪ Districted water network during the year. ▪ Interventions to increment the water system resilience and the security of water supply ▪ Advancement of the design/authorization phase of the longer-term interventions "Securing and modernization of the Peschiera water system"- Sub-project "New Marcio water system, lot #1". ▪ Advancement of the design/authorization phase of the longer-term interventions "Securing and modernization of the Peschiera water system"- Sub-project "Doubling Siphon VIII – segment Casa Valeria – exit Galleria Ripoli".	✓

	▪ Advancement of the design/authorization phase of the longer-term interventions "Securing and modernization of the Peschiera water system" – Sub-project "Monte Castellone conduct – Colle Sant'Angelo (Valmontone)". ▪ Advancement of the design/authorization phase of the longer-term interventions "Securing and modernization of the Peschiera water system" – Sub-project "Ottavia-Trionfale adducer". ▪ Interventions in pipeline /interventions in the ATO2 scope. ▪ Interventions in process /interventions in the ATO2 scope. ▪ Interventions completed/ interventions in the ATO2 scope. Energy Efficiency - Resilience of electricity distribution Infrastructure ▪ Energy efficiency in the electricity distribution networks' management ▪ Saved electricity/Distributed electricity. ▪ Avoided emissions. ▪ TOE saved. Energy Efficiency - Clean Transportation and Infrastructure for Low Carbon Transport ▪ Electric mobility and related services ▪ Installed charging column during the year. ▪ Supplied certified electricity through Acea charging columns. ▪ Avoided emissions. ▪ Acea clients using the platform during the year.	
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	▪ Environmental impact reduction from the vehicles of the company's fleet ▪ Avoided emissions. ▪ Total number of electric vehicles from Areti. ▪ Smart Meters ▪ Number of 2G meters installed during the year. ▪ Installed 2G smart meters/total meters. Circular Economy - Wastewater Treatment ▪ Efficiency and modernization of the purification sector (sludge reduction, centralization and processing capacity increase, energy efficiency) ▪ Sludge reduction. ▪ Total sludge (solid and liquid). ▪ Reduction with respect to base year (2019). ▪ Rationalization of purifying plants. ▪ Percentage increase of the purifying capacity with respect to base year (2019). ▪ Dismissed-centralized plants. ▪ Population equivalent interested in the centralization of purifiers. ▪ Energy efficiency interventions. ▪ Avoided emissions thanks to energy savings in the purifying compartment. Circular Economy - Anaerobic Digestion of Bio-waste and/or Sewage Sludge ▪ Biomethane production from purification plants ▪ Avoided emissions. ▪ Production of renewable energy through composting plants ▪ Biogas based electric energy produced and served in the network. ▪ Installed power.	
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	- Avoided emissions to produce electric energy. Circular Economy - Waste Management - Increase in the waste treatment capacity - Overall waste treatment capacity in the year. - Treated waste for the year. - Compost produced/waste sent to composting plants. - Secondary raw materials out of treatment plants/Waste coming in plants. - Acea Smart Comp - Number of SmartComp installed. - Organic waste treated by SmartComp. - Produced compost by SmartComp. - Avoided emissions. Green Energy - Renewable Energy - Production of electric energy from photovoltaic sources - Installed power. - Expected power gross production of electric energy. - Avoided emissions.	
If there is no single commonly-used standard, Issuers may follow and disclose their own calculation methodologies	Water losses reduction: % Reduction of water volume lost (over 2019) - The data is the difference between the volumes lost in the reference year (equal to 255.4 Mm³ in 2022) in relation to the same data in 2019 (308.5 Mm³). The water balance is calculated based on the methodology established by the Regulatory Authority for Energy, Networks and the Environment (ARERA) with Resolution 917/2017/R/idr.	✓

- Reclaimed water network during the year - The data is estimated based on the design length of the main pipeline, to which the incidence of user derivations is added, assumed to be equal to 22% of the length of the pipeline itself. The value of the incidence of user derivations associated with each pipeline laid is estimated based on the cross-analysis of data extracted from procurement accounting and user databases.

Interventions to increase the water system resilience and the security of water supply:

- Interventions completed/interventions in the ATO2 scope - Parametric estimate of the data based on the timetable of the planned activities.

Energy efficiency in the electricity distribution networks' management:

- Saved electricity/Distributed electricity - This is the ratio between the MWh of electricity saved and the MWh of electricity distributed in the year under review.
- Avoided emissions - The calculation is carried out by multiplying the MWh saved in the year by the location-based conversion factor provided by Terna and available for the year 2019, the reference year for planning the interventions. In particular, the conversion factor 0 was used .36 tCO₂/MWh.
- TOE saved - The calculation is carried out by multiplying the MWh saved in the year by the ratio between TOE and energy carrier, equal to 0.187 TOE/MWh.

Increased resilience in the electricity distribution network thanks to development, modernization, connectivity and telematic control interventions:

- Annual percentage change in IRI (post-intervention value/pre-intervention value) - The IRI (pre and post) is calculated as the ratio between the number of BT customers benefiting from the intervention and the Return Time of the disservice connected to the specific risk factor. The indicator is consistent with the methodology shared with the Regulatory Authority for Energy, Networks and the Environment (ARERA) and with what was communicated to the latter.
- Activations/Upgrades of MV and/or BT Automation and Remote Control in CS - Each Secondary Cabin for which one of the following interventions is carried out is considered 1 for the purposes of the calculation.
- No. of CPs connected to broadband / 70 CPs - Ratio between the number of Primary Cabins connected to broadband and the number of total Primary Cabins subject to intervention in the intervention plan.
- Recovered soil in highly biodiverse areas - The m² recovered are obtained from the sum of the footprints on the ground of the removed pylons.

Electric mobility and related services:

- Avoided emissions - The calculation is carried out considering the MWh supplied by the electric charging stations and the hypothetical mileage in km of the consumers' cars with this electricity. From this hypothesis, the kilometers traveled are transformed into avoided emissions of CO₂, considering as the conversion factor the one provided by ISPRA (the database of average emission factors of road transport in Italy -

	FE passenger cars), and then subtracting the emissions of CO₂ from the electricity that is used by vehicles. ▪ Acea customers who used the platform during the year - Count of the number of users who used the top-up service at least once in the year 2021. Environmental impact reduction from the vehicles of the company's fleet ▪ Avoided emissions - The calculation is carried out by multiplying the avoided diesel consumption in the year by the ISPRA 2019 conversion factor (3.155 tCO₂/t diesel) net of the electricity consumed valued with the location-based factor provided by Terna and available for the year 2019, reference year for planning the initiative. In particular, the conversion factor 0.36 tCO₂/MWh was used. Replacement of 2G meters in the electricity distribution service: ▪ 2G smart meters installed / total meter park - Ratio between installed meters and the total number of meters covered by the massive plan (RARI). The indicator is consistent with what was communicated to the Regulatory Authority for Energy, Networks and the Environment (ARERA). Efficiency and modernization of the purification sector (sludge reduction, centralization and processing capacity increase, energy efficiency) Sludge reduction: ▪ Reduction with respect to base year (2019) - The data is calculated as the percentage change applied to the production of sludge (solid+liquid) in the year in question	
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	compared to the base year 2019, such that for the year 2022 (year in question). Rationalization of purifying plants: ▪ % increase of the purifying capacity with respect to base year (2019) - The data is calculated, with reference to the upgrade perimeter (10 plants), as a percentage change between the purification potential in the year in question compared to the base year 2019. Energy efficiency interventions: ▪ Avoided emissions thanks to energy savings in the purifying compartment - The calculation is carried out by multiplying the MWh saved in the year by the location-based conversion factor provided by Terna and available for the year 2019, the reference year for the start of the project. In particular, the conversion factor of 0.36 tCO₂/MWh was used. Biomethane production from purification plants: ▪ % upgrading intervention advancement upgrading for North and East Rome - The data is estimated based on the expected times for the construction of the work starting from the start of the request for the process for the qualification of the project to the GSE. ▪ Avoided emissions - The tons of CO₂ are calculated as the product of the cubic meters of biomethane produced and injected into the network by the emission factor of natural gas, if 1 Smc of biomethane is equivalent to 1 Smc of natural gas.	
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	Production of renewable energy through composting plant: ▪ Biogas based electric energy produced and served in the network - This is the sum of the electricity produced and transferred to the network in the plants where biogas is produced. ▪ Installed power - This is the sum of the installed power on the nameplate. ▪ Gross electric energy produced/waste sent to treatment to the Aprilia, Monterotondo Marittimo, Orvieto plants - The data is calculated as the ratio between the gross energy produced and the waste sent for treatment in the plants where biogas is produced. The ratio is calculated between the sum of the energy produced at UL7, UL5, UL4 and the sum of the waste treated at the same sites. ▪ Avoided emissions to produce electric energy - The calculation is carried out by multiplying the MWh of electricity produced and sold to the network from biogas in the year by the location-based conversion factor provided by Terna and available for the year 2019, the reference year for defining the target. In particular, the conversion factor of 0.36 tCO₂/MWh was used. Increase in the waste treatment facility: ▪ Overall waste treatment capacity in the year - This is the sum of the authorized quantities (official certifications) in waste treatment plants, the intermediated quantities and the budget of waste entering landfills in the reference year. ▪ Treated waste for the year - Sum of all waste treated by Acea Ambiente's own plants and by the plants of its subsidiaries.	
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	- Compost produced/waste sent to composting plants - Sum of compost produced by plants in the composting/waste supply chain managed by the same plants. - Secondary raw materials out of treatment plants/Waste coming in plants - Sum of selected waste leaving the selection/waste plants managed by the same plants. Acea SmartComp: - Organic waste treated by SmartComp - The maximum capacity, in terms of tonnes of waste, of each composter is taken into consideration and the values are added. The data on the maximum flow rate are provided by Acea Elabori, the Engineering Group company that designed the composter. - Produced compost by SmartComp - The calculation takes into consideration the value of organic waste treated by composters, 20% of which is transformed into compost. The data is provided by Acea Elabori. The percentage is the estimate of a study/analysis by Acea Elabori. - Avoided emissions - Ratio of 1:2: one ton of waste treated with Smart Comp corresponds to 2 t of CO₂ not emitted. Production of electric energy from photovoltaic sources: - Installed power/Expected power - Sum of the installed power (in the year in question) of the PV systems of Acea Produzione, its affiliates and the fully owned and not fully consolidated company AE Sun Capital (whose systems are managed by Acea), compared to the installed power envisaged by the Industrial Plan 2020-2024.	
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	- Gross production of electric energy - Production meter remote reading system. - Avoided emissions - The calculation is carried out by multiplying the GWh of gross energy produced by PV for the year by the emission factor from Acea Produzione's fossil sources in 2019, equal to 533.1 tCO₂/GWh, considering that that additional energy could have been produced from non-renewable.	
Disclosure on the conversion approach (if applicable)	The Issuer elects to convert units reported for individual projects based on a standard conversion factor and includes appropriate disclosure of the conversion approach in the report. In particular, the Issuer uses conversion factors for the calculation of avoided CO ₂ emissions indicator.	✓
Projects with partial eligibility	The Issuer does not include projects with partial eligibility.	-
When the expected impacts of different project components may not be reported separately, Issuers may use (and disclose) the attribution approach	The impact of Acea's projects is reported separately per project category and sub project category on an aggregated basis.	✓

OPINION

Acea follows the Harmonized Framework for Impact Reporting's core principles and some key recommendations. The Issuer provides transparency on the level of expected reporting as well as on the frequency, scope and duration, aligned with best practices.

PART III: DISCLOSURE OF PROCEEDS ALLOCATION AND SOUNDNESS OF THE IMPACT REPORTING INDICATORS

Use of Proceeds Allocation

Use of Proceeds allocation reporting is key to put the impacts into perspective with the number of investments allocated to the respective Use of Proceeds' categories.

The Use of Proceeds allocation reporting occurred within three years from the issuance, after full allocation of the proceeds.

This is the second year of allocation reporting and 100% of proceeds has been allocated in both 2022 and 2021. The Use of Proceeds allocation reporting occurred within the regular annual cycle from the issuance.

Proceeds allocated to eligible projects/assets

The proceeds' allocation is broken down by project type. The Issuer has provided details about the type of projects included in the portfolio, including the location of the project, project status, project description and relevant environmental performance indicators. The allocation reporting of Acea's Green Bond Allocation and Impact Report provides further information on:

- The type of projects (re-)financed.
- The total amount of proceeds in EUR million.
- The total financed amount for each eligible project.
- The environmental performance indicators as relevant to each project.

Impact Reporting Indicators

The table below presents an independent assessment of the Issuer's report and disclosure on the output, outcome, and/or impact of projects/assets using impact indicators.

ELEMENT	ASSESSMENT
Relevance	The impact indicator chosen by the Issuer for this bond is the following: Water losses reduction: ▪ % Reduction of water volume lost (over 2019). ▪ No. of flow and pressure meters installed during the year. ▪ Reclaimed water network during the year. ▪ District water network. Interventions to increase the water system resilience and the security of water supply: ▪ Interventions completed/interventions in the ATO2 scope. Energy efficiency in the electricity distribution networks' management: ▪ Saved electricity/Distributed electricity. ▪ Avoided emissions. ▪ TOE saved. Electric mobility and related services: ▪ Installed charging column. ▪ Supplied certified electricity through Acea charging columns. ▪ Avoided emissions. ▪ Acea customers who used the platform during the year. Environmental impact reduction from the vehicles of the company's fleet ▪ Avoided emissions. ▪ No. electric vehicles. Replacement of 2G meters in the electricity distribution service: ▪ No. of 2G meters installed.

- 2G smart meters installed / total meter park.

Efficiency and modernization of the purification sector (sludge reduction, centralization and processing capacity increase, energy efficiency)

Sludge reduction:

- Total sludge (solid and liquid).
- Reduction with respect to base year (2019).

Rationalization of purifying plants:

- % increase of the purifying capacity with respect to base year (2019).
- Decommissioned-centralized purifiers.
- AE affected by the centralization of purifiers.

Energy efficiency interventions:

- Avoided emissions thanks to energy savings in the purifying compartment.

Biomethane production from purification plants:

- Avoided emissions.

Production of renewable energy through composting plant:

- Biogas based electric energy produced and served in the network.
- Installed power.
- Avoided emissions to produce electric energy.

Increase in the waste treatment facility:

- Overall waste treatment capacity in the year.
- Treated waste for the year.
- Compost produced/waste sent to composting plants.
- Secondary raw materials out of treatment plants/Waste coming in plants.

Acea SmartComp:

- No. structures installed.
- Organic waste treated by SmartComp.
- Produced compost by SmartComp.
- Avoided emissions.

Production of electric energy from photovoltaic sources:

- Installed power/Expected power.
- Gross production of electric energy.
- Avoided emissions.

These indicators are qualitative, quantitative and material to the Use of Proceeds categories financed through this bond and in line with the Suggested Impact Reporting metrics by the ICMA Harmonized Framework for Impact Report for Environmental Bonds. This aligns with best market practices.

The list below are impact indicators not aligned with the ICMA HFIR:

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

- Annual percentage change in IRI (post-intervention value/pre-intervention value).
- Activations/Upgrades of MV and/or BT Automation and Remote Control in CS.
- No. of CPs connected to broadband / 70 CPs.
- No. pylons removed.
- Recovered soil in highly biodiverse areas.

Biomethane production from purification plants:

- % upgrading intervention advancement upgrading for North and East Rome.
- Biomethane introduced in the network.

Production of renewable energy through composting plant:

	Gross electric energy produced/waste sent to treatment to the Aprilia, Monterotondo Marittimo, Orvieto plants.
Data sourcing and methodologies of quantitative assessment	To calculate water losses reduction: - Water volume in 2019 - The data is extracted from the management system for determining the water balance. - No. of flow and pressure meters installed during the year - The data is extracted from the management system (Scada). - Reclaimed water network during the year - The data is estimated by the process owner unit based on data extracted from the procurement accounting systems and invoiced users' database. - District water network - The data is extracted from the GIS georeferencing system. To calculate interventions to increase the water system resilience and the security of water supply: - Interventions completed/interventions in the ATO2 scope - The data is estimated by the process owner unit based on the progress of the order and the status of the project authorization process. To calculate energy efficiency in the electricity distribution networks' management: - Saved electricity/Distributed electricity - The data is calculated by the process owner unit considering as primary data the electrical energy saved (data estimated by the Company's energy manager) and the MWh distributed (measured and provided by the Electricity Resource Protection Unit - Balance sheet and process measurements). - Avoided emissions - The data is calculated by the process owner unit considering the electricity saved as primary data (data estimated by the Company's energy manager). - TOE saved - The data is calculated by the process owner unit considering the electricity saved as primary data (data estimated by the Company's energy manager). The data is then stored privately on a database.

To calculate the increased resilience in the electricity distribution network thanks to development, modernization, connectivity and telematic control interventions:

- Annual percentage change in IRI (post-intervention value/pre-intervention value) - The data is calculated by the process owner unit using simulations conducted on the DIgSILENT software.
- Activations/Upgrades of MV and/or BT Automation and Remote Control in CS - The data is extracted from the Appian Software and possibly integrated by the process owner unit with final management files external to the software.
- No. of CPs connected to broadband / 70 CPs - Data calculated and provided by the function that performs the activity.
- No. pylons removed - Data provided by the activity representative based on the finalized works.
- Recovered soil in highly biodiverse areas - Data Calculated by the process owner unit based on the pylons removed and the area occupied by them.

To calculate electric mobility and related services:

- Installed charging column - Data present in the Acea Innovation management files. The column is considered installed from the moment it is connected to the network and can supply electricity.
- Supplied certified electricity through Acea charging columns - Data obtained from the electricity meters relating to the electrical columns that supply it.
- Avoided emissions - Data calculated by the process owner unit considering as primary data the MWh supplied by the electrical columns (obtained from the electricity meters pertaining to the electrical columns that supply it).
- Acea customers who used the platform during the year - E-Mobility Platform – BOMTS.

To calculate the environmental impact reduction from the vehicles of the company's fleet

- Avoided emissions - Data calculated by the process owner unit. The data relating to diesel consumption saved are estimated by the Company's fleet manager, considering the km traveled by the electric cars (data recorded) and the hypothetical diesel consumption for such journeys (17.5 km/l).
- No. electric vehicles - The data derives from the census database of company cars circulating in the year in question held by the process owner unit.

To calculate the replacement of 2G meters in the electricity distribution service:

- No. of 2G meters installed - The data is extracted from the Qlik Application and possibly integrated with data from the process owner.
- 2G smart meters installed / total meter park - The data is calculated by the process owner unit considering the number of meters installed and the total number of meters considered in the meter replacement plan communicated to the Regulatory Authority for Energy, Networks and the Environment (ARERA).

To calculate sludge reduction:

- Total sludge (solid and liquid) - The data is extracted from the waste/declaration management system of the MUD - Single Environmental Declaration Model.
- Reduction with respect to base year (2019) - The data is calculated by the process owner unit based on data extracted from the waste management/declaration of the MUD - Single Environmental Declaration Model.

To calculate the rationalization of purifying plants:

- % increase of the purifying capacity with respect to base year (2019) - The data is calculated by the process owner unit based on the increase in the new purification potential indicated by the discharge authorization.
- Decommissioned-centralized purifiers - The data is calculated by the process owner unit based on the official communications of plant decommissioning made to the Metropolitan City of Rome.

- AE affected by the centralization of purifiers - The data is calculated by the process owner unit based on the potential in terms of equivalent inhabitants from the authorization to discharge the decommissioned purifiers.

To calculate energy efficiency interventions:

- Avoided emissions thanks to energy savings in the purifying compartment - The data is calculated by the process owner unit considering the electrical energy saved as primary data. Energy saving is obtained by calculating the difference between the specific energy consumption (volumetric EnPI) of the reference year and the volumetric EnPi of the previous year, multiplied by the volume in cubic meters of water treated in the reference year.

To calculate the biomethane production from purification plants:

- % upgrading intervention advancement upgrading for North and East Rome - The data is estimated by the process owner unit.
- Biomethane introduced in the network - The data is detected by the biomethane meters injected into the network.
- Avoided emissions - The data is calculated by the process owner unit considering the biomethane injected into the network as primary data.

To calculate the production of renewable energy through composting plant:

- Biogas based electric energy produced and served in the network - The data is measured and comes from the technical administration data collected by the plants/companies.
- Installed power - The data comes from the CENSIMP certifications of TERNA, the Italian TSO.
- Gross electric energy produced/waste sent to treatment to the Aprilia, Monterotondo Marittimo, Orvieto plants - The data is calculated using as primary data the electricity produced and sold to the network from biogas and the waste sent for treatment in the plants where biogas is produced (technical administration data collected by the plants/companies).

- Avoided emissions to produce electric energy - The data is calculated using as primary data the electricity produced and sold to the network from biogas (technical administration data collected by the plants/companies).

To calculate the increase in the waste treatment facility:

- Overall waste treatment capacity in the year - The data derives from the authorizations/technical administration data collected by the controlled plants/companies.
- Treated waste for the year - The data derives from the technical administration data collected from the plants/companies.
- Compost produced/waste sent to composting plants - The data is calculated considering as primary data the compost produced by plants in the composting supply chain and the waste managed by the same plants; these data derive from the technical administration data collected by the plants/companies.
- Secondary raw materials out of treatment plants/Waste coming in plants - The data is calculated considering the selected waste leaving the selection plants and the waste managed by the same plants; these data derive from the technical administration data collected by the plants/companies.

To calculate Acea SmartComp:

- No. structures installed - The data present is in the Acea Innovation management files.
- Organic waste treated by SmartComp - The data is calculated using an internal database provided by Acea Elabori based on the maximum capacity, in tonnes, of the devices.
- Produced compost by SmartComp - The data is calculated by Acea Elabori based on the organic waste treated measured by the composters.
- Avoided emissions - The data is calculated using an internal database, using the treated organic waste measured by the composters as primary data.

To calculate the production of electric energy from photovoltaic sources:

	- Installed power/Expected power - Sum of the installed power (in the year in question) of the PV systems of Acea Produzione, its affiliates and the fully owned and not fully consolidated company AE Sun Capital (whose systems are managed by Acea), compared to the installed power envisaged by the Industrial Plan 2020-2024. - Gross production of electric energy - Data extracted from the production meter remote reading system. - Avoided emissions - Calculated data using an internal database.
Baseline selection	The impact data is compared with relevant baseline, where needed as relevant internal data were used.
Scale and granularity	The impact data is presented at the project type level within each Use of Proceed category for the indicators.

High-level mapping of the impact indicators with the UN Sustainable Development Goals

Based on the project categories financed and refinanced by the bonds as disclosed in the Issuer's Green Bond Allocation & Impact Report, the impact indicator(s) adopted by Acea for its can be mapped to the following SDGs, according to the ICMA "A High -Level Mapping to the Sustainable Development Goals".⁵

IMPACT INDICATORS	SUSTAINABLE DEVELOPMENT GOALS
Water losses reduction: % Reduction of water volume lost (over 2019). - No. of pressure and flow meters installed during the year. - Reclaimed water network during the year. - District water network.	
Interventions to increment the water system resilience and the security of water supply:	

⁵ [ICMA's Mapping-SDGs-to-Green-Social-and-Sustainability-Bonds](#)

- Interventions completed/interventions in the ATO2 scope.

Energy efficiency in the electricity distribution networks' management:

- Saved electricity/Distributed electricity.
- Avoided emissions.
- TOE saved.



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

- Recovered soil in highly biodiverse areas.



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

- Annual percentage change in IRI (post-intervention value/pre-intervention value).
- Activations/Upgrades of MV and/or BT Automation and Remote Control in CS.
- No. of CPs connected to broadband / 70 CPs.
- No pylons removed.



Electric mobility and related services:

- Installed charging columns.
- Supplied certified electricity through Acea charging columns.
- Avoided emissions.
- Acea customers who used the platform during the year.



Environmental impact reduction from the vehicles of the company's fleet

- Avoided emissions.
- No. electric vehicles.



Replacement of 2G meters in the electricity distribution service:

- No. of 2G meters installed.
- 2G smart meters installed / total meter park.



Efficiency and modernization of the purification sector (sludge reduction, centralization and processing capacity increase, energy efficiency)

Sludge reduction:

- Total sludge (solid and liquid).
- Reduction with respect to base year (2019).



Rationalization of purifying plants:

- % increase of the purifying capacity with respect to base year (2019).
- Decommissioned-centralized purifiers.
- AE affected by the centralization of purifiers.

Efficiency and modernization of the purification sector (sludge reduction, centralization and processing capacity increase, energy efficiency)

Energy efficiency interventions:

- Avoided emissions thanks to energy savings in the purifying compartment.



Biomethane production from purification plants:

- % upgrading intervention advancement upgrading for North and East Rome.
- Biomethane introduced in the network.
- Avoided emissions.



Production of renewable energy through composting plant:

- Biogas based electric energy produced and served in the network.
- Installed power.
- Gross electric energy produced/waste sent to treatment to the Aprilia, Monterotondo Marittimo, Orvieto plants.
- Avoided emissions to produce electric energy.



Increase in the waste treatment facility:

- Overall waste treatment capacity in the year.
- Treated waste for the year.
- Compost produced/waste sent to composting plants.
- Secondary raw materials out of treatment plants/Waste coming in plants.



Acea SmartComp:

- Avoided emissions.



Acea SmartComp:

- No. structures installed.
- Organic waste treated by SmartComp.
- Produced compost by SmartComp.



Production of electric energy from photovoltaic sources:

- Installed power/Expected power.
- Gross production of electric energy.
- Avoided emissions.



OPINION

The allocation of the bond's proceeds has been disclosed, with a detailed breakdown across different eligible project categories/asset categories as proposed in the Framework and the Green Bond Allocation & Impact Report has adopted an appropriate methodology to report the impact generated by providing comprehensive disclosure on data sourcing, calculations methodologies and granularity reflecting best market practices. Besides, the impact indicators used align with best market practices using ICMA's HFIR recommended metrics, apart from some indicators used for the Increased resilience in the electricity distribution networks, Biomethane production from purification plants, and Production of renewable energy through composting plants.

DISCLAIMER

1. Validity of the External Review ("External Review"): Valid as long as the cited Allocation and Impact Report as of December 22, 2023 remains unchanged.
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The parent company of Institutional Shareholder Services ("ISS"), ISS HoldCo Inc., has since February 2021 been principally owned by Deutsche Börse AG ("DB") with the remainder

owned by Genstar Capital (“Genstar”) and ISS management. In April 2023, DB announced its intention to combine ISS with Qontigo,

another entity controlled by DB, with General Atlantic to become the sole minority shareholder of the combined entity. The combination is expected to be completed in the third quarter of 2023. In July 2023, the stakes of Genstar and ISS management in ISS HoldCo Inc. were acquired by DB. The non-interference and similar policies implemented by ISS related to Genstar are no longer applicable and disclosures regarding Genstar and ISS management’s ownership of ISS are withdrawn.

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ANNEX 1: Methodology

Review of the post-issuance Reports

The ISS-Corporate Report Review provides an assessment of labelled transactions reporting against international standards using ISS-Corporate proprietary methodology. For more information, please visit: <https://www.issgovernance.com/file/publications/SPO-Report-Reviews.pdf>

High-level mapping to the SDG

The 17 Sustainable Development Goals (SDGs) were endorsed in September 2015 by the United Nations and provide a benchmark for key opportunities and challenges toward a more sustainable future. Using a proprietary method based on ICMA's Green, Social and Sustainability Bonds: A High-Level Mapping to the Sustainable Development Goals, the extent to which the Issuers reporting and project categories contribute to related SDGs is identified.

ANNEX 2: Quality management processes

ISSUER'S RESPONSIBILITY

Issuer's responsibility was to provide information and documentation on:

- Green Bond Allocation & Impact Report
- Green Financing Framework
- Proceeds Allocation
- Reporting Impact Indicators
- Methodologies, and assumptions for data gathering and calculation
- ESG Risk Management

ISS-CORPORATE's VERIFICATION PROCESS

Since 2014, ISS Group, of which ISS-Corporate is part, has built up a reputation as a highly-reputed thought leader in the green and social bond market and has become one of the first CBI approved verifiers.

This independent Report Review has been conducted by following the ICMA Guidelines for Green, Social, Sustainability and Sustainability-Linked Bonds External Reviews, and its methodology, considering, when relevant, the ISAE 3000 (Revised), Assurance Engagements Other than Audits or Reviews of Historical Financial Information.

The engagement with Issuer Name took place in December 2023 and January 2024.

ISS-CORPORATE's BUSINESS PRACTICES

ISS-Corporate has conducted this verification in strict compliance with the ISS Group Code of Ethics, which lays out detailed requirements in integrity, transparency, professional competence and due care, professional behavior and objectivity for the ISS business and team members. It is designed to ensure that the verification is conducted independently and without any conflicts of interest with other parts of the ISS Group.

About this Report Review

Companies turn to ISS-Corporate for expertise in designing and managing governance, compensation, sustainability and cyber risk programs that align with company goals, reduce risk, and manage the needs of a diverse shareholder base by delivering best-in-class data, tools, and advisory services.

We assess alignment with external principles (e.g. the ICMA Green Bond Principles, Social Bond Principles and Sustainable Bond Guidelines), analyze the sustainability quality of the assets and review the sustainability performance of the Issuer themselves. Following these three steps, we draw up an independent Report Review so that investors are as well informed as possible about the quality of the bond/loan from a sustainability perspective.

Learn more: <https://www.isscorporatesolutions.com/solutions/esg-solutions/green-bond-services/>

For information on Report Review services, contact: SPOsales@isscorporatesolutions.com

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