

2023

Half-yearly financial report

June 30, 2023



Half-yearly financial report at June 30, 2023

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Certification of the Half-yearly condensed financial statements pursuant to art. 154-bis, paragraph 5 of Legislative Decree no. 58/98

12 **Independent Auditors'** Report

This is a translation of the Italian original "Relazione finanziaria semestrale al 30 giugno 2023" and has been prepared solely for the convenience of international readers. In the event of any ambiguity the Italian text will prevail.

The Italian original is available at the website gruppoa2a.it



Corporate boards

Board of Directors

Chairman

Marco Emilio Angelo Patuano

Deputy Chairman

Giovanni Comboni

Chief Executive Officer and General Manager

Renato Mazzoncini

Directors

Elisabetta Bombana

Vincenzo Cariello

Maria Elisa D'Amico

Susanna Dorigoni

Fabio Lavini

Elisabetta Pistis

Maria Grazia Speranza

Roberto Tasca

Alessandro Zunino

Board of Statutory Auditors

Chairman

Silvia Muzi

Statutory Auditors

Maurizio Dallocchio

Chiara Segala

Alternate Auditors

Vieri Chimenti

Patrizia Riva

Independent Auditors

EY S.p.A.



Key figures of the A2A Group

1.1

Business Units

The A2A Group operates in the production, sale and distribution of gas and electricity, district heating, environmental services and the integrated water cycle.

These sectors are in turn attributable to the "Business Units" specified in the following scheme identified following the reorganization made by management:

Generation and Trading

- Thermoelectric, hydroelectric and other renewable plants
- Energy Management

Market

- Sale of Electricity and Gas
- Energy efficiency
- Electric mobility

Waste

- Waste collection and street sweeping
- Treatment
- Disposal and energy recovery

Smart Infrastructures

- Electricity networks
- Gas networks
- Integrated water cycle
- District Heating services
- Heat management services
- Development and management of technological infrastructures for integrated digital services
- Public lighting

Corporate

Corporate services

This breakdown into Business Units reflects the organization of financial reports regularly analyzed by management and the Board of Directors in order to manage and plan the Group's business.

Business Units

1.2 Geographical areas of activity

1.3 Group structure

1.4 Financial highlights at June 30, 2023

1.5 Shareholdings

1.6 A2A S.p.A. on the Stock Exchange



1.2 Geographical areas of activity

Plants		
Energy	Thermoelectric	1
	Hydroelectric	₩
	Photovoltaic	
	Wind	
	District heating	①
Environment	Waste-to-energy	
	Waste treatment plant	②
	Material recovery plant	9

Landfill

Biomass

Technological

Biogas production

En	er	ЭУ

Partnership

Waste	Waste collection	a
Distribution and transport	Electricity distribution	•
	Gas distribution	(
	Gas transport	#
Water	Integrated water service	0
Lighting	Public lighting	<u></u>
Electric mobility	e-Moving charging stations	(C)





Lodi

28

















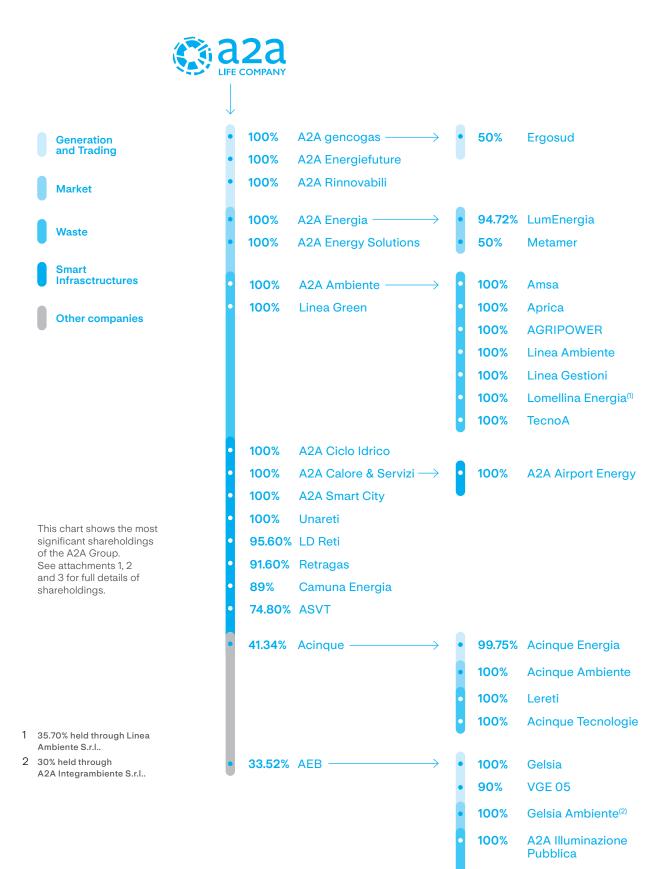








Group structure



100%

RetiPiù

Financial highlights at June 30, 2023 (*)

mIn € Revenues

Result of the period

Net financial position

Gross Operating Income

Earning per share

NFP/EBITDA Rolling

Income statement figures

millions of euro	01 01 2023	01 01 2022
	06 30 2023	06 30 2022
		Restated
Revenues	7,989	9,778
Operating expenses	(6,708)	(8,698)
Labour costs	(401)	(381)
Gross Operating Income - EBITDA	880	699
Depreciation, amortization, provisions and write-downs	(433)	(371)
Net Operating Income - EBIT	447	328
Result from non-recurring transactions	-	157
Financial balance	(68)	(30)
Result before taxes	379	455
Income taxes	(91)	(143)
Net result from discontinued operations	5	43
Minorities	(13)	(27)
Group result of the period	280	328
Gross Operating Income/Revenues	11.0%	7.1%

^(*) The figures serve as performance indicators as required by CESRN/05/178/B

Key figures of the A2A Group

Business Units

Geographical areas of activity

Group structure

highlights at June 30, 2023

1.5 Shareholdings

A2A S.p.A. on the Stock Exchange

For a description of the Alternative Performance Indicators used by the Group, please refer to the Report on Operations at December 31, 2022.

Balance sheet figures

millions of euro	06 30 2023	12 31 2022
Net capital employed	8,815	8,725
Equity attributable to the Group and minorities	4,443	4,467
Consolidated net financial position	(4,372)	(4,258)
Consolidated net financial position/Equity attributable to the Group and minorities	0.98	0.95
Consolidated net financial position / EBITDA Rolling (*)	2.6	2.8

^(*) EBITDA for the last 12 months

Financial data

millions of euro	01 01 2023 06 30 2023	01 01 2022 06 30 2022
Net cash flows from operating activities	392	188
Net cash used in investing activities	(468)	(505)
Free cash flow (Cash Flow Statement figure)	(76)	(317)

Energy scenario

	06 30 2023	06 30 2022
Average of the PUN (Single Nationwide Price) Base load (Euro/MWh)	136.6	248.6
Average of the PUN (Single Nationwide Price) Peak load (Euro/MWh)	146.2	267.4
Average price of gas to the PSV* (Euro/MWh)	47.4	97.8
Average price of emission certificates EU ETS** (Euro/tonne)	89.5	83.7

^(*) Price of gas of reference for the Italian market. (**) EU Emissions Trading System.

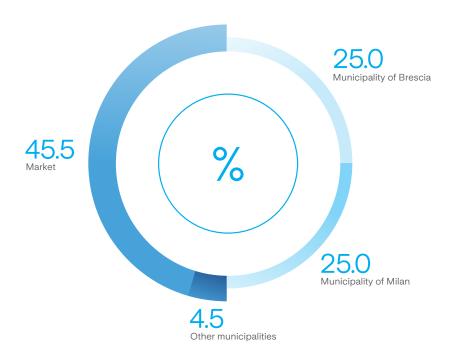
Group's key operational indicators

	06 30 2023	06 30 2022
Generation and Trading		
Thermoelectric production (GWh)	4.990	6.477
Hydroelectric production (GWh)	1.422	1.369
Electricity sold to wholesale customers (GWh)	4.945	7.018
Electricity sold on the Power Exchange (GWh)	6.598	8.468
Market		
Electricity sold to retail customers (GWh)	11.146	10.459
POD Electricity (#/1000)	1.940	1.428
of which POD Electricity Free Market	1.209	1.036
Gas sold to retail customers (Mcm)	1.634	1.526
PDR Gas (#/1000)	1.562	1.573
of which PDR Gas Free Market	1.066	992
Waste		
Waste collected (Kton)	895	919
Residents served (#/1000)	3.900	3.972
Waste disposed of (Kton)	1.809	1.708
Electricity sold by waste-to-energy (GWh)	1.005	1.068
Smart Infrastructures		
Electricity distributed (GWh)	5.401	5.656
Gas distributed (Mcm)	1.440	1.732
Water distributed (Mcm)	35	36
RAB Electricity (M€)	953	827
RAB Gas (M€)	1.578	1.485
Heat sales (GWht)	1.626	1.766
Cogeneration production (GWh)	392	199

- Business Units
- 1.2 Geographical areas of activity
- 1.3 Group structure
- 1.4 Financial highlights at June 30, 2023
- Shareholdings
- 1.6 A2A S.p.A. on the Stock Exchange

1.5

Shareholding (*)



^(*) Sources: Shareholders' Register updated at dividend payment date (May 24, 2023) and communications received in accordance with Art 120 of Legislative Decree February 24, 1998, no. 58 ("TUF")

Key figures of A2A S.p.A.

	06 30 2023	12 31 2022
Share Capital (euro)	1,629,110,744	1,629,110,744
Number of ordinary shares (par value 0,52 euro)	3,132,905,277	3,132,905,277
Number of treasury shares (par value 0,52 euro)	-	-

A2A S.p.A. on the Stock Exchange

A2A S.p.A. in figures (Italian Stock Exchange)

Market capitalisation at June 30, 2023 (millions of euro)	5,241
Share capital at June 30, 2023 (shares):	3,132,905,277

	First six months of 2023	Last 4 quarters
Average market cap (millions of euro)	4,661	4,174
Average daily volumes (shares)	11,049,120	9,737,693
Average price (€/share)	1.49	1.33
Maximum price (€/share)	1.70	1.70
Minimum price (€/share)	1.27	0.95

Source: Bloomberg.

A2A stock is also traded on the following platforms: Aquis, CBOE, Equiduct, ITG Posit, Sigma-X, Turquoise.

On May 24, 2023 A2A distributed a dividend equal to 0.0904 euro per share.

A2A forms part of the following indices

FTSE MIB
STOXX Europe 600
STOXX Europe 600 Utilities
EURO STOXX
EURO STOXX Utilities
MSCI Europe Small Cap
WisdomTree International Equity
S&P Global Mid Small Cap

ESG Indices

MIB ESG
FTSE4Good
ECPI Indices
Ethibel Sustainability Index Excellence Europe
EURO STOXX Sustainability
Euronext Vigeo Index: Eurozone 120
Standard Ethics Italian Index
Bloomberg Gender Equality Index
Solactive Climate and Energy Transition Index

Source: Bloomberg and company information.

A2A obtained the following ratings:

Assessment	Rating ESG
CDP Climate Change	A-
CDP Water	A-
FTSE ESG Rating	3,7/5
ISS ESG	B-
MSCI	ВВ
Refinitiv	B+
Standard Ethics	EE+
S&P CSA	77/100
Sustainalytics	21.0/40
Vigeo	64/100

Debt Rating

	Current
M/L Term Rating	BBB
Short Term Rating	A-2
Outlook	Negative
M/L Term Rating	Baa2
Outlook	Negative
	Short Term Rating Outlook M/L Term Rating

Source: rating agencies.

Moreover, A2A has been included in the Ethibel Excellence Investment Register and in the Ethibel Pioneer Investment Register.

Business Units

Geographical areas of activity

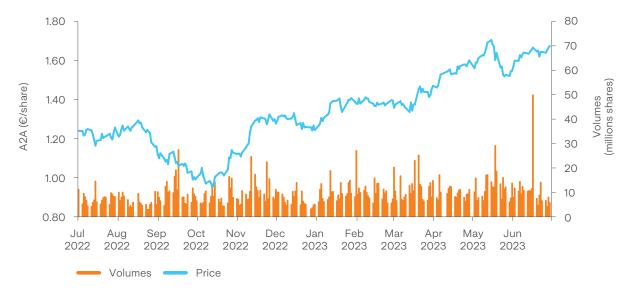
Group structure

Financial highlights at June 30, 2023

Shareholdings

1.6 A2A S.p.A. on the Stock Exchange

A2A: price and volumes



A2A vs FTSE MIB and EURO STOXX UTILITIES



Source: Bloomberg.

In the first half of 2023, global equity markets performed very positively, thanks to less negative expectations of a recession and lower energy prices resulting in a partial decrease in inflation, albeit still at high levels. The latter prompted central banks to slow the pace of interest rate hikes (during the period, the European Central Bank raised its benchmark rate by 150bps and the Federal Reserve by 75bps).

The FTSE MIB gained 19.1% and recorded the best performance among the major European indices, supported by the positive performance of the banking, consumer, telecom, capital goods and utilities sectors. By contrast, the oil sector contracted, which was affected by the downward trend in oil prices. The performance of the Nasdaq was significant (+31.7%), buoyed by major technology stocks and Artificial Intelligence (AI) topics, while the trend of the S&P 500 (+15.9%) was in line with European markets. The London stock exchange was largely unchanged (FTSE 100 +1.1%).

Italian utilities outperformed European utilities (+15.4% vs. +8.5%) thanks to the performance of multi-utility stocks, which were particularly penalized in 2022 by the energy scenario and rising interest rates.

The A2A share closed the half-year at 1.67 euro (+34.4%), outperforming the FTSE MIB and other companies in the sector, supported by the positive reception of results and the upward revision of corporate expectations for the 2023 financial year. In June, the share price recovered almost entirely from the drop in the second half of May, due to investors' profit-taking and the detachment of the coupon (0.0904 euro).

Sustainability and sustainable finance

Sustainability and sustainable finance

One year after the outbreak of the Ukrainian crisis which brought new geopolitical, economic and social instabilities to Europe, A2A has kept sustainability and its Life Company purpose at the center of its strategy and daily operations.

On April 28, 2023, the seventh Group Integrated Report was presented to the A2A Shareholders' Meeting, which for the sixth year, is also the Non-Financial Disclosure pursuant to Legislative Decree 254/16. This document continues to be drawn up according to rigorous and internationally shared standards and methodologies, in particular the Integrated Reporting Framework (IR Framework) and the international standards of the Global Reporting Initiative (GRI). In this edition, in line with the Group Strategy, the long-term Sustainability Plan 2022-2030 was updated, which, in addition to incorporating the sustainability objectives contained in the Strategic Plan updated in November 2022, includes more specific objectives linked to its "enabling levers", i.e.: Digital, People and Governance. In addition, for the third year, a new section has been included dedicated to the management of financial risks connected with climate change, in line with the recommendations of the Task Force on Climate-related Financial Disclosure (TCFD), with the aim of providing the world of finance with all the information it needs to properly assess A2A's strategy for managing climate-related risks and opportunities. Moreover, with a view to anticipating the regulatory changes that will be introduced by the Corporate Sustainability Reporting Directive (CSRD), in the 2022 Annual Report, A2A published its own assessment of relevant issues according to the logic of dual materiality, which intersects the impact dimension of the issues with an economicfinancial assessment. This first assessment made it possible, on the one hand, to increase transparency regarding the criteria for assessing and prioritizing sustainability issues and, on the other hand, to implement a process that will be refined in future reporting cycles, so as to respond punctually to regulations when they become mandatory.

The Group's Integrated Report won the second edition of the Sustainability Report Award, the initiative promoted by Corriere della Sera and Buone Notizie conducted in collaboration with NeXt Nuova Economia with the aim of fostering the proper promotion and dissemination of sustainability issues and ESG development strategies. The Sustainability Report Award recognizes companies and organizations, which are systematically and punctually committed to the implementation of the ecological transition and by virtue of this have chosen to submit their work to evaluation. Specifically, A2A received a special mention for the category 'Best CO2 Emission Reduction Policy' in the Sustainability Report Award 2023. In addition, at the annual CCH Tagetik InTouch event, A2A was awarded in the 'ESG Front Runner' category as a pioneer in the use of the Tagetik solution in ESG and EU Taxonomy reporting and to support the definition of strategic ESG targets. This recognition is the result of the Group's ongoing commitment to periodic and transparent reporting on actions taken and results achieved.

Environmental

Despite the contingent situation, the Group wished to reaffirm its commitment to the decarbonization pathway and on November 22, 2022 A2A approved the update to the 2021-2030 Strategic Plan, which confirmed the target of zero direct and indirect emissions (Scope 1 and 2) generated by the Group to 2040. Through the further development of renewable energies, carbon capture solutions and the phase-down of carbonintensive businesses, the Group will be able to achieve the ambitious Net Zero target of 2040 10 years ahead of EU targets. In 2022, in fact, the Group started working on the definition of a specific roadmap to achieve this goal and on the testing of carbon capture technologies. A2A Ambiente and A2A S.p.A. were awarded Hercules funding under the European Horizon research funding schemes. This project, which involves 27 partners from 10 European countries, includes a five-year plan of studies to test new solutions in the CO2 capture, transport, utilization and storage (CCUS - Carbon Capture Utilization and Storage) supply chain in order to implement a scalable industrial process, envisages the small-scale realization of an experimental prototype for CO2 capture using calcium oxide (CaO) at the Silla 2 waste-to-energy plant in Milan. On February 15, 2023, the project was officially launched at the Piacenza campus of the Politecnico di Milano, with Laboratorio Energia e Ambiente Piacenza (LEAP), a consortium company owned by Polimi, as coordinator.

During the first half of 2023, the Group continued to act as a facilitator of the infrastructural growth of cities and their simultaneous decarbonization. April 2023 saw the inauguration of the first series of City Plug columns in Brescia, thus promoting the development of private electric mobility in urban contexts with an increasingly capillary and innovative recharging network, accessible also to electric cars with small batteries and plug-in hybrids. The aim is indeed to offer a more widespread and affordable service, sustainable for the city and for those who decide to drive electric. Furthermore, our Group joined Eurogas to renew its commitment to decarbonization and to strengthen European interlocutions.

Social

As part of the Group's stakeholder engagement activities, the Territorial Roadshow of the Multistakeholder Forums, a path of dialogue with the main stakeholders in the main territories where A2A is present, was also proposed in 2023.

The path, started in 2021 with The European House Ambrosetti, has been imagined as a circular scheme that can be replicated over the years. For this reason, for 2023, mirroring what was done last year, listening activities have been planned, starting from the format of the Svolte Giuste, in the six 'historic' territories of the North (Cremona, Bergamo, Brescia, Valtellina-Valchiavenna, Milan, Friuli Venezia-Giulia and Piedmont) and activities to build projects between A2A and its stakeholders in the three territories of the South (Calabria, Sicily and Apulia), enriching the program with two new stages: Cremona (former

Sustainability and sustainable finance

2.1 Sustainability and sustainable finance

LGH area) and Seregno, for a total of eleven stages. In the first six months, 4 forums out of the planned 11 were organized and held. The first, in April, in Cremona to listen to stakeholders from the South Lombardy area (formerly LGH), Bergamo, Calabria and Sicily. In the last three mentioned territories, the Territorial Sustainability Reports 2022 were also presented in order to report on the Group's activities in the respective localities.

Considering the nationwide stakeholder engagement activities, in the first six months of 2023, the Sustainability Stakeholder Engagement structure, in synergy with other Group areas, developed the new project: "Life Talks". The objective of the format, which includes three appointments, is to focus on responsible resource management and the safeguarding of the essential elements of life and the very pillars of a Life Company: Energy, Water and Environment. The first event was held on July 10 with the focus on the resource "water". The topic was discussed in depth with industry experts, researchers, scientists and key opinion leaders.

During the first half of 2023, educational activities dedicated to schools continued in line with the educational offer started in the 2022/23 school year.

Between April and May, the two national educational projects aimed at all schools in Italy were completed: "Storie Sostenibili" and "Ecogame A2A – Economia circolare".

Also in May, the School Engagement Tour ended: 8 stages, from north to south between 2022 and 2023, to discover A2A's most innovative plants. The cycle of webinar meetings for teachers has ended and 28 Intercultura scholarships have been made available for summer programs of linguistic study with a STEAM address abroad, reserved for deserving young male and female students.

In March, the second virtual plant tour dedicated to the Brescia thermal utilizer was published. At the same time, the third virtual voyage of discovery of renewable energies - wind and photovoltaics - was launched. In June, the development of the fourth virtual tour on the topic of hydroelectric was started. Educational visits to A2A plants in the first six months were very well attended: over 11,000 visitors including students and teachers.

Territorial projects were also concluded: "Tutti in campo per il nostro pianeta!" for schools in Brescia and Bergamo, "#AmbienteaScuola" in Milan and "Scuole in Mostra" in Acerra.

The 40-hour certified PCTO (Percorsi per Competenze Trasversali e per l'Orientamento) digital pathway, launched in the 2022/23 school year and dedicated to secondary schools, ends in July.

Governance/finance

In 2022, the company has also been confirmed in nine ESG ethical indices (MIB ESG, FTSE4Good Index, ECPI ESG Equity, Ethibel Sustainability Index Excellence Europe, EURO STOXX Sustainability Index, Euronext Vigeo Index, Eurozone 120, Standard Ethics Italian Index, Solactive Climate Change Index, Bloomber Gender Equality Index).

In June 2023, moreover, Standard Ethics, an independent rating agency that measures corporate sustainability, announced that it has reconfirmed A2A's Corporate Rating to 'EE+' with a 'Positive' outlook, positioning A2A as the company in its sector with the highest rating.

A2A has a Sustainable Finance Framework, updated in February 2022.

The Sustainable Finance Framework, which represents the set of guidelines that strengthen the link between the Group's financial strategy and sustainable strategy, combines two approaches: the Green-Use of Proceeds, which allows utmost transparency regarding the use of proceeds for specific projects, and the Sustainability-Linked component, which allows an overall reading of the Group's longer-term strategy, linking debt instruments to one or more of the Group's sustainability objectives.

The Sustainable Finance Framework, which covers any type of financial instrument, has been prepared in compliance with the Green Bond Principles (2021) and Sustainability-Linked Bond Principles (2020) published by the International Capital Market Association (ICMA), and the Green Loan Principles (2021) and Sustainability-Linked Loan Principles (2021) published by the Loan Market Association (LMA).

Vigeo Eiris, now Moody's, one of the leading international ESG rating agencies, issued a Second Party Opinion confirming the robustness of the Sustainable Finance Framework and attesting its alignment with ICMA and LMA principles. The agency also highlighted A2A's commitment to the development of sustainable finance and its "Advance" position as an issuer.

During the first half of the year, A2A issued a new 500 million euro Green Bond, the net proceeds of which will go to finance Eligible Green Projects: strategic circular economy and energy transition projects linked to the development of renewables, the environmental sector, energy efficiency and electricity networks defined within A2A's Sustainable Finance Framework. The Group selected projects eligible for the European Taxonomy - the EU regulation listing economic activities that can be considered sustainable.

As a result of these operations, the share of ESG debt in total gross debt at June 30, 2023 was 66%.



Consolidated results and report on operations

Summary of results, assets and liabilities and financial position

Results

It is noted that the consolidation scope as at June 30, 2023 changed compared to December 31, 2022 for to the following operations:

- the acquisition by AEB S.p.A. of 90% of VGE 05 S.r.l., a company operating in the photovoltaic sector, with the consequent line-by-line consolidation:
- the acquisition by A2A Calore & Servizi S.r.l. of 100% of Termica Cologno S.r.l. with the consequent line-by-line consolidation;
- incorporation of the company A2A Servizi S.r.l. by A2A S.p.A., which owns 100% of it, consolidated on a line-by-line basis.

Moreover, the economic figures at June 30, 2023 are not consistent with the corresponding period of the previous year due to the following extraordinary transactions in 2022:

- acquisition, in september 2022, and line-by-line consolidation by A2A Calore & Servizi S.r.l. of 100% of A2A Airport Energy S.p.A., a
 company engaged in the production and sale of electricity, heat and cooling;
- acquisition by A2A Rinnovabili S.p.A. of 100% of 4New S.r.l. and 3 New & Partners S.r.l., companies operating in the photovoltaic and wind power sectors, consolidated as of June 2022. A2A Rinnovabili S.p.A. also acquired, through its subsidiary 3 New & Partners S.r.l., 100% of 3 New & Partners Rinnovabili S.r.l. (a company incorporated in November 2022) resulting in the line-by-line consolidation, as of November 2022, of Daunia Calvello S.r.l. and Daunia Serracapriola S.r.l., companies that hold a portfolio of wind farms in Italy, previously consolidated at equity.

It should be noted that certain income statement items, referring to assets related to the integrated water service in accordance with IFRS 5, have been reclassified to "Net result from discontinued operations". As a result, the values as at June 30, 2022 have been restated

millions of euro	01 01 2023 06 30 2023	01 01 2022 06 30 2022 Restated	Change	% 2023/2022
Revenues	7,989	9,778	(1,789)	(18.3%)
of which:				
- Revenues from the sale of goods and services	7,904	9,683	(1,779)	(18.4%)
- Other operating income	85	95	(10)	(10.5%)
Operating expenses	(6,708)	(8,698)	1,990	(22.9%)
Labour costs	(401)	(381)	(20)	5.2%
Gross Operating Income - EBITDA	880	699	181	25.9%
Depreciation, amortization and write-downs	(381)	(349)	(32)	9.2%
Provisions	(52)	(22)	(30)	n.s.
Net Operating Income - EBIT	447	328	119	36.3%
Result from non-recurring transactions	-	157	(157)	(100.0%)
Net financial balance	(69)	(32)	(37)	n.s.
Affiliates	1	2	(1)	(50.0%)
Result before taxes	379	455	(76)	(16.7%)
Income taxes	(91)	(143)	52	(36.4%)
Result after taxes from operating activities	288	312	(24)	(7.7%)
Net result from discontinued operations	5	43	(38)	(88.4%)
Minorities	(13)	(27)	14	(51.9%)
Group result of the period	280	328	(48)	(14.6%)

In the first half of 2023, Group **Revenues** amounted to 7,989 million euro, down 18% compared to the same period of the previous year (9,778 million euro). The change is attributable to the reduction in revenues in the wholesale energy markets both due to the lower unit prices and the lower volumes sold and traded of commodities, partially offset by the higher quantities sold of electricity and gas in the retail markets and by the contribution of the consolidation of A2A Airport, a company acquired in September 2022.

Consolidated results and report on operations

3.1 Summary of results, assets and liabilities and financial position

Significant events during the period

3.3 Significant events after June 30, 2023

3.4 Impacts of the Russia-Ukraine conflict

3.5 Climate change

3.6 Taxonomy

3.7 Outlook for operations

Operating expenses amounted to 6,708 million euro, down 23% compared to the same period of the previous year. The change, mirroring the decrease in revenue, is almost entirely due to the decrease in raw material procurement costs as a result of lower commodity prices.

Labour costs increased by about 20 million euro (+5%), to 401 million euro: the change was mainly due to the higher number of FTE in the first half of 2023 compared to the previous year (+472 FTE, +4%) as a result of recruitment in the second half of 2022 and in the first six months of this year to strengthen certain structures and business areas, in line with the Group's development needs and objectives.

EBITDA equalled 880 million euro, an increase of 26%, +181 million compared to the first six months of 2022 (699 million euro).

Net of non-recurring items (+12 million in the first half of 2023, +17 million euro in the corresponding period of 2022), the Gross Operating Margin amounted to 868 million euro, an increase of 27% compared to the first half of 2022 (682 million euro) thanks to the excellent performance of the Generation & Trading Business Unit and the progressive recovery of the Market Business Unit after the extraordinary drop of the previous year.

The following table shows the composition of the Gross Operating Margin by Business Unit.

millions of euro	06 30 2023	06 30 2022 Restated	Delta	Delta %
Generation & Trading	307	221	86	38.9%
Market	122	8	114	n.s.
Waste	203	207	(4)	(1.9%)
Smart Infrastructures	270	276	(6)	(2.2%)
Corporate	(22)	(13)	(9)	n.s.
Total	880	699	181	25.9%

The Gross Operating Margin of the Generation and Trading Business Unit amounted to 307 million euro, an increase of 86 million euro compared to the first half of 2022 (+39%). Net of the non-recurring items recorded in the two comparison periods (5 million euro in the first half of 2023, zero effect in the same period of 2022), the Ordinary Gross Operating Margin increased by 81 million euro.

The positive change is mainly attributable to:

- hedging strategies, mainly on thermoelectric sources (CCGT and Coal), which made it possible to offset the reduction in the energy scenario;
- higher output of the Monfalcone coal plant;
- contribution of newly acquired photovoltaic and wind power plants.

The positive impacts were partly offset by a decrease in margins on the ancillary services markets (MSD) due to lower requests from Terna and by the lower contribution of combined cycle thermoelectric production.

EBITDA of the Market Business Unit equalled 122 million euro (8 million euro at June 30, 2022).

Net of non-recurring items (-1 million euro in the first half of 2023 and +1 million euro in the same period of 2022), the Ordinary Gross Operating Margin increased by 116 million euro.

The growth in margins for the first half of 2023 compared to the same period last year was attributable to:

- positive unit margins that fully recover the contraction recorded in the first half of 2022 mainly due to the different time distribution of fixed-price sales margins, confirming the assumptions of an overall contractual margin on an annual or two-year basis;
- positive contribution of the large customer segment;
- higher volumes of electricity sold to safeguarded customers;
- increased mass-market customer base.

In general, the comparison with the previous year benefits from a progressive return to normality of the energy markets compared to the exceptional nature recorded in 2022, with a recovery in profitability exceeding the levels achieved in the first half of 2021.

The Gross Operating Margin of the Waste Business Unit amounted to 203 million euro (207 million euro at June 30, 2022), a decrease of 4 million euro compared to the same period of the previous year.

Net of the non-recurring items recorded in the two comparison periods (+2 million euro in 2023 and +2 million euro in 2022), the Ordinary Gross Operating Margin amounted to 201 million euro (205 million euro at June 30, 2022).

This result was determined by:

- +3 million euro related to the Collection segment mainly due to lower costs for disposal of the organic fraction of waste;
- -6 million euro related to Waste Treatment Plants mainly due to the lower availability of plants, in particular the Acerra and Parona waste-to-energy plants, higher biomass costs partially offset by the positive energy scenario effect, and an increase in the price of
- -1 million euro related to the Industrial Waste Treatment Plants segment, for lower deliveries at the landfill of inert lots of Corteolona.

The Gross Operating Margin of the Smart Infrastructures Business Unit in the first half of 2023 was 270 million euro (276 million euro at June 30, 2022).

Net of non-recurring items (+7 million euro in the first half of 2023; +16 million euro in the same period of the previous year), the Ordinary EBITDA of the Business Unit reached 263 million euro, up 3 million euro with respect to the first six months of 2022.

The change in margins was mainly driven by:

- +7 million euro related to the electricity distribution network due to an increase in revenue allowed for regulatory purposes as a result of increased investments and inflation, revenue from loss equalization and higher connection contributions;
- +7 million euro related to the gas distribution network due to an increase in the revenue constraint allowed for regulatory purposes and lower energy costs:
- -10 million related to the heat segment, due to lower district heating volumes sold and lower unit margins. This contraction in margins was partly neutralized by the benefits of the tax credits for non-energy and non-gas-consuming companies under the Aid Decrees, and by the contribution of the new company A2A Airport.

"Depreciation, amortization, provisions and write-downs" totalled 433 million euro (371 million euro at June 30, 2022), representing an increase of 62 million euro.

"Depreciation, amortization and write-downs" amounted to 381 million euro (349 million euro at June 30, 2022).

Amortization of intangible assets amounted to 130 million euro (107 million euro at June 30, 2022). Amortization and depreciation increased by 23 million euro, of which 8 million euro related to the integrated water service and gas distribution and metering, 6 million euro to the implementation of information systems, 6 million euro to changes in the scope of consolidation, and 3 million euro to the new customer lists of Yada Energia and A2A Energia.

Depreciation of tangible assets show an increase of 9 million euro compared to June 30, 2022 and includes:

- higher depreciation of 10 million euro resulting from the first consolidation of the companies acquired in 2022;
- higher depreciation of 8 million euro, mainly relating to the investments, which went into production after June 30, 2022;
- higher depreciation of 2 million euro for rights of use;
- lower depreciation of 4 million euro following the change of the useful life of the San Filippo del Mela plant to 2025;
- lower depreciation of 4 million euro related to the increase in discount rates on the closure/post closure provisions for landfills and decommissionina:
- lower depreciation of 3 million euro related to the disinvestment plan for the assets of the Linea 1 waste-to-energy treatment and storage plant in Parona.

The "Provisions for risks" had a net effect of 15 million euro (net positive effect of 24 million euro at June 30, 2022) due to accruals for the period of 19 million euro relating to the provision for public water derivation fees of 13 million euro, provisions for closure and postclosure expenses on landfills of 3 million euro and other provisions of 3 million euro, adjusted by surpluses of 4 million euro mainly as a result of the release of provisions for closure and post-closure expenses on landfills and decommissioning.

The "Bad debt provision" amounted to 37 million euro (46 million euro at June 30, 2022), consisting of the accrual for the period.

As a result of these changes "Net operating income" amounted to 447 million euro (328 million euro for the year ended June 30, 2022).

The "Result from non-recurring transactions" was nil. It amounted to 157 million euro at June 30, 2022 and referred to the gain deriving from the sale of three properties located in Milan, which took place in February 2022.

3

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"Net financial charges" amounted to 69 million euro (32 million euro at June 30, 2022), representing an increase of 37 million euro. This increase is mainly attributable to higher interest on bonds as a result of the bond issues made during 2022 (totalling 1,750 million euro) and the 500 million euro bond issue made during the first quarter of 2023.

The "Affiliates" was 1 million euro (2 million euro at June 30, 2022), and is mainly attributable to the positive valuation of the shareholdings held in some associated companies.

valuation of the shareholdings held in some associated companies.

- "Income taxes" in the period in question equalled 91 million euro (143 million euro at June 30, 2022) and include:
- taxes of the period totaling 152 million euro;
- deferred tax assets of -56 million euro;
- deferred tax liabilities of -5 million euro.

It is highlighted that on the occasion of the closing of the 2023 half-year report, the A2A Group decided to estimate the tax for the period for all Group companies by adopting the tax rate criterion based on the best estimate of the Group's weighted average rate expected for the entire year.

It should be noted that in the period under review, the possibility was exercised, pursuant to Article 15, paragraphs 10 et seq. of Legislative Decree No. 185/2008, to revalue, or recognise, the higher tax values of controlling interests arising from the Purchase Price Allocation (PPA) process and recognized in the consolidated financial statements as goodwill and other intangible assets.

Against the payment of the substitute tax of 33 million euro, the derogatory revaluation resulted in the recognition of net deferred tax assets of 56 million euro, relating to off-balance-sheet deductions of the higher revalued values. These deferred tax assets will be released pro rata in connection with off-balance-sheet deductions starting in 2025.

The "Net result from discontinued operations" amounted to 5 million euro (43 million euro as at June 30, 2022) and refers to the reclassification of revenues, operating costs and depreciation and amortisation related to the integrated water service held for sale. The value at June 30, 2022 has been restated and refers to the gain related to the sale of some assets concerning gas distribution referring to ATEM considered non-strategic for the Group for 36 million euro and for 7 million euro to the items concerning the integrated water service reclassified for the purposes of a homogeneous comparison.

The "Group result of the period", after the minorities of 13 million euro were deducted, was positive and amounted to 280 million euro (positive for 328 million euro at June 30, 2022).

Below is the income statement table with evidence of the special items that influenced both the result at June 30, 2023 and the result at June 30, 2022, thus enabling a clearer representation of the performance of the core business.

millions of euro	01 01 2023 06 30 2023	01 01 2022 06 30 2022 Restated	Change	% 2023/2022
Revenues	7,989	9,778	(1,789)	(18.3%)
Operating expenses	(6,708)	(8,698)	1,990	(22.9%)
Labour costs	(401)	(381)	(20)	5.2%
Gross Operating Income - EBITDA	880	699	181	25.9%
Depreciation, amortization and write-downs	(381)	(349)	(32)	9.2%
Provisions for risks	(15)	24	(39)	n.s.
Provisions for credit risks	(37)	(46)	9	(19.6%)
Net Operating Income - EBIT	447	328	119	36.3%
Net financial balance	(69)	(32)	(37)	n.s.
Affiliates	1	2	(1)	(50.0%)
Result before taxes	379	298	81	27.2%
Income taxes	(114)	(85)	(29)	34.1%
Net result from discontinued operations	5	9	(4)	(44.4%)
Minorities	(13)	(27)	14	(51.9%)
Ordinary Group Net Profit	257	195	62	31.8%
Special Items	23	133	(110)	(82.7%)
Group result of the period	280	328	(48)	(14.6%)

Special items in the first half of 2023, equal to 23 million euro, refer to the effect of the release of the higher tax values of part of the goodwill of the renewable companies;

Special items in the first half of 2023, equal to 133 million euro refer to the gain, net of taxation, on the sale of certain assets (sale of properties and ATEM deemed non-strategic) and the impacts of the so-called "Decree Taglia Prezzi".

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For changes in the scope of consolidation at June 30, 2023, reference should be made to the section "Income statement" in this Summary of the financial position, results of operations and cash flows.

Sources/Uses statement

millions of euro	06 30 2023	12 31 2022	Change
Capital employed			
Net fixed capital	8,919	8,849	70
- Tangible assets	6,241	6.162	79
- Intangible assets	3,456	3,515	(59)
- Shareholdings and other non-current financial assets (*)	82	82	(00)
- Other non-current assets/liabilities (*)	(307)	(296)	(11)
- Deferred tax assets/liabilities	430	363	67
- Provisions for risks, charges and liabilities for landfills	(747)	(729)	(18)
- Employee benefits	(236)	(248)	12
of which with counter-entry to equity	(102)	(112)	12
Net Working Capital and Other Current Assets/Liabilities	(147)	(124)	(23)
Net Working Capital	5	(308)	313
- Inventories	290	536	(246)
- Trade receivables	2,696	4,680	(1,984)
- Trade payables	(2,981)	(5,524)	2,543
Other current assets/liabilities	(152)	184	(336)
- Other current assets/liabilities (*)	19	283	(264)
- Current tax assets/tax liabilities	(171)	(99)	(72)
	3	27	(72)
of which with counter-entry to equity Assets/liabilities held for sale (*)	43	-	43
of which with counter-entry to equity	43		43
Total Capital employed	8,815	8.725	90
Sources of funds	0,013	0,723	90
	4.442	4.467	(2.4)
Shareholders' equity	4,443	4,467	(24)
Total financial position after one year	5,500	5,834	(334)
Total financial position within one year Total Net Financial Position	(1,128)	(1,576)	
	4,372	4,258	114
of which with counter-entry to equity	(11)	(10)	22
Total Sources	8,815	8,725	90

^(*) Excluding balances included in the Net Financial Position.

Net fixed capital

Net fixed capital amounted to 8,919 million euro, up 70 million euro compared to December 31, 2022.

Changes are detailed below:

- Tangible assets increased by 79 million euro due to:
- investments made for 309 million euro due to interventions on waste treatment and waste-to-energy plants, on thermoelectric and hydroelectric plants and on renewable source energy plants for 150 million euro, to the development and maintenance of electricity distribution plants, the expansion and reconstruction of the medium and low voltage network, and the installation of new electronic meters for 84 million euro, the development of district heating networks for 37 million euro, the purchase of movable means to collect waste and other equipment for 15 million euro, works on the fiber optic and gas transport network for 6 million euro,

investments aimed at developing the energy efficiency plan for 4 million euro, 3 million euro for the efficiency plan with new LED technology light sources and 3 million euro for investments in the electric vehicle charging network as well as work on buildings for 6 million euro and the implementation of telecommunications equipment for 1 million euro;

- net increase for other changes of 25 million euro due to the increase of 22 million euro in usage rights in accordance with IFRS 16, an increase of 10 million euro in the provision for decommissioning and landfill closure and post closure expenses, a decrease of 3 million euro due to the recognition of grants on investments from previous years, a decrease of 2 million euro due to reclassifications to other balance sheet items, and a decrease of 2 million euro due to the reclassification of certain renewable energy assets to assets held for sale;
- · decrease of 4 million euro arising from disposals in the period, net of accumulated depreciation;
- a decrease of 251 million euro for the depreciation charge for the period;
- Intangible fixed assets decreased by 59 million euro with respect to December 31, 2022, due to:
- investments made amounting to 185 million euro, due to development and maintenance of gas distribution systems and the
 replacement of underground medium and low pressure pipes for 63 million euro, the implementation of information systems for 56
 million euro, works on the water transport and distribution network, sewage networks and treatment plants for 47 million euro; 19
 million euro for costs incurred for new acquisitions and maintenance of the customer portfolio;
- · first-time consolidation of period acquisitions, accounting for a 17 million euro increase;
- a decrease of 81 million euro following the sale of the ASVT S.p.A. integrated water service assets under concession to Acque Bresciane:
- a net decrease of 47 million euro for other changes, due to the reclassification to assets held for sale of certain assets pertaining to the integrated water service in the amount of 32 million euro, a decrease of 13 million euro in environmental certificates for the industrial portfolio, and a decrease of 2 million euro due to the recognition of grants on investments from previous years;
- · decrease of 3 million euro arising from disposals in the period, net of accumulated depreciation;
- a decrease of 130 million euro for the depreciation charge for the period;
- Shareholdings and other non-current financial assets amount to 82 million euro and show no changes compared to the previous year. This item includes investments accounted for using the equity method, investments in Corporate Venture Capital and other non-current financial assets not included in the Net Financial Position;
- Other non-current Assets and Liabilities show a net increase of 11 million euro due to an increase in security deposits from customers of 25 million euro, a decrease in receivables for past due items related to water service revenues of 3 million euro, partially offset by an increase in receivables from Ecobonus of 14 million euro, and other decreases in non-current liabilities of 3 million euro;
- Deferred tax assets amounted to 430 million euro (363 million euro at December 31, 2022) and showed a net increase of 67 million euro due mainly to the recognition of 56 million euro in net deferred tax assets in the financial statements of the subsidiary A2A Rinnovabili S.p.A.. It should be noted that in the period under review, the possibility was exercised, pursuant to Article 15, paragraphs 10 et seq. of Legislative Decree No. 185/2008, to revalue, or recognise, the higher tax values of controlling interests arising from the Purchase Price Allocation (PPA) process and recognized in the consolidated financial statements as goodwill and other intangible assets. Against the payment of the substitute tax of 33 million euro, the derogatory revaluation resulted in the recognition of net deferred tax assets of 56 million euro, relating to off-balance-sheet deductions of the higher revalued values. These deferred tax assets will be released pro rata in connection with off-balance-sheet deductions starting in 2025;
- as at June 30, 2023, Provision for risks, charges and liabilities for landfills amounted to 747 million euro and showed an increase of 18 million euro. The change for the period was due to net accruals for the period of 15 million euro, mainly related to accruals for hydroelectric derivation surcharges, the contribution of first-time consolidations of 2 million euro, other increases of 19 million euro related mainly to decommissioning provisions following the updating of certain appraisals, and other changes of 4 million euro. These increases are partly offset by uses in the period for 18 million euro, of which 11 million euro relating to the incurrence of decommissioning and landfill costs and 7 million euro to the conclusion of some disputes;
- Employee benefits decreased by 12 million euro, due to disbursements during the half-year and payments to pension funds and actuarial valuations, net of allocations during the period.

Net Working Capital and Other current assets/liabilities

The "Net Working Capital", defined as the algebraic sum of trade receivables, closing inventories and trade payables, amounted to 5 million euro, up 313 million euro compared to December 31, 2022. Comments on the main items are given below:

• "Inventories" amounted to 290 million euro (536 million euro as at December 31, 2022), net of the related obsolescence provision for 24 million euro, down 246 million euro compared to December 31, 2022. The decrease is attributable to the lower inventories of fuels for the production of electricity and gas inventories for sales and storage for 252 million euro, due to the reduction in market prices, an increase in inventories of materials for 3 million euro, higher inventories of fuels with third parties for 4 million euro and other decreases for 1 million euro;

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- "Trade receivables" amounted to 2,696 million euro (4,680 million euro at December 31, 2022), with a decrease of 1,984 million euro. The change in trade receivables is mainly attributable to the reduction in tariffs for the sale of electricity and gas that took place during the half year as well as to the seasonal nature of the business. The "Bad debt provision", calculated in compliance with IFRS 9, of 218 million euro increased by a net 26 million euro with respect to December 31, 2022, due to net provisions for 37 million euro and period uses for 11 million euro:
- "Trade payables" amounted to 2,981 million euro, a decrease of 2,543 million euro. This change is mainly attributable to seasonality dynamics, as well as energy commodity prices;
- "Other current assets/liabilities" evidenced a net decrease of 336 million euro due to:
- a net decrease in derivative assets of 135 million euro, attributable to a reduction in fair value valuation due to
 a lower average difference between subscription prices and market prices;
- net decrease of 124 million euro in tax receivables for VAT, excise duties and other indirect taxes;
- net decrease in receivables from Cassa per i Servizi Energetici e Ambientali for 115 million euro;
- net decrease in current tax receivables of 72 million euro;
- · increase in deferred assets of 56 million euro relating to portions of cost pertaining to future years;
- increase of 41 million euro in receivables related to the sale of the water branch by the subsidiary Azienda Servizi Valtrompia S.p.A.;
- · decrease in payables to personnel and social security institutions for 11 million euro;
- net increase in other current assets for 2 million euro.

"Assets/liabilities held for sale" amounted to 43 million euro and consisted of 34 million euro in assets pertaining to the integrated water service and 9 million euro for the construction of 2 substations (which will be sold to Terna) for the connection of new production plants as part of the development projects related to renewable sources.

Consolidated "Invested capital" at June 30, 2023 amounted to 8,815 million euro and was financed by Equity for 4,443 million euro and the Net Financial Position for 4,372 million euro.

Shareholders' equity

"Equity" amounted to 4,443 million euro and shows a negative change for a total of 24 million euro.

The change was partly due to the period result for 293 million euro (280 million euro pertaining to the Group and 13 million euro to minorities), offset by dividends approved for 302 million euro (of which 283 million euro distributed by the parent company A2A S.p.A.).

Finally, we note a net negative change in cash flow hedge derivatives and IAS 19 reserves for a total of 13 million euro.

The "Consolidated Net Financial Position" at June 30, 2023 was 4,372 million euro (4,258 million euro at the end of 2022). The gross debt amounted to 6,838 million euro, up by 51 million euro compared to December 31, 2022. Cash and cash equivalents amounted to 2,416 million euro, down by 168 million euro. The other net financial assets/liabilities showed an active balance of 50 million euro with a net increase of 3 million euro as compared with December 31, 2022.

millions of euro	06 30 2023	06 30 2022
EBITDA	880	699
Change Net Working Capital	(313)	108
Changes in Other assets/liabilities	223	(281)
Utilization of provisions, net taxes and net financial charges	(148)	(66)
Operating cash flow	642	460
Capital Expenditure	(494)	(463)
Property disposals	-	221
Cash flow before dividend payment	148	218
Dividends	(283)	(283)
Net cash flow	(135)	(65)
Change in scope	21	(409)
Change in Net Financial Position	(114)	(474)

During the period, the net cash absorption amounted to 135 million euro, after investments of 494 million euro and the payment of dividends for 283 million euro, partly offset by the cash generated by operating activities and equal to 642 million euro. Changes in the scope of consolidation during the period were positive and amounted to 21 million euro.

Regarding net cash flow absorption:

- the change in Trade Receivables, Trade Payables, Inventories, Other Assets/Liabilities and Use of provisions resulted in a cash absorption of 108 million euro attributable to the increase in A2A Energia's customer base only partially offset by the reduction in the energy scenario.
 - It should be noted that the Group occasionally assigns receivables without recourse and has no revolving factoring programmes in
- the payment of net financial charges and taxes absorbed cash of 130 million euro.

Significant events during the period

A2A joins the Nasdaq Sustainable Bond Network

On January 24, 2023, A2A joined the Nasdaq Sustainable Bond Network, a platform on Sustainable Finance that brings together investors, issuers, investment banks and specialist organizations. Membership will enable the Group to get in touch with a wide network of potential international investors attentive to sustainability issues.

500 Million Green Bond Issued

On January 27, 2023, A2A successfully placed a new 500 million euro Green Bond with a duration of 11 years, with the aim of financing projects in the field of energy transition and the circular economy eligible for the European Taxonomy and envisaged by the Business Plan. The bond, intended for institutional investors and issued under the Euro Medium Term Notes Program, is based on the Group's Sustainable Finance Framework, the set of guidelines that reinforce the link between financial strategy and sustainable strategy.

The bond was placed at an issue price of 98.824% and has an annual yield of 4.513% and a coupon of 4.375%, with a spread of 167 basis points over the mid-swap reference rate.

The issue attracted a lot of interest, receiving orders for about 2.2 billion euro, more than about 4 times the amount offered

Resolutions on the EMTN Program

The Board of Directors of A2A S.p.A., authorized the issuance, by April 30, 2026, of one or more non-subordinated, unsecured and non-convertible bonds up to a total maximum amount of 1.65 billion euro, based on its EMTN Program - established in 2012 - whose total maximum amount will be increased, upon Program renewal, from 6 billion euro to 7 billion euro.

The program provides for the possibility of issuing also green and sustainability-linked bonds.

The issue of bonds will be used, inter alia, to finance and/or refinance the Group's investments and/or to maintain adequate levels of liquidity, as well as to be used for one or more liability management operations. The decision falls within the context of the A2A Group's financial strategy also aimed at ensuring efficient management of the Group's repayment profiles, extending the average life of the debt and supporting the credit rating.

Expression of interest to become a shareholder of EGEA S.p.A.

On March 16, 2023, on an exclusive basis A2A S.p.A. formalized a non-binding offer to enter the share capital of EGEA - Ente Gestione e Ambiente S.p.A. with an absolute majority shareholding (50.1%) through a capital increase. The current indicative Enterprise Value range for 100% of the assets is between 560 and 605 million euro.

On May 8, 2023, A2A requested an extension of the exclusivity period agreed between the parties in order to continue the due diligence activities. EGEA has agreed to A2A's continuation of due diligence and negotiations until June 12, but in the context of a tender procedure in which other parties may participate. A2A has accepted EGEA's requests and, consequently, by mutual agreement between the parties, the exclusive negotiations, which had started as a result of the expression of interest, have been interrupted and will continue within the tender procedure.

On June 15, 2023, A2A announced that it did not see the conditions to submit any offer with respect to the possible acquisition of a majority stake in Egea's share capital.

2022 results approved

On March 16, 2023, the Board of Directors of A2A S.p.A. approved the drafts of the financial statements and of the consolidated annual financial report at December 31, 2022.

The ordinary Gross Operating Margin equalled 1,502 million euro, an increase of 8% compared to 2021.

Net profit amounted to 401 million euro, down by 20% compared to 2021, also due to the effect of extraordinary contributions under legislative measures. Net of extraordinary items, Net Ordinary Profit amounted to 380 million euro, an increase of 2% compared to 2021.

Capex equal to 1,240 million euro increased 15% from the previous year.

The Net Financial Position was 4,258 million euro (4,113 million euro at December 31, 2021) corresponding to 2.8x NFP/EBITDA, down from 2.9x in 2021.

The Board of Directors proposed to the Shareholders' Meeting a dividend of 0.0904 euro per share (0.0849 euro as recurring component and 0.0055 euro as non-recurring component).

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Ordinary Shareholders' Meeting of A2A S.p.A.

On April 28, 2023, the Ordinary Shareholders' Meeting of A2A S.p.A. approved the financial statements and the proposal formulated by the Board of Directors to distribute a dividend per ordinary share of 0.0904 euro. The dividend was paid in May 2023

The Shareholders' Meeting also voted in favour with a binding vote on the first section of the 2023 Report on Remuneration and with an advisory, non-binding vote on the second section of the 2023 Report on Remuneration.

The Shareholders' Meeting authorized and defined the terms within which the Board of Directors may purchase and dispose of treasury shares.

Finally, the Shareholders' Meeting resolved on the renewal of corporate offices as follows:

Board of Directors

The Board of Directors consisting of the following 12 members was appointed for three financial years, with the list voting mechanism: Marco Emilio Angelo Patuano - Chair; Giovanni Comboni - Vice Chair; Renato Mazzoncini; Maria Grazia Speranza; Maria Elisa D'Amico; Fabio Lavini; Roberto Tasca; Elisabetta Cristiana Bombana and Elisabetta Pistis (taken from the list presented jointly by the majority shareholders of the Municipality of Brescia and the Municipality of Milan, who together own a stake of approximately 50.00000112% of the share capital); Vincenzo Cariello, Alessandro Zunino and Susanna Dorigoni (taken from the list presented jointly by a group of minority shareholders made up of asset management companies and institutional investors, who together own a stake of approximately 1.07593% of the share capital). Maria Grazia Speranza, Maria Elisa D'Amico, Roberto Tasca, Elisabetta Cristiana Bombana, Elisabetta Pistis, Vincenzo Cariello, Alessandro Zunino and Susanna Dorigoni declared that they meet the independence requirements set forth in article 148. paragraph 3, of Legislative Decree 58/98 and the Corporate Governance Code. Giovanni Comboni and Fabio Lavini declared to meet the requisites of independence prescribed by article 148, paragraph 3 of Legislative Decree 58/98.

Board of Statutory Auditors

The Board of Statutory Auditors consisting of the following 3 standing members and 2 substitute members was appointed for three financial years, with the list voting mechanism: Maurizio Dallocchio - Standing Auditor; Chiara Segala - Standing Auditor and Patrizia Lucia Maria Riva - Substitute Auditor (taken from the list presented jointly by the majority shareholders of the Municipality of Brescia and the Municipality of Milan, who together own a stake of approximately 50.000000112% of the share capital); Silvia Muzi - Chair and Vieri Chimenti - Substitute Auditor (taken from the list presented jointly by a group of minority shareholders made up of asset management companies and institutional investors, who together own a stake of approximately 1.07593% of the share capital).

Statutory audit

The assignment for the statutory audit of the accounts for the years from 2025 to 2033 was conferred on the company KPMG S.p.A..

Board of Directors

The Board of Directors, which met for the first time on May 2, 2023, appointed General Manager Renato Mazzoncini as CEO of the Company.

During the same meeting, the Board also assessed, ascertaining the existence of the following: (i) the independence requirements established by art. 148 TUF and the Corporate Governance Code of the non-executive directors Elisabetta Cristiana Bombana, Vincenzo Cariello, Maria Elisa D'Amico, Susanna Dorigoni, Elisabetta Pistis, Maria Grazia Speranza, Roberto Tasca and Alessandro Zunino and; (ii) the independence requirements established by art. 148 TUF of the non-executive directors Giovanni Comboni – Vice Chair and Fabio Lavini.

All standing members of the Board of Statutory Auditors, Silvia Muzi - Chair, Maurizio Dallocchio and Chiara Segala, meet the independence requirements of art. 148 TUF and of the Corporate Governance Code.

On May 11, 2023, the Board of Directors appointed the four Committees, indicating their members:

- Audit and Risk Committee: Alessandro Zunino (Chair), Elisabetta Bombana, Maria Grazia Speranza and Roberto Tasca;
- Appointments and Remuneration Committee: Susanna Dorigoni (Chair), Giovanni Comboni and Roberto Tasca;
- ESG and Local Relations Committee: Marco Patuano (Chair),
 Vincenzo Cariello, Fabio Lavini and Elisabetta Pistis;
- Related Parties Committee: Vincenzo Cariello (Chair), Maria Elisa D'Amico and Maria Grazia Speranza.

The Board also established that the Internal Audit function report functionally to the Vice Chair Giovanni Comboni.

Significative events after June 30, 2023

WTE Brescia flue gas line intervention

The interconnection work of the second line of the waste-to-energy plant was started during the planned shutdown in July. The plant will be fully operational with the new flue gas treatment system on all three lines during the next thermal season.

Resignation of the Chair of the Board of Directors

On July 28, the Executive Director Marco Patuano resigned from the offices of Board Director and Chair following further work assignments that do not allow him to ensure the commitment and concrete operational presence required by the role. As a consequence, Mr. Patuano also ceases to hold the position of Chair of the ESG and Territory Relations Committee.

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Impacts of the Russia-Ukraine conflict

The first half of 2023 was characterized by an easing of those tensions resulting from the outbreak of the conflict between Russia and Ukraine that had marked the energy markets in 2022 with sharp rises in commodity prices and high volatility and led to a generalized increase in inflation with particular reference to the prices of oil derivatives and foodstuffs, repercussions on the financial markets and the solvency of some counterparties and the security of the IT infrastructure for possible cyber-attacks.

In particular, the first half of 2023 witnessed a gradual reduction in the level and volatility of energy commodity prices, which, however, are at higher values than in the pre-crisis period. The average value of the PUN (Single National Price) Base Load in the first half of 2023 shows a decrease of -45.2% compared to the corresponding period of 2022, reaching 136.3 €/MWh. The dynamic is mainly driven by a significant drop in gas costs to which the price of electricity is related. The PUN in January 2023 stood at 174.5 €/MWh, and then fell gradually, as gas prices fell, to 105.3 €/MWh in June. For all of 2023, forward curves indicate Base Load PUN prices with average values close to € 135.2/MWh.

The A2A Group, in its industrial activity of generating energy carriers and their wholesale marketing, managed price volatility by optimizing its purchasing and selling strategies. The Group pursues a prudent hedging policy by operating mainly on platforms.

Initiatives taken on the gas supply front, energy-saving policies, and the particularly mild climate in the first months of 2023 have led to significant savings in gas consumption and to a storage situation at filling levels well above estimates and previous years. Given the stockpile at the end of winter and the spring injections, the storage was already filled to about 80% of its capacity at the end of June.

At present, therefore, given the state of filling of national and European storages and the return to normality of hydroelectric production, which has led to a lower demand for energy from gas-fired power stations, the national supply situation is less critical thanks also to the contribution of new regasification terminals in Europe, including Piombino in Italy.

To protect itself in the event that the situation should become critical again, A2A, as in the past, acquired gas storage space, which it is filling in such a way as to hold forms of flexibility to reduce the impact of any stress on gas imports into Italy that

A2A's gas portfolio is currently balanced: gas volumes used by thermoelectric power plants that have not already been purchased in advance by hedging the spark spread are purchased daily on the market.

In 2022 was the issue of the government measures that introduced extraordinary contributions on the economic results of energy companies (e.g. Sostegni Ter Decree Law, Taglia Prezzi Decree Law, Aiuti Decree Law, 2023 Budget Law) allocating

them, in particular, to financing interventions in support of national companies and households. These interventions also had an effect in the first half of 2023. It should be noted that the price cap measure on renewables, which provided for a two-way compensation mechanism on the price of energy, with reference to electricity fed into the grid for the period from February 1, 2022 to June 30, 2023 from certain types of renewable plants (including existing hydro), was not extended. Moreover, the Group, as in some months of 2022, has been called upon to maximize electricity production from sources that use fuels other than natural gas also for most of 2023.

With reference to the solvency of certain counterparties, it should be noted that given the high quality of the customers and the significant portion of bills paid by direct debit, to date there has not been a significant deterioration in payment performance by customers: careful management methods remain in place through a Credit Policy that provides for preliminary checks, insurance coverage, requests for guarantees, waivers as well as the management of payment terms, interest and repayment plans. Accruals are decreasing: in particular, for A2A Energia, there was a reduction of 34% compared to June 30, 2022.

With reference to possible tensions on the financial markets, it should be noted that the maintenance of a solid liquidity position for the Group (4.7 billion euro at June 30, 2023), made up of liquid assets (2.4 billion euro at June 30, 2023) and both committed and uncommitted back-up lines (at June 30, 2023 equal to 2.3 billion euro), made it possible to manage the positions on the commodities market and the temporary increases in working capital due to price increases and instalment plans granted to customers. During the first half of the year, A2A successfully placed a bond in the form of a Green Bond for 500 million euro.

Lastly, in relation to the high level of alertness for cyber attacks, the Group has activated a channel with the top management of the National Security Agency to exchange information, accelerating the program to secure endpoints with advanced malware protection tools; an assessment was also conducted to determine the degree of vulnerability of A2A's services exposed on the Internet and the degree of exposure to the attack techniques and tactics of criminal groups and hackers.

Climate change

The actions implemented by the A2A Group to combat climate change are an important part of its development strategy. In this regard, the update of the 2021-2030 Business Plan, published in November 2022, includes some actions aimed at mitigating the effects of climate change. The pillars of development for the Group are, in fact, the Circular Economy and the Energy Transition: the Group will increase its waste treatment and valorization capacity by consolidating its leading role in Waste-to-Energy and a significant position in the biomethane market

segment, and will further focus on the development of renewable energies, flexibility and electrification of consumption

The Group is strongly committed to meeting the decarbonization target, confirming the reduction trajectory validated by the SBT and defining 2040 as the year by which to reduce emissions by 90%-95% compared to 2017 values and using carbon removals to neutralize the remaining 5%-10%, thus becoming Net-Zero 10 years ahead of EU targets.

Significant risks for the Group related to climate change

From the analyses performed, the following risks relevant to the Group were identified:

Business	Event	Probability*	Economic impact on EBITDA**
Electricity Grids	Resilience of electricity distribution networks	Possible	Low
Retail gas	Thermal energy demand	Possible	Low
Heat	Thermal energy demand	Possible	Low
Electricity - Hydro and Renewables	Precipitation and water resource use	Possible	High
Electricity CCGT + Monfalcone + San Filippo del Mela	Plant cooling	Unlikely	Low
Waste	ETS Directive Revision	Possible	High
Transversal	Extreme weather phenomena	Possible	Low

- * Unlikely: <10%; Possible: >=10%; =<50%; Probable: >50%
- ** Low: <5M€; Medium: >=5M€; =<20M€; High: >20M€

In particular, for **electricity grids**, the resilience of distribution networks is linked to three possible risks:

- interruption of service related to possible peaks in demand due to increased temperatures;
- flooding of underground cabins caused by heavy rain:
- increased demand for energy related to the electrification of consumption.

The 2021-2030 Business Plan includes an investment plan of around 2.1 billion euro for the maintenance and development of the electricity grid, enabling both the adaptation to physical climate risks and the progressive electrification of energy services by improving their efficiency and reducing CO2 emissions. In this regard, the plan includes interventions to upgrade and rationalize the networks, secondary substations, primary substations and an extension of the remote management of assets.

As electricity distribution is a regulated business, these investments are remunerated at a rate defined by ARERA and updated according to a regulatory period of 8 years. In addition, ARERA offers the possibility of joining a bonus mechanism to encourage the implementation of specific interventions to increase the resilience of electricity grids.

The **Retail Gas** and **Heat** businesses could suffer an unfavorable trend resulting from:

- higher than expected winter temperatures;
- the occurrence of climatic conditions at the end of the year that are very different (exceptional/ minimum temperature) from those used at the planning stage.

The business plan includes investments in the Heat business of approximately 0.9 billion euro, part of which is aimed at the development of district heating networks and strategies to increase the number of customers. Furthermore, there are projects for the recovery of "thermal waste" and the revamping of existing plants, to optimize energy costs and maintain the competitiveness of the assets. These capex, in addition to mitigating risk, are aimed at developing the district heating business. For estimating the amount of heat sold, the median of the degree days observed over the last 8 years was taken into account in order to adequately account climate change.

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Electricity production from renewable sources could be impacted by several exogenous phenomena:

- change in the precipitation regime;
- · competition on water use.

The business plan update envisages investments of around 3.9 billion euro in the period 2021-2030 for the development of renewable energy sources.

The change in the precipitation regime could lead to a change in the water availability for the Group's main hydroelectric auctions. The Business Plan includes investments to optimize the use of the derived water resource for hydroelectric purposes (e.g., pumping). In addition, the Group is engaged in the development of tools to improve rainfall and run-off forecasts as well as in the development of engineering analyses and models to support the planning of hydroelectric plants in both the medium and short term. The Group's hydroelectric production estimate is based on an 8-year historical average, including 2022, which experienced an exceptional drought.

Competition for the use of water resources could lead to an increase in the share of water that hydroelectric plants will be forced to release to make it available for irrigation and drinking.

Production from thermoelectric plants could be impacted by rising temperatures due to the risk of plant operation limitations caused by difficulties in adequately cooling the thermoelectric cycle when summer temperatures rise. To mitigate these risks, the Group constantly monitors the temperature of the cooling water, as well as, at some plants, the temperature of the watercourse downstream of the discharge. Furthermore, the Group has active all-risk insurance coverage, which also covers direct and indirect damage caused by natural phenomena. The investments associated with these facilities amount to approximately 1.4 billion euro in the period 2021-2030.

The Revision of the ETS Directive could impact the Waste Business Unit. In particular, waste-to-energy plants could be included in the Emissions Trading Scheme following the revision of the EU directive. The Group is constantly engaged in monitoring legislation and assessing possible impacts. In addition, the Group is experimenting with new technologies for capturing and sequestering CO2 emitted by waste-to-energy plants.

The A2A Group monitors any extreme weather phenomena (e.g. floods, landslides, water bombs, tornadoes, etc.), which could be a risk to the Group's assets and business continuity. To cover against such events, the Group has active insurance contracts with coverage extended to include damage caused by natural phenomena. In addition, there are procedures in place to manage any acute weather phenomena in an optimal and timely manner. Finally, with a view to prevention, the design and construction of installations (e.g. wind and photovoltaic) takes into account the characteristics of the territory and local climatology (e.g. slope stability, windiness, etc.).

Transversal climate risk management actions

The A2A Group has adopted the following transversal response actions to physical and transition climate risks:

- Governance divided into a strategic level (Board of Directors, Risk Control Committee, ESG and Territorial Relations Committee, Sustainable Finance Committee) and a more operational level integrated into the Group's Enterprise Risk Management process. Structured information flows between the committees and organizational structures involved to ensure alignment and synergy between the two levels of the
- Ten-year business plan based on the pillars of energy transition and circular economy, including investments in climate change mitigation and increasing the resilience of assets and infrastructure:
- adoption of a CO2 emission reduction target approved by the Science Based Targets initiative - SBTi;
- monitoring of weather and climate parameters to support short, medium and long-term production planning;

- research and testing of technologies for capturing and sequestering CO2 emitted with flue gases;
- · emergency procedures and plans;
- diversification of electricity generation sources and geographical location of assets;
- physical climate scenario analysis and transition to support strategic planning and climate risk assessment. Sensitivity analysis of the economic-financial impacts of the main risks monitored:
- monitoring of regulatory developments in the field of climate change and energy transition, and sharing the associated risks and opportunities through specific internal interdisciplinary working Groups;
- training and awareness-raising of employees with internal seminar cycles on climate change and environmental issues;
- insurance coverage that covers direct and indirect damages caused by natural events.

Macroeconomic context

The A2A Group's activities are sensitive to economic cycles and general economic conditions in the countries in which it operates. The current context of the energy markets in which A2A operates shows signs of consolidation of the economic recovery underway, partly as a result of the gradual easing of the restrictive measures adopted at national and international level to deal with the COVID-19 emergency. For the years to come, macroeconomic projections foresee a continuation of

the recovery of international trade and a moderate expansion of domestic demand, which should allow the gradual recovery of GDP and the alignment of values, also with reference to prices and margins, to A2A's Business Plan.

Given the features of the sectors in which it operates, the Group is exposed to energy scenario risk, namely the risk linked to changes in the price of energy raw materials (electricity, natural gas), and the prices of CO2 emissions allowances (EUA). Market

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on items of the financial

Impact of scenario and climate change on items of the financial statements

Impairment test

Consistent with IAS 36, the Group periodically monitors CGUs for impairment indicators, including those related to risks associated with climate change (regulatory or consumption changes, changes in temperature and rainfall, etc.) and the energy scenario.

risk is mitigated by constantly monitoring the total net

exposure of the Group's portfolio and addressing the

main factors affecting the trend. Appropriate hedging strategies are defined, where necessary, designed

As described in the previous section, the 2021-2030 business plan update published in November 2022 and the related scenario updates, on which the impairment test is based, natively includes climate change-related effects not only in the capex projections but also in the economic projections in order to also reflect recent events in terms of, for example, temperature and rainfall.

he Weighted Average Cost of Capital (WACC) used for discounting cash flows is determined as the weighted average of the cost of equity and the cost of debt capital, net of tax effects.

This value is updated annually to reflect current volatility and risk perceptions, thus including expectations on growth and exposure to climate risks that the stock market recognizes for each sector.

No positive growth rates are expected beyond the explicit Plan horizon.

The reference energy scenario was estimated by considering long-term supply and demand trends, taking into account numerous variables including population growth, the development and adoption of new green technologies, consumer choices and political ambition to stimulate the transition. As a result, a gradual reduction in the consumption of oil products is expected in the coming years, while the natural gas market sees a substantial consolidation of

demand in Italy until 2030, as a result of the resilience of the thermoelectric sector, and thereafter, also due to the increasing penetration of energy efficiency and electrification policies, a decisive acceleration in the drop in demand for methane. The demand for electricity is seen growing, supported by new forms of electrification (electric vehicles, heat pumps, electrolysers).

to maintain this risk within the established limits.

typically through hedging at 12 and 24 months.

It should be noted that the only coal-fired plant (Monfalcone) was fully written down in previous years.

Provisions, contingent liabilities and assets

The risk of climate change did not give rise to the need to recognize additional contingent liabilities as the A2A Group, as required by the standard, reviews risks annually, estimating the present value of the amounts required to meet future contingent obligations (e.g. decommissioning provisions on landfills or thermoelectric plants). This estimate is the result of the methodology used by the Group in previous years, which takes into account the macroeconomic scenario.

Revenues from contracts with customers

Among sales contracts, which are accounted for in accordance with the accounting standards, the A2A Group, consistently with what has been done in previous years, evaluates from time to time the possible estimation of a specific provision for contracts classifiable as onerous pursuant to IAS 37.

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3.6

Taxonomy

After the formal adoption of the first Technical Delegated Act of the EU Regulation 2020/852 (the so-called Taxonomy), which defined the list of economic sectors and activities that can contribute to climate change mitigation and adaptation, in June 2023, the European Commission approved the remaining Delegated Acts, aimed at identifying the technical criteria and additional activities that can contribute substantially to the other four objectives of the EU Regulation 2020/852.

As of 2022, in order to ensure compliance with the requirements of EU Regulation 2020/852, the A2A Group has implemented a specific project aimed at identifying "eligible " and "aligned" activities in accordance with the Regulation itself.

As required by the regulations, the analyses have been conducted in order to identify those economic activities that are considered truly eco-sustainable (so-called "taxonomy-aligned" economic activities), i.e., those activities which:

- a) contribute substantially to the achievement of one or more of the environmental objectives by meeting the technical screening criteria defined in the Climate Delegated Act;
- b) do not cause significant harm to any of the other environmental objectives (so-called DNSH); and
- c) are carried out in compliance with minimum safeguards1.

This process has led to the identification of "eligible" and "aligned" activities for the Group under the Taxonomy for Environmental Objectives for Climate Change Mitigation and Adaptation; with reference to these activities, A2A has reported revenues, capital expenditure and/or operating expenditure in the year 2022, which are reported in Group's Consolidated Non-Financial Disclosure (NFD) 2022.

In addition, from the first quarter of 2023, given the strategic nature of reporting, the Group has decided to implement such reporting on a periodic intra-annual basis.

This project initially focused on the first two objectives related to climate change mitigation and adaptation. In the second half of 2023, the process will be supplemented with the four additional objectives for which Delegated Acts were published in June 2023.

¹ According to article 18 of EU Regulation 2020/852, minimum safeguards are "procedures implemented by an enterprise engaged in an economic activity in order to ensure that it is in line with the OECD Guidelines for Multinational Enterprises and the United Nations Guiding Principles on Business and Human Rights, including the principles and rights set out in the eight core conventions identified in the International Labour Organization's Declaration on Fundamental Principles and Rights at Work and the International Bill of Human Rights."

3.7

Outlook for operations

The good results in the first half of the year and the non-extension of the price cap mechanism on renewable production introduced last year into the second half of 2023 allow for a positive revision of expectations for 2023.

It is expected that the Group will achieve:

- an Ebitda in the range of 1.74 to 1.78 billion euro (from the previous range of 1.64 to 1.68 billion euro);
- a Group Net Ordinary Profit of between 450 and 470 million euro (from the previous range of between 390 and 410 million euro).

High levels of volatility in the energy markets and new regulatory measures are risks that could generate impacts on the Group that are difficult to quantify to date.

The A2A Group constantly monitors the evolution of the context and, as done in other situations of volatility, promptly identifies possible mitigating actions, aimed at greater protection of the economic and financial position.

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Scenario and Market

Macroeconomic scenario

Overview

During the first months of 2023, global economic activity grew more than expected despite a context of weakness in the world economy and international trade associated with continuing geopolitical uncertainty related to the war in Ukraine and high inflation. The reopening of the Chinese economy with the termination of the zero-COVID strategy as well as the resilience of the US labor market in the face of significant monetary policy tightening contributed to growth. Overall, estimated world GDP growth rose to a rate of just over 3% in Q1 2023 (Source: OECD) with contrasting results across countries.

As far as advanced economies are concerned, US GDP grew at +0.3% in the first quarter of 2023, compared to +0.6% in the previous three months, with a large negative contribution from inventories offsetting the acceleration in consumption. In China, GDP rose +2.2 % in the first quarter of this year, accelerating sharply from +0.6 % at the end of 2022 (+3.0 % growth in the average for 2022). Growth was mainly driven by the service sector, which more than compensated for a marginal deceleration in industry.

In the first quarter of the year, Eurozone GDP increased by +0.1 % in real terms after stagnating at the end of 2022 (Source: Eurostat). Falling energy prices, the easing of supply-side bottlenecks, and budgetary measures in favor of households and businesses contributed to the resilience of the economy. Among the major countries, Spain and France grew more than the Eurozone average (+0.5 % and +0.2 % respectively), while Germany declined by -0.3 %. Data made available by Eurostat point to continued positive growth in the Eurozone, albeit moderate, for the second quarter of 2023.

In the first quarter of this year, after a slight decline at the end of 2022, the expansion phase of the Italian economy continued, recording GDP growth of +0.6% (Source: ISTAT). The increase in GDP was supported entirely by domestic demand, which made a positive contribution (+0.7%), while net foreign demand made a slightly negative contribution (-0.1%) as did inventories (-0.1%).

According to the preliminary estimate released by Eurostat, inflation in the Eurozone is expected to stand at +5.5% in June, down from +6.1% in May. Analyzing the main components of inflation, food, alcohol and tobacco are expected to register the highest annual rate in June (+11.7% compared to +12.5% in May), followed by non-energy industrial goods (+5.5% compared to +5.8% in May) and services (+5.4% compared to +5.0% in May). By contrast, the energy component showed a negative rate (-5.6% against -1.8% in May). The average inflation for the year is equal to +7.1%.

In Italy, according to ISTAT preliminary estimates, inflation in June 2023 recorded a zero change on a monthly basis and an increase of +6.4% on an annual basis (from +7.6% in the previous month). The deceleration in the rate of inflation was due to the tendency-based slowdown in the prices of unregulated energy goods (from +20.3% to +8.4%) and, to a lesser extent, processed foodstuffs (from +13.2% to +11.9%). The average inflation for the year is equal to +8.2%.

As expected, the tightening of monetary policy by the European

Central Bank (ECB) continued, which raised interest rates by 25 basis points at its June meeting, bringing the reference rate to 4%. Finally, the Governing Council of the ECB also confirmed that it will end reinvestments under the Financial Asset Purchase Program (FPA) as of July 2023. The Federal Reserve changed course and decided to suspend the monetary tightening that began in March 2022. At its June meeting, the US central bank did not change interest rates and confirmed the reference rate, which remains fixed in a range between 5% and 5.25%.

Since January 2023, the same monetary policy implemented in both the US and the Eurozone has favored the substantial stability of the euro-dollar exchange rate. On average for the first half of 2023, the EUR/USD exchange rate was 1.07 dollars, down 1.2% compared to the corresponding period of the previous year

Outlook

In the face of the consequences of the conflict in Ukraine and restrictive monetary policies, the global economy continues to be characterized by a climate of uncertainty that affects the volatility of commodity prices and dampens manufacturing activity and international trade. Uncertainty about the global outlook is heightened by the possible repercussions of the recent banking disruptions. The International Monetary Fund revised its estimate of the world economy for 2023 and 2024 downwards. According to the quarterly update of the World Economic Outlook, global growth will slow down from +3.4 % in 2022 to +2.8 % in 2023, and then rebound to +3.0 % in 2024. Both forecasts were revised down by 0.1 percentage points from the previous ones.

For the advanced economies, the slowdown will be more pronounced, from +2.7% in 2022 to +1.3% in 2023 and +1.4% in 2024. The current forecast is influenced by restrictive monetary policies needed to reduce inflation, worsening financial conditions, the ongoing conflict in Ukraine, and increasing geo-economic fragmentation. Growth in the US will slow down from +2.1% in 2022 to +1.6% in 2023 and +1.1% in 2024 (+0.2 and +0.1 percentage points, respectively, compared to the previous estimate). China is expected to grow +5.2% this year and +4.5% next year due to the lifting of the government's zero-COVID policy. Emerging markets and developing economies, after +4.0% in 2022, are expected to grow by +3.9% this year and +4.2% next year (-0.1% and +0.0% compared to January).

Eurosystem experts in June revised their projections for the Eurozone economy slightly downwards for this year and next, indicating a growth rate of +0.9% in 2023 and +1.5% in 2024. Compared to the assumptions made in March, the impact on growth of tighter credit supply conditions is expected to be slightly more negative in 2023 and essentially unchanged in 2024.

As far as Italy is concerned, according to Bank of Italy estimates, after the recovery in the first quarter of 2023 (+0.6%), economic activity is expected to expand moderately in the next two years, held back by the effects of worsening financing conditions. On average for the year, GDP is expected to increase by +1.3% in 2023 and +1.0% in 2024. Compared to the projections published

Scenario and Market

4.1 Macroeconomic

Energy market trends

in January, GDP growth was revised upwards in 2023, due to a better-than-expected performance, and downwards in 2024, mainly due to a stronger deterioration in financial conditions. Household consumption, after falling at the end of last year, is expected to expand at a similar pace to GDP. The unemployment rate is expected to decline gradually from 7.9% on average in 2023 to 7.8% in 2024.

Based on June's macroeconomic projections, Eurosystem experts expect inflation for the Eurozone to average +5.4% in 2023 and +3.0% in 2024, reflecting the decline in energy commodity prices and the dampening of inflationary pressures.

As far as Italy is concerned, the consumer price index is expected to average +6.1% this year and decrease to +2.3% in 2024. This decline should mainly reflect the marked reduction in the contribution of the more volatile components, linked to lower commodity prices. Core inflation is still expected to remain high this year, to decline next year in line with a gradual transmission of lower energy costs. Compared to the forecast published in January, consumer inflation has been revised downwards this year and next by about 0.3 percentage points mainly due to the decline in energy prices: faster than previously assumed.

The Governing Council of the European Central Bank (ECB) indicated that future decisions will ensure that key interest rates are set at levels sufficiently restrictive to achieve a timely return of inflation to the 2% target over the medium term and are kept at these levels as long as necessary. In particular, the measures to be taken by the Governing Council on key interest rates will continue to be based on the assessment of the inflation outlook, the dynamics of core inflation and the intensity of monetary policy

2024 and stabilize at 2.5% in the long term.

The projections made by ECB experts, against a backdrop of a narrowing interest rate differential with the US that has led to an appreciation of the euro against the dollar, see the EUR/USD exchange rate around 8% stronger than assumed in the March forecast, and the single currency averaging 1.08

dollars in 2023 and 1.09 dollars in 2024.

transmission. Along the same lines, the Federal

Reserve will resume monetary tightening with at least

year. The reference rate should then fall below 4.5% in

two more 25 basis point hikes before the end of the

Energy market trends

Electricity

As far as the Italian electricity market is concerned, in the first five months of 2023, there was a net requirement of 125,079 GWh, down -4.5% compared to the requirement of the corresponding period of 2022 (source: Terna); in seasonally adjusted terms, and corrected for calendar and temperature, the change is equal to -4.1%. The above requirements were met 48.1% from non-renewable sources, 33.6% from renewable sources and the remainder from imports. In the first five months of 2023, the foreign balance increased significantly (+30.5%) compared to the same period in 2022.

Net electricity production in the first five months of 2023 amounted to 103,223 GWh, down 9.9% compared to the corresponding period of the previous year. Production from Renewable Energy Sources (RES) increased 1.4% year-on-year to 41,999 GWh. Specifically, the photovoltaic source is up 2.7%, while wind (-0.5%) and geothermal (-3.8%) are down; the hydroelectric source is up 8.8% due to the high hydraulicity of May. Thermoelectric production decreased, showing -15.5% compared to the first five months of 2022 and stood at 67,369 GWh. National production, excluding pumping, accounted for 82.5% of the demand for electricity, while net imports satisfied the remainder.

The average value of the PUN (Single National Price) Base Load in the first half of 2023 shows a decrease of -45.2% compared to the corresponding period of 2022, reaching 136.3 €/MWh. The dynamic is mainly driven by a significant drop in gas costs to which the price of electricity is related. The PUN in January 2023 stood at 174.5 €/MWh, and then fell gradually, as gas prices fell, to 105.3 €/MWh in June. Average prices down also for the price in the hours of high load (PUN Peak Load) with a value that stood at 145.8 €/MWh (-45.5% compared to the first half of 2022). The average price during off-peak hours (PUN Off-Peak) was 131.0 €/MWh, down -45.0% compared to the corresponding period of the previous year. For all of 2023, forward curves indicate Base Load PUN prices with average values close to € 135.2/MWh.

Natural Gas

The dynamics observed in the Italian gas market are part of the scenario marked by the Russia-Ukraine conflict, reflecting the direct and indirect effects produced on international demand, flows and raw material prices. In the first half of 2023, Italy's natural gas consumption fell to 33,192 million cubic metres (-15.2%), falling below the levels of 2020, which was characterized by the start of the Covid-19 health emergency. The downturn affected the entire half-year, being more pronounced in the first quarter due to the mild winter (source: Snam Rete Gas). Consumption in the industrial and civil sectors decreased, with volumes of 5,884 million cubic metres (-10.7%) and 15,559 million cubic metres (-14.7%) respectively. Consumption also decreased in the thermoelectric sector, more marked, to 9,894 million cubic metres (-22.7%).

On the supply side, in correspondence with lower demand and national production with an increasingly marginal weight, there was a drop in natural gas imports, down to 31,881 million cubic metres (-11.6%), which accounted for 95.7% of national demand net of storage trends. Domestic production, which satisfied the remainder, stood at 1,427 million cubic metres (-6.8%).

As regards prices, the average price of gas to the PSV in the first half of 2023 decreased compared to the record levels of the previous year and stands at 47.3 €/MWh, down by -51.6% compared to the first half of 2022. The PSV, with a value of 68.4 €/MWh in January 2023, continued its downward trend and stood at 33.1 €/MWh in June. The price dynamics on the main European hubs were similar: The average price of gas to the TTF in the first half of 2023 amounted to 44.6 €/MWh, down -53.4% compared to the corresponding period of 2022.

The trend in the respective prices resulted in a PSV-TTF differential of 2.75 €/MWh for the reporting period, a noticeable increase compared to the differential of the first half of 2022 (2.17 €/MWh). Gas prices on the main European markets are expected to decrease in 2023, with an expected average price of gas to the TTF of € 42.5/MWh and to the PSV of € 44.4/ MWh; the respective forward curves show a positive PSV-TTF differential around € 1.82/MWh.

Oil and coal

In the first half of 2023, oil prices have had an average value of 80.1 \$/bbl, down by -23.3% compared to the final figure in the same period of the previous year. The downward trend is evident throughout the period with the sole exception of April, starting from a January price of 83.9 \$/bbl and settling at 75.0 \$/bbl in June. In the first half of 2023, the downward trend of prices expressed in €/bbl (-22.7%) was of the same tenor due to the stability of the single currency against the dollar. For the year 2023, oil forward curves indicate prices with average values close to 77.2 \$/bbl.

The Energy Information Administration (EIA) reported that global oil demand in the second quarter of 2023 averaged 100.8 million barrels per day, broadly in line with the first quarter. The EIA expects global oil demand to remain substantially stable at 101.0 million barrels per day in 2023. Global oil demand is then expected to grow to 102.7 million barrels per day in 2024 driven mainly by growth in non-OECD countries, especially India and China. However, these forecasts are subject to many uncertainties including future trends in global economic development and continuing geopolitical tensions.

Crude production of OPEC member countries averaged 28.4 million barrels per day in the second quarter of 2023. The EIA expects average OPEC crude oil production to decrease to 28.1 million barrels per day in 2023, as a result of recent production cuts, and increase to 28.4 million barrels per day in 2024. U.S.. Crude production averaged 12.56 million barrels per

Scenario and Market

Macroeconomic scenario

Energy market trends

day in the second quarter of 2023. EIA's forecast is for an increase that will average 12.6 million barrels per day in 2023 and rise to 12.8 million barrels per day in 2024 - the highest U.S. crude oil production on record. Given Russia's role in global crude oil production, forecasts regarding production volumes and the possible use of strategic reserves could undergo significant variations in relation to the evolution the crisis in Ukraine.

Coal also declined, starting from a January 2023 price of 165.2 \$/ton, and gradually contracted to settle at 120.2 \$/ton in June. The average price for the first half of 2023 is equal to 137.3 \$/ton with a decrease of -51.7% compared to the final figure in the corresponding period of the previous year (284.4 \$/ ton). The substantial stability of the euro against the dollar keeps the downward dynamics of the prices expressed in euro almost unchanged (-51.5%). For 2023, forward curves indicate prices with average values close to 127.9 \$/ton.



Result sector by sector

Results sector by sector

Generation and Trading Business Unit

The activity of the Generation and Trading Business Unit is related to the management of the generation¹ plants portfolio of the Group with the dual purpose of maximizing the availability and efficiency of the plants, minimizing operating and maintenance costs (O&M) and maximizing the profit deriving from the management of the energy portfolio through the purchase and sale of electricity and fuels (gaseous and non-gaseous) and environmental certificated on domestic and international wholesale markets. This Business Unit also includes the activity of trading on domestic and foreign markets of all energy commodities (gas, electricity, environmental certificates).

Market Business Unit

The activities of the Market Business Unit are aimed at the retail sale of electricity and natural gas to customers in the free market and sale to customers served under protection scheme. Furthermore, it deals with providing energy efficiency and electric mobility services.

Waste Business Unit

The activities of the Waste Business Unit relate to the management of the integrated waste cycle, which ranges from collection and street sweeping to the treatment, disposal and recovery of materials and energy.

In particular, collection and street sweeping mainly refers to street cleaning and the collection of waste for transportation to its destination

Instead, waste treatment is an activity that is carried out in dedicated centers to convert waste in order to make it suitable for the recovery of materials.

Disposal of urban and special waste in combustion plants or landfills ensures the possible recovery of energy through wasteto-energy or the use of biogas.

The Waste Business Unit includes the activities carried out abroad for the provision of know-how and technologies for the realization of waste pre-treatment plants.

Smart Infrastructures Business Unit

The Smart Infrastructures Business Unit develops and manages the infrastructures functional to the wide range of services provided by the Group, focusing on technology and innovation.

In particular, the Business Unit's activity mainly concerns the development and technical-operational management of electricity distribution networks, natural gas transport and distribution networks and the related metering service, characterized by important technological evolutions thanks to the use of smart meters. It manages the entire integrated water cycle (water collection, aqueduct management, water distribution, sewerage management, purification). The activity is also aimed at the sale of heat and electricity produced by cogeneration plants (mostly owned by the Group), through district heating networks and ensures the operation and maintenance of cogeneration plants and district heating networks. Also included are the activities related to the management services for heating plants owned by third parties (heat management services).

The Smart Infrastructures Business Unit also develops infrastructures in the field of telecommunications, designs solutions and applications aimed at creating new models of cities and territories and improving the quality of life of citizens.

It should be noted that from January 2021, the Business Unit develops and manages public lighting and traffic regulation systems; finally, it builds and manages a network of recharging infrastructures functional to the electrification of transport.

Corporate

Corporate services include the activities of guidance, strategic direction, coordination and control of industrial operations, as well as services to support the business and operating activities (e.g. administrative and accounting services, legal services, procurement, personnel management, information technology, communications, landline and mobile telephone service etc.) whose costs, net of amounts recovered from accrual to individual Business Units based on services rendered, remain the responsibility of the Corporate.

¹ Total installed capacity of 9.6 GW.

The following is a summary of the main economic data by sector:

Results by sector first half 2023

millions of euro	Generation and Trading	Market	Waste	Smart Infrastructures	Corporate	Eliminations and adjustments	Total
Revenues from the sale of goods and services	6,137	3,827	699	759	148	(3,666)	7,904
Other operating income	25	9	21	31	14	(15)	85
Total revenues	6,162	3,836	720	790	162	(3,681)	7,989
Operating expenses	5,807	3,683	334	462	103	(3,681)	6,708
Labour costs	48	31	183	58	81	-	401
Gross operating margin	307	122	203	270	(22)	-	880
Depreciation, amortization, provisions and write-downs	124	67	71	135	36	-	433
Net operating income	183	55	132	135	(58)	-	447
Capex	97	42	76	256	23	-	494

Results by sector first half 2022

millions of euro	Generation and Trading	Market	Waste	Smart Infrastructures	Corporate	Eliminations and adjustments	Total
Revenues from the sale of	7.856	3,814	698	739	152	(3,576)	9,683
goods and services	,,,,,,	0,011			.02	(0,070)	
Other operating income	34	8	16	37	7	(7)	95
Total revenues	7,890	3,822	714	776	159	(3,583)	9,778
Operating expenses	7,623	3,785	330	445	98	(3,583)	8,698
Labour costs	46	29	177	55	74	-	381
Gross operating margin	221	8	207	276	(13)	-	699
Depreciation, amortization, provisions and write-downs	114	68	32	131	26	-	371
Net operating income	107	(60)	175	145	(39)	-	328
Capex	63	31	104	241	24	-	463

5.1 Result sector by sector

Generation and Trading Business Unit

5.3 Market Business Unit

5.4 Waste Business Unit

5.5 Smart Infrastructures Business Unit

5.6 Corporate

Generation and Trading Business Unit



The following is a summary of the main quantitative and economic data relating to the Generation and Trading Business Unit:

307

mln € **Ebidta**

+38.9% compared to 2022

312

GWh
Production of
coal-fired plants

(+149.6% vs 2022)

389

GWh
Photovoltaic and
wind power production

(+63.4% vs 2022)

136

€/MWh Single National Price

(-45% vs 2022)

97

mln € Capex

63 million in 2022 (+54%)

4,678

GWh
Thermoelectric production
from other facilities

(-26.4% vs 2022)

1,422

GWh Hydroelectric production

(+3.9% vs 2022)

-10

€/MWh Clean spark spread

(1 €/MWh in 2022)

Operating figures

Net electricity production GWh	06 30 2023	06 30 2022	Change	% 2023/2022
Net thermoelectric production	4,990	6,477	(1,487)	(23.0%)
- CCGT	3,605	5,918	(2,313)	(39.1%)
- Oil	1,073	434	639	147.2%
- Coal	312	125	187	149.6%
Net production from Renewable Sources	1,811	1,607	204	12.7%
- Hydroelectric	1,422	1,369	53	3.9%
- Photovoltaic	200	195	5	2.6%
- Wind	189	43	146	n.s.
Total net production	6,801	8,084	(1,283)	(15.9%)

The volumes produced in the first half of 2023, at 6,801 GWh, decreased by 15.9%.

In particular, thermoelectric production for the period amounted to 4,990 GWh, down 23% compared to the same period of the previous year (6,477 GWh at June 30, 2022). The lower output of Combined Cycle power plants due to lower contestable demand and higher imports (-39.1%) was partly offset by the higher volumes generated by coal- and oil-fired plants in the first half of this year in response to the demand for maximized output from nongas-fired plants.

Production from renewable sources, on the other hand, amounted to 1,811 GWh and increased compared to the same period last year (+12.7%) thanks to the new wind and photovoltaic plants in the 3 and 4 New perimeters acquired in 2022.

Economic figures

millions of euro	01 01 2023 06 30 2023	01 01 2022 06 30 2022	Change	% 2023/2022
Revenues	6,162	7,890	(1,728)	(21.9%)
Operating expenses	(5,807)	(7,623)	1,816	(23.8%)
Labour costs	(48)	(46)	(2)	4.3%
Gross Operating Margin	307	221	86	38.9%
% of Revenues	5.0%	2.8%		
Depreciation, amortization, provisions and write-downs	(124)	(114)	(10)	8.8%
Net Operating Income	183	107	76	71.0%
% of Revenues	3.0%	1.4%		
Capex	97	63	34	54.0%
FTE	1,072	1,051	21	2.0%

Revenues in the first half of 2023 amounted to 6,162 million euro, down by 1,728 million euro (-21.9%) compared to the first six months of the previous year due to both lower volumes sold and brokered of electricity and lower unit prices.

Operating expenses in the period amounted to 5,807 million euro, a decrease of 23.8% million euro compared to the first half of 2022, mainly due to lower procurement costs for energy raw materials. Maintenance and operating costs, on the other hand, increased by 12 million euro due to the acquisition of new photovoltaic and wind power plants, the increased operation of the Monfalcone and San Filippo plants, and the adjustment of the Istat index of derivation fees.

Labour costs amounted to 48 million euro, up 2 million euro compared to the same period of 2022 (+4.3%). This change was partly due to the increase in FTE (+48 FTE) due to changes in the scope of operations and the expansion of facilities for the development and management of renewable energies, and partly due to an increase in unit costs of almost +2% for salary increases (collective agreements, bonuses and indemnities, and salary policy actions).

Result sector by sector

Generation and Trading **Business Unit**

5.3 Market **Business Unit**

5.4 Waste Business Unit

5.5 Smart Infrastructures **Business Unit**

56 Corporate The Gross Operating Margin of the Generation and Trading Business Unit amounted to 307 million euro, an increase of 86 million euro compared to the first half of 2022 (+39%). Net of the non-recurring items recorded in the two comparison periods (5 million euro in the first half of 2023, zero effect in the same period of 2022), the Ordinary Gross Operating Margin increased by 81 million euro.

The positive change is mainly attributable to:

- hedging strategies, mainly on thermoelectric sources (CCGT and Coal), which made it possible to offset the reduction in the energy scenario;
- higher output of the Monfalcone coal plant;
- contribution of newly acquired photovoltaic and wind power plants.

The positive impacts were partly offset by a decrease in margins on the ancillary services markets (MSD) due to lower requests from Terna and by the lower contribution of combined cycle thermoelectric production.

Depreciation, amortization, provisions and write-downs totalled 124 million euro (114 million euro at June 30, 2022). The change is related for 8 million euro to higher depreciation and amortization, due to the consolidation of newly acquired companies in the renewables segment and capex made in the period July 2022 - June 2023, and for 2 million euro to higher provisions for risks, net of releases.

As a result of the above changes, net operating income amounted to 183 million euro (107 million euro at June 30, 2022).

Capital expenditure in the period under review amounted to approximately 97 million euro and included extraordinary maintenance work of about 27 million euro, of which 17 million euro at thermoelectric plants and 8 million euro at the Group's hydroelectric plants.

Development interventions were also carried out for a total of 69 million euro, of which 31 million euro related to photovoltaic and wind plants (mainly the Matarocco plant) aimed at accelerating the growth of the Group's renewable sources and 37 million euro for interventions on thermoelectric plants (endothermic engines in Cassano and gas turbine upgrade of the combined cycle plants in Piacenza) aimed at guaranteeing flexibility, coverage of demand peaks and balancing the energy needs of the electricity grid.

Market Business Unit



The following is a summary of the main quantitative and economic data relating to the Market Business Unit:

mln € **Ebidta**

8 million in 2022

11,146

Electricity Sales

(+6.6% vs 2022)

Retail market ele customers free market: 1,209 POD

(+16.7% vs 2022)

mln € **Capex**

31 million in 2022

Gas Sales

(+7.1% vs 2022)

Retail market gas customers free market: 1,066 PDR

(+7.5% vs 2022)

Operating figures

Electricity	06 30 2023	06 30 2022	Change	% 2023/2022
Electricity Sales				
Electricity Sales Free Market (GWh)	8,857	9,209	(352)	(3.8%)
Electricity Sales under Greater Protection Scheme (GWh)	277	383	(106)	(27.7%)
Electricity Sales Gradual Protection (GWh)	555	492	63	12.8%
Electricity Sales Safeguard Market (GWh)	1,457	375	1,082	n.s.
Total Electricity Sales (GWh)	11,146	10,459	687	6.6%
POD Electricity				
POD Electricity Free Market (#/1000)	1,209	1,036	173	16.7%
POD Electricity Gradual Protection (#/1000)	461	44	417	n.s.
POD Electricity under Greater Protection Scheme (#/1000)	270	348	(78)	(22.4%)
Total POD Electricity (#/1000)	1,940	1,428	512	35.9%
Gas	06 30 2023	06 30 2022	Change	% 2023/2022
Gas Sales				
Gas Sales Free Market (Mcm)	1,448	1,260	188	14.9%
Gas Sales under Protection Scheme (Mcm)	186	266	(80)	(30.1%)
Total Gas Sales (Mcm)	1,634	1,526	108	7.1%
PDR Gas				
PDR Gas Free Market (#/1000)	1,066	992	74	7.5%
PDR Gas under Greater Protection Scheme (#/1000)	496	581	(85)	(14.6%)
Total PDR Gas (#/1000)	1,562	1,573	(11)	(0.7%)

The quantities are stated gross of losses.

In the first six months of 2023, the Market Business Unit recorded 11,146 GWh of electricity sales, up 6.6% compared to the same period of the previous year. The increase is mainly related to the higher contribution of the Gradual Protection Service and the acquisition, by auction, of customers subject to the safeguard regime and the higher contribution of the Gradual Protection Service.

Gas sales, equal to 1,634 million cubic metres, increased by +71% compared to the first six months of 2022, attributable to the key accounts segment.

With reference to supply points, there was a +35.9% increase in the number of POD related to the electricity market, thanks to the award of the Gradual Protection Service for micro-enterprises from April 2023.

In general, thanks also to the commercial development actions undertaken, the number of electricity and gas supply points served reached a total of 3.5 million units (+17% compared to 2022), of which 1.9 million related to the electricity market and 1.6 million to the gas market.

The POD and PDR figures relate to the mass market.

Economic figures

millions of euro	01 01 2023 06 30 2023	01 01 2022 06 30 2022	Change	% 2023/2022
Revenues	3,836	3,822	14	0.4%
Operating expenses	(3,683)	(3,785)	102	(2.7%)
Labour costs	(31)	(29)	(2)	6.9%
Gross Operating Margin	122	8	114	n.s.
% of Revenues	3.2%	0.2%		
Depreciation, amortization, provisions and write-downs	(67)	(68)	1	(1.5%)
Net Operating Income	55	(60)	115	n.s.
% of Revenues	1.4%	(1.6%)		
Capex	42	31	11	35.5%
FTE	1,034	967	67	6.9%

Revenues amounted to 3,836 million euro (3,822 million euro at June 30, 2022). The change is mainly attributable to the increase in gas and electricity quantities sold, partly offset by the decrease in electricity unit prices.

Operating expenses for the first half of 2023 amounted to 3,683 million euro, down 102 million euro compared to the same period of 2022 as a result of lower energy raw material procurement costs, partially offset by increases in costs supporting customer development and management (particularly ICT costs, indirect channels and marketing).

Labour costs amounted to 31 million euro (29 million euro in the first half of 2022), mainly as a result of the increase in FTE to 1,034 (967 FTE at June 30, 2022). The change is related to the increased hires to strengthen, in line with business development objectives, the organizational structures (in particular the Customer Service area). Unit costs increased by 2% as a result of salary increases.

EBITDA of the Market Business Unit equalled 122 million euro (8 million euro at June 30, 2022).

Net of non-recurring items (-1 million euro in the first half of 2023 and +1 million euro in the same period of 2022), the Ordinary Gross Operating Margin increased by 116 million euro.

The growth in margins for H1 2023 compared to the same period last year was attributable to:

- positive unit margins that fully recover the contraction recorded in H1 2022 mainly due to the different time distribution of fixed-price sales margins, confirming the assumptions of an overall contractual margin on an annual or two-year basis;
- positive contribution of the large customer segment;
- higher volumes of electricity sold to safeguarded customers;
- increased mass-market customer base.

In general, the comparison with the previous year benefits from a progressive return to normality of the energy markets compared to the exceptional nature recorded in 2022, with a recovery in profitability exceeding the levels achieved in the first half of 2021.

Depreciation, Amortization, Provisions and Write-downs amounted to a total of 67 million (68 million euro in the first half of 2022): lower provisions for bad debts (-8 million euro) compared to the corresponding period of the previous year were almost entirely offset by higher amortization for capex for the period July 2022 - June 2023.

As a result of the above changes, net operating income amounted to 55 million euro (negative 60 million euro at June 30, 2022).

Capex for the first half of 2023 amounted to 42 million euro. These capex concerned:

- the energy retail sector with 38 million euro for capitalized charges for the acquisition of new customers, for
 evolutionary maintenance and development of the Hardware and Software platforms, aimed at supporting
 billing and customer management activities and for digital innovation projects relating to the full-digital Group
 company NEN;
- the Energy Solution segment with 4 million euro for energy efficiency projects.

5.1 Result sector by sector

5.2 Generation and Trading Business Unit

5.3 Market Business Unit

5.4 Waste Business Unit

5.5 Smart Infrastructures Business Unit

5.6 Corporate

Waste Business Unit



The following is a summary of the main quantitative and economic data relating to the Waste Business Unit:

mln € **Ebidta**

-1.9% compared to 2022

Capex

104 million in 2022

(-3% vs 2022)

Electricity sold

(-5.9% vs 2022)

Waste disposed of

(+5.9% vs 2022)

of which:

Material recovery disposals

(+11.9% vs 2022)

Energy recovery disposals

(-4.8% vs 2022)

Operating figures

	06 30 2023	06 30 2022	Change	% 2023/2022
Waste collected (Kton)	895	919	(24)	(2.6%)
Residents served (#/1000)	3,900	3,972	(72)	(1.8%)
Electricity sold (GWh)	1,005	1,068	(63)	(5.9%)
Heat sold (GWht)*	875	902	(27)	(3.0%)

(*) quantities at the plant entrance.

Waste disposed of (kton)	06 30 2023	06 30 2022	Change	% 2023/2022
Energy recovery	697	732	(35)	(4.8%)
Material recovery	559	499	60	12.0%
Other	552	476	76	16.0%
Total	1,808	1,707	101	5.9%

The quantities reported are net of intra-group disposals.

The quantity of electricity produced decreased by 6% compared to the first half of the previous year due to the reduced availability of the Acerra plant following increased maintenance shutdowns and the Parona plant due to the construction of a new production line. In addition, the volumes of heat sold decreased by 3% in the period under review as a result of lower demand in the district heating sector.

Net waste disposed of amounted to 1,808 thousand tons (+5.9% compared to the same period of the previous year), recording an increase in waste disposed of by material recovery plants due to the contribution of the new MSWOF Lacchiarella and Cavaglià plants and the higher quantities of paper disposed of.

Economic figures

millions of euro	01 01 2023 06 30 2023	01 01 2022 06 30 2022	Change	% 2023/2022
Revenues	720	714	6	0.8%
Operating expenses	(334)	(330)	(4)	1.2%
Labour costs	(183)	(177)	(6)	3.4%
Gross Operating Margin	203	207	(4)	(1.9%)
% of Revenues	28.2%	29.0%		
Depreciation, amortization, provisions and write-downs	(71)	(32)	(39)	n.s.
Net Operating Income	132	175	(43)	(24.6%)
% of Revenues	18.3%	24.5%		
Capex	76	104	(28)	(26.9%)
FTE	6,680	6,516	164	2.5%

In the first six months of 2023, the Waste Business Unit recorded revenue of 720 million euro, which was substantially in line with the first six months of 2022 (714 million euro as at June 30, 2022): the increase in revenue from the sale of electricity offset the decrease in revenue from paper disposal as a result of the price drop recorded in the first half of 2023 compared to the corresponding period of 2022.

Operating expenses amounted to 334 million euro (330 million euro at June 30, 2022). In the first half of 2022, there were higher costs for biomass procurement, raw material and dust disposal costs for waste-to-energy plants, maintenance charges for treatment plants, and costs for the expansion of operations (MSWOF Lacchiarella and Cavaglià). These increases were partially offset by lower expenses for paper purchases, organic waste disposal and vehicle fuel.

5.1 Result sector by sector

5.2 Generation and Trading Business Unit

5.3 Market Business Unit

5.4 Waste Business Unit

5.5 Smart Infrastructures Business Unit

5.6 Corporate Labour costs stood at 183 million euro, up 6 million euro compared to the first half of 2022, equal to 3.4%. Of this change, 70% was due to an increase in FTE (6,680 FTE in 2023 compared to 6,516 FTE in the previous year) both as a result of changes in perimeter and of hires to strengthen certain services in the Collection and Treatment segment. The further change of about 2 million euro was substantially determined by the effects of the application of the national urban hygiene labour contract.

The Gross Operating Margin of the Waste Business Unit amounted to 203 million euro (207 million euro at June 30, 2022), a decrease of 4 million euro compared to the same period of the previous year.

Net of the non-recurring items recorded in the two comparison periods (+2 million euro in 2023 and +2 million euro in 2022), the Ordinary Gross Operating Margin amounted to 201 million euro (205 million euro at June 30, 2022).

This result was determined by:

- +3 million euro related to the Collection segment mainly due to lower costs for disposal of the organic fraction of waste;
- -6 million euro related to Waste Treatment Plants mainly due to the lower availability of plants, in particular the Acerra and Parona waste-to-energy plants, higher biomass costs partially offset by the positive energy scenario effect, and an increase in the price of glass;
- -1 million euro related to the Industrial Waste Treatment Plants segment, for lower deliveries at the landfill of inert lots of Corteolona.

Depreciation, amortization, provisions and write-downs amounted to 71 million euro (32 million euro in the first half of 2022). The change is the combined effect of higher depreciation and amortization (4 million euro) related to capex made in the period July 2022 - June 2023 and higher provisions for risks (+35 million euro) as a result of lower releases of excess landfill and reclamation reserves (31 million euro) compared to the first half of the previous year due to changes in discount rates.

As a result of these changes, Net Operating Income totalled 132 million euro (175 million euro at June 30, 2022).

Capex for H1 2023 amounted to 76 million euro and regarded:

- · development works for 39 million euro, of which 25 million euro related to waste-to-energy plants (including the construction of line 3 of the Parona waste-to-energy plant and the fume purification line of the Brescia waste-to-energy plant), 5 million euro to material recovery plants, 4 million euro to MSWOF plants (Lacchiarella, Cavaglià and Castelleone) and 4 million euro to other treatment plants.
- 37 million in maintenance work on waste-to-energy plants (17 million euro), treatment plants (7 million euro) and the collection sector (13 million euro).

Smart Infrastructures Business Unit



The following is a summary of the main quantitative and economic data relating to the Smart Infrastructures Business Unit.

Ebidta

-2.2% compared to 2022

Capex

241 million in 2022 (+6.2%)

1,578

RAB Gas

(+6.3% vs 2022)

RAB Electricity

(+15.2% vs 2022)

RAB Water Services

(+11.1% vs 2022)

GWht **Heat sold**

(-7.9% vs 2022)

Operating figures

Reti	06 30 2023	06 30 2022	Change	% 2023/2022
Electricity distributed (GWh)	5,401	5,656	(255)	(4.5%)
Gas distributed (Mcm)	1,440	1,732	(292)	(16.9%)
Water distributed (Mcm)	35	36	(1)	(2.8%)
RAB Electricity (M€) (*)	953	827	126	15.2%
RAB Gas (M€) (*)	1,578	1,485	93	6.3%
RAB Water (M€) (**)	359	323	36	11.1%

^(*) Provisional figures, underlying the calculation of allowed revenues for the period.

In the first half of 2023, the RAB for electricity, gas and water services were up by 15.2%, 6.3% and 11.1%, respectively, thanks to increased capex.

Heat GWht	06 30 2023	06 30 2022	Change	% 2023/2022
SOURCES				
Plants in:	831	861	(30)	(3.5%)
- Lamarmora	106	224	(118)	(52.7%)
- Famagosta	24	43	(19)	(44.2%)
- Tecnocity	27	32	(5)	(15.6%)
- Other plants	674	562	112	19.9%
Purchases from:	1,013	1,134	(121)	(10.7%)
- Third parties	205	230	(25)	(10.9%)
- Other Business Units	808	904	(96)	(10.6%)
Total Sources	1,844	1,995	(151)	(7.6%)
USES				
Sales to end customers	1,626	1,766	(140)	(7.9%)
Distribution losses	218	229	(11)	(4.8%)
Totale Uses	1,844	1,995	(151)	(7.6%)
Electricity from cogeneration	392	199	193	97.0%

Heat sales by the Business Unit in the period in question amounted to 1.8 GWht, a decrease of 7.9% on the volumes sold in the first six months of the previous year following milder temperatures.

Electricity generated increased by 193 GWh due to the contribution of A2A Airport, which has been consolidated since the fourth quarter of 2022.

^(**) Values net of common disposal perimeter.

Notes:

- The figures only refer to district heating and include cold sales. Sales relating to heat management are not included.

- Purchases include the quantities of heat purchased from the Waste Business Unit.

Economic figures

millions of euro	01 01 2023 06 30 2023	01 01 2022 06 30 2022	Change	% 2023/2022
Revenues	790	776	14	1.8%
Operating expenses	(462)	(445)	(17)	3.8%
Labour costs	(58)	(55)	(3)	5.5%
Gross Operating Margin	270	276	(6)	(2.2%)
% of Revenues	34.2%	35.6%		
Depreciation, amortization, provisions and write-downs	(135)	(131)	(4)	3.1%
Net Operating Income	135	145	(10)	(6.9%)
% of Revenues	17.1%	18.7%		
Capex	256	241	15	6.2%
FTE	3,117	3,036	81	2.7%

The Smart Infrastructures Business Unit's revenue for the period amounted to 790 million euro (776 million euro at June 30, 2022). The higher revenues from gas and electricity distribution due to the increase in capex and inflation, the contribution of A2A Airport Energy acquired in September 2022 and the increases related to the activities aimed at obtaining energy savings (Superbonus) were partially offset by lower revenues from the heat segment due to lower volumes sold and the dynamics of unit prices and the decrease related to the Public Lighting segment.

Operating expenses amounted to 462 million euro (445 million euro in the first half of 2022). The change is attributable to the consolidation of A2A Airport for about 50 million euro and to the increased activities related to the Superbonus, partly offset by the decrease in raw material procurement costs (gas and heat) and in energy costs in general.

Labour costs amounted to 58 million euro (55 million euro in the previous year). More than 80% of the change is attributable to the increase in resources: in the first half of 2023, in fact, FTE stood at 3,117, with a change of 81 FTE attributable in part to hires in the second half of 2022 and the first half of 2023 and in part to the change in the scope of consolidation following the consolidation of A2A Airport.

The Gross Operating Margin of the Smart Infrastructures Business Unit in the first half of 2023 was 270 million euro (276 million euro at June 30, 2022).

Net of non-recurring items (+7 million euro in H1 2023; +16 million euro in the same period of the previous year), the Ordinary EBITDA of the Business Unit reached 263 million euro, up 3 million euro with respect to the first six months of 2022.

The change in margins was mainly driven by:

- +7 million euro related to the electricity distribution network due to an increase in revenue allowed for regulatory purposes as a result of increased capex and inflation, revenue from loss equalization and higher connection contributions:
- +7 million euro related to the gas distribution network due to an increase in the revenue constraint allowed for regulatory purposes and lower energy costs;
- -10 million related to the heat segment, due to lower district heating volumes sold and lower unit margins. This
 contraction in margins was partly neutralized by the benefits of the tax credits for non-energy and non-gasconsuming companies under the Aid Decrees, and by the contribution of the new company A2A Airport.

Depreciation, amortization, provisions and write-downs equalled 135 million euro (131 million euro at June 30, 2022). The change is attributable to the combined effect of higher depreciation and amortization for capex made in the period from July 2022 to June 2023 and lower provisions for risks and bad debts.

As a result of the above changes, Net Operating Income amounted to 135 million euro (145 million euro at June 30, 2022).

5.1 Result sector by sector

5.2 Generation and Trading Business Unit

5.3 Market Business Unit

5.4 Waste Business Unit

5.5 Smart Infrastructures Business Unit

5.6 Corporate Capex in the period in question amounted to 256 million euro and regarded:

- in the electricity distribution segment, development and maintenance work on plants and in particular the connection of new users, maintenance work on secondary cabins, the extension of remote control, the refurbishment of the medium and low voltage network, the maintenance and upgrading of primary plants and capex in the launch of the 2G smart meter project (93 million euro);
- in the gas distribution subsector, development and maintenance work on plants relating to the connection of new users and the replacement of medium and low pressure piping and smart gas meters (66 million euro);
- in the integrated water cycle sector, maintenance and development work carried out on the water transport and distribution network, as well as works and restoration works on the sewer networks and purification plants (48 million euro);
- in the district heating and heat management sector, development and maintenance of plants and networks (37 million euro);
- in the public lighting sector for new projects (5 million euro);
- in the Smart City segment, mainly laying fibre optics, radio frequencies and data centres (3 million euro);
- in the e-mobility sector for the installation of new electric energy recharging stations (4 million euro).

Corporate

Economic figures

millions of euro	01 01 2023 06 30 2023	01 01 2022 06 30 2022	Change	% 2023/2022
Revenues	162	159	3	1.9%
Operating expenses	(103)	(98)	(5)	5.1%
Labour costs	(81)	(74)	(7)	9.5%
Gross Operating Margin	(22)	(13)	(9)	69.2%
% of Revenues	(13.6%)	(8.2%)		
Depreciation, amortization, provisions and write-downs	(36)	(26)	(10)	38.5%
Net Operating Income	(58)	(39)	(19)	48.7%
% of Revenues	(35.8%)	(24.5%)		
Capex	23	24	(1)	(4.2%)
FTE	1,708	1,597	111	7.0%

Operating expenses increased 5 million euro mainly due to higher expenses for digitalization, IT security and innovation of the Group and higher external communication costs.

Labour costs increased by 7 million euro due to a higher number of FTE (+111 FTE compared to the same period last year, +7%). This change is mainly attributable to the additions made in the second half of 2022 and in the first six months of the current year to strengthen certain business areas, in line with the Group's development needs and objectives.

The Gross Operating Margin, corresponding to the Corporate structure costs not charged back to the various Group companies in the period under review, amounted to -22 million euro (-13 million at June 30, 2022).

Net of non-recurring items (-1 million euro in the first half of 2023; -2 million euro in the corresponding period of the previous year), the Ordinary EBITDA of the Corporate Business Unit reached -21 million euro, down -10 million euro with respect to the first months of 2022.

The negative change in margins is attributable to higher costs not charged back compared to the previous year.

Depreciation, amortization, provisions and write-downs equalled 36 million euro (26 million euro at June 30, 2022). The change is attributable to higher depreciation and amortization of 4 million euro and higher provisions for risks of 6 million euro.

After depreciation, amortization, provisions and write-downs there was a Net operating loss of 58 million euro (a net operating loss of 39 million euro at June 30, 2022).

Capex in the first six months of 2023 totalled 23 million euro and mainly refer to work on IT systems (15 million euro) and buildings (5 million euro).

5.1 Result sector by sector

5.2 Generation and Trading Business Unit

5.3 Market Business Unit

5.4 Waste Business Unit

5.5 Smart Infrastructures Business Unit

5.6 Corporate



Financial statements of the Half-yearly condensed consolidated financial statements

6.1

Consolidated balance sheet (1)

Assets

millions of euro	Note	06 30 2023	of which Related Parties (note 38) (2)	12 31 2022	of which Related Parties (note 38) (2)
Non-current assets					
Tangible assets	1	6,241		6,162	
Intangible assets	2	3,456		3,515	
Shareholdings carried according to equity method	3	32	32	33	33
Other non-current financial assets	3	64	5	70	14
Deferred tax assets	4	430		363	
Other non-current assets	5	87		86	
Total non-current assets		10,310		10,229	
Current assets					
Inventories	6	290		536	
Trade receivables	7	2,696	92	4,680	157
Other current assets	8	2,237	1	3,289	
Current financial assets	9	32	7	14	10
Current tax assets	10	44		35	
Cash and cash equivalents	11	2,416		2,584	
Total current assets		7,715		11,138	
Non-current assets held for sale	12	43		-	
Total assets		18,068		21,367	

Significant non-recurring events and transactions in the consolidated financial statements are provided in Note 39 as required by Consob Communication DEM/6064293 of July 28, 2006.
 As required by Consob Resolution no. 17221 of March 12, 2010, the effects of related party transactions on the consolidated financial statements are provided in the statements and discussed in Note 38.

Equity and liabilities

millions of euro	Note	06 30 2023	of which Related Parties (note 38) (2)	12 31 2022	of which Related Parties (note 38) (2)
Equity					
Share capital	13	1,629		1,629	
Reserves	14	1,972		1,869	
Result of the year	15	-		401	
Result of the period	15	280		-	
Equity pertaining to the Group		3,881		3,899	
Minority interests	16	562		568	
Total Equity		4,443		4,467	
Liabilities					
Non-current liabilities					
Non-current financial liabilities	17	5,516		5,867	
Employee benefits	18	236		248	
Provisions for risks, charges and liabilities for landfills	19	747		729	
Other non-current liabilities	20	392		370	
Total non-current liabilities		6,891		7,214	
Current liabilities					
Trade payables	21	2,981	31	5,524	79
Other current liabilities	21	2,218	6	3,006	6
Current financial liabilities	22	1,320		1,022	
Tax liabilities	23	215		134	
Total current liabilities		6,734		9,686	
Total liabilities		13,625		16,900	
Liabilities directly associated with non-current assets held for sale		-		-	
Total equity and liabilities		18,068		21,367	

Consolidated balance sheet

6.2 Consolidated income statement

6.3 Consolidated statement of comprehensive income

Consolidated cash-flow statement

Statement of changes in Group equity

6.6 Breakdown of the balance sheet with evidence of the effect of the first consolidation of the 2023 acquisitions

Consolidated income statement (1)

millions of euro	Note	01 01 2023 06 30 2023	of which Related Parties (note 38) (2)	01 01 2022 06 30 2022 Restated (*)	of which Related Parties (note 38) (2)
Revenues					
Revenues from the sale of goods and services		7,904	289	9,683	277
Other operating income		85		95	
Total Revenues	25	7,989		9,778	
Operating expenses					
Expenses for raw materials and services		6,545	7	8,542	10
Other operating expenses		163	27	156	34
Total Operating expenses	26	6,708		8,698	
Labour costs	27	401	1	381	1
Gross operating income - EBITDA	28	880		699	
Depreciation, amortization, provisions and write-downs	29	433		371	
Net operating income - EBIT	30	447		328	
Result from non-recurring transactions	31	-		157	
Financial balance					
Financial income		37	3	16	10
Financial expenses		106		48	
Affiliates		1	1	2	2
Result from disposal of other shareholdings		-		-	
Total financial balance	32	(68)		(30)	
Result before taxes		379		455	
Income taxes	33	91		143	
Result after taxes from operating activities		288		312	
Net result from discontinued operations	34	5		43	
Net result		293		355	
Minorities	35	(13)		(27)	
Group result of the period	36	280		328	
Result per share (in euro):					
- basic		0.0894		0.1049	
- basic from continuing operations		0.0878		0.0934	
- basic from assets held for sale		0.0016		0.0115	
- diluted		0.0894		0.1049	
- diluted from continuing operations		0.0878		0.0934	
- diluted from assets held for sale		0.0016		0.0115	

Significant non-recurring events and transactions in the consolidated financial statements are provided in Note 39 as required by Consob Communication DEM/6064293 of July 28, 2006.
 As required by Consob Resolution no. 17221 of March 12, 2010, the effects of related party transactions on the consolidated financial statements are provided in the

statements and discussed in Note 38.

(*) The values as at 30 June 2022 have been restated to make them consistent with the values as at 30 June 2023 by reclassifying under the item "Net result from

discontinued operations "revenues, operating costs and depreciation related to Water activities subject to sale

Consolidated statement of comprehensive income

millions of euro	06 30 2023	06 30 2022
Net result of the period (A)	293	355
Actuarial gains/(losses) on Employee's Benefits booked in the Net equity	5	40
Tax effect of other actuarial gains/(losses)	(1)	(13)
Total actuarial gains/(losses) net of the tax effect (B)	4	27
Effective part of gains/(losses) on cash flow hedge	(23)	166
Tax effect of other gains/(losses)	6	(51)
Total other gains/(losses) net of the tax effect of companies consolidated on a line-by-line basis (C)	(17)	115
Other gains/(losses) of companies valued at equity net of the tax effect (D)	-	-
Total comprehensive result (A)+(B)+(C)+(D)	280	497
Total comprehensive result attributable to:		
Shareholders of the parent company	267	470
Minority interests	(13)	(27)

With the exception of the actuarial effects on employee benefits recognized in equity, the other effects stated above will be reclassified to the Income Statement in subsequent years.

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Statement of changes in Group equity

6.6 Breakdown of the balance sheet with evidence of the effect of the first consolidation of the 2023 acquisitions

Consolidated cash-flow statement

millions of euro	06 30 2023	06 30 2022
Cash and cash equivalents at the beginning of the period	2,584	964
Operating activities		
Net Result	293	355
Net income taxes	91	143
Net financial interests	69	32
Capital gains/expenses	(1)	(191)
Tangible assets depreciation	251	242
Intangible assets amortization	130	109
Fixed assets write-downs/disposals	3	2
Net provisions	52	22
Result from affiliates	(1)	(2)
Net financial interests paid	(51)	(34)
Net taxes paid	(79)	(12)
Dividends paid	(295)	(295)
Change in trade receivables	1,947	(134)
Change in trade payable	(2,543)	429
Change in inventories	246	(228)
Other changes in net working capital	280	(250)
Cash flow from operating activities	392	188
Investment activities		
Investments in tangible assets	(309)	(304)
Investments in intangible assets and goodwill	(185)	(159)
Investments in shareholdings and securities (*)	(25)	(465)
Cash and cash equivalents from first consolidations asset	8	74
Disposal of fixed assets and shareholdings	43	349
Cash flow from investment activities	(468)	(505)
Free Cash Flow	(76)	(317)

^(*) Cleared of balances in return of shareholders' equity and other balance sheet items.

millions of euro	06 30 2023	06 30 2022
Financing activities		
Changes in financial assets		
Issuance of loans	-	-
Proceeds from loans	6	(2)
Other changes	(17)	(3)
Total changes in financial assets (*)	(11)	(5)
Changes in financial liabilities		
Borrowings/bonds issued	967	1,844
Repayment of borrowings/bond	(1,034)	(890)
Lease payments	(1)	(8)
Other changes	(13)	(17)
Total changes in financial liabilities (*)	(81)	929
Cash flow from financing activities	(92)	924
Change in cash and cash equivalents	(168)	607
Cash and cash equivalents at the end of the period	2,416	1,571

- 6.1 Consolidated balance sheet
- 6.2 Consolidated income statement
- 6.3 Consolidated statement of comprehensive income
- Consolidated cash-flow statement
- 6.5 Statement of changes in Group equity
- 6.6 Breakdown of the balance sheet with evidence of the effect of the first consolidation of the 2023 acquisitions

Statement of changes in Group equity

Changes from January 1, 2022 to June 30, 2022 millions of euro	Share capital	Treasury shares	Cash Flow Hedge	Other Reserves and retained earnings	Result of the period	Total Equity pertaining to the Group	Minority interests	Total Net shareholders equity
Net equity at December 31, 2021	1,629	-	28	1,599	504	3,760	543	4,303
2021 Result allocation				504	(504)	-		-
Distribution of dividends				(283)		(283)	(19)	(302)
IAS 19 reserves (*)				27		27		27
Cash flow hedge reserves (*)			115			115		115
Change in scope								
Other changes						-	(3)	(3)
Group and minorities result of the period					328	328	27	355
Net equity at June 30, 2022	1,629	-	143	1,847	328	3,947	548	4,495

^(*) These form part of the statement of comprehensive income.

Changes from July 1, 2022 to December 31, 2022 millions of euro	Share capital	Treasury shares	Cash Flow Hedge	Other Reserves and retained earnings	Result of the period	Total Equity pertaining to the Group	Minority interests	Total Net shareholders equity
Net equity at June 30, 2022	1,629	-	143	1,847	328	3,947	548	4,495
IAS 19 reserves (*)				(5)	-	(5)		(5)
Cash flow hedge reserves (*)			(116)			(116)		(116)
Change in scope			3	(3)			(3)	(3)
Other changes							3	3
Group and minorities result of the period					73	73	20	93
Net equity at December 31, 2022	1,629	-	30	1,839	401	3,899	568	4,467

^(*) These form part of the statement of comprehensive income.

Changes from January 1, 2023 to June 30, 2023 millions of euro	Share capital	Treasury shares	Cash Flow Hedge	Other Reserves and retained earnings	Result of the period	Total Equity pertaining to the Group	Minority interests	Total Net shareholders equity
Net equity at December 31, 2022	1,629	-	30	1,839	401	3,899	568	4,467
2022 Result allocation				401	(401)	-		-
Distribution of dividends				(283)		(283)	(19)	(302)
IAS 19 reserves (*)				4		4		4
Cash flow hedge reserves (*)			(17)			(17)		(17)
Change in scope						-		-
Other changes				(2)		(2)		(2)
Group and minorities result of the period					280	280	13	293
Net equity at June 30, 2023	1,629	-	13	1,959	280	3,881	562	4,443

^(*) These form part of the statement of comprehensive income.

Breakdown of the balance sheet with evidence of the effect of the first consolidation of the 2023 acquisitions

millions of euro	Note	Consolidated at 12 31 2022	Termica Cologno	VGE 05	Total effect first consolidation acquisitions 2023	Changes	Consolidated at 06 30 2023
Assets							
Non-current assets							
Tangible assets	1	6,162	-	-	-	79	6,241
Intangible assets	2	3,515	3	14	17	(76)	3,456
Shareholdings carried according to equity method	3	33	-	-	-	(1)	32
Other non-current financial assets	3	70	-	-	-	(6)	64
Deferred tax assets	4	363	-	-	-	67	430
Other non-current assets	5	86	-	-	-	1	87
Total non-current assets		10,229	3	14	17	64	10,310
Current assets							
Inventories	6	536	-	-	-	(246)	290
Trade receivables	7	4,680	-	-	-	(1,984)	2,696
Other current assets	8	3,289	-	-	-	(1,052)	2,237
Current financial assets	9	14	-	-	-	18	32
Current tax assets	10	35	-	-	-	9	44
Cash and cash equivalents	11	2,584	8	-	8	(176)	2,416
Total current assets		11,138	8	-	8	(3,431)	7,715
Non-current assets held for sale	12	-	-	-	-	43	43
Total assets		21,367	11	14	25	(3,324)	18,068
Liabilities							
Non-current liabilities							
Non-current financial liabilities	17	5,867	-	1	1	(352)	5,516
Employee benefits	18	248	-	-	-	(12)	236
Provisions for risks, charges and liabilities for landfills	19	729	2	-	2	16	747
Other non-current liabilities	20	370	-	-	-	22	392
Total non-current liabilities		7,214	2	1	3	(326)	6,891
Current liabilities							
Trade payables	21	5,524	-	-	-	(2,543)	2,981
Other current liabilities	21	3,006	-	-	-	(788)	2,218
Current financial liabilities	22	1,022	-	-	-	298	1,320
Tax liabilities	23	134	-	-	-	81	215
Total current liabilities		9,686	-	-	-	(2,952)	6,734
Total liabilities		16,900	2	1	3	(3,278)	13,625
Liabilities directly associated with non-current assets held for sale	24	-	-	-	-	-	-
Liabilities		16,900	2	1	3	(3,278)	13,625

It should be noted that the economic effect of the new acquisitions in the first half of 2023 is not significant.

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6.6 Breakdown of the balance sheet with evidence of the effect of the first consolidation of the 2023 acquisitions



Notes to the Half-yearly condensed consolidated financial statements

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Half-yearly condensed consolidated financial statements

A2A S.p.A. is a company with legal personality organized under the laws of the Italian Republic which operates, also through its subsidiaries ("Group"), both in Italy and abroad.

The A2A Group mainly operates in the following sectors:

- the production, sale and distribution of electricity even from renewable resources;
- the sale and distribution of gas;
- the production, distribution and sale of heat through district heating networks;
- waste management (from collection and sweeping to disposal) and the construction and management of integrated waste disposal plants and systems, also making these available for other operators;
- integrated water cycle management;
- technical consultancy relating to energy efficiency certificates.

The form and content of the Half-yearly condensed consolidated financial statements as at June 30, 2023 complies with the disclosures required by IAS 34 - Interim Financial Reporting issued by the International Accounting Standard Board (IASB) and endorsed by the European Union, and has been prepared in accordance with Legislative Decree 58/1998 (art. 154-ter) and subsequent amendments, as well as the Issuers' Regulations issued by Consob. Therefore, it does not include all the information required by the annual financial statements and must be read together with the Consolidated Annual Financial Report for the year ended December 31, 2022, which was prepared in accordance with the International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB) and endorsed by the European Union. In fact, its purpose is to provide an update since the last annual consolidated financial statements, focusing on new activities, events and circumstances that occurred during the period between December 31, 2022 and June 30, 2023 and providing an explanation of transactions and events that are significant for an understanding of the changes in financial position and result for the period.

The same accounting principles, consolidation criteria and procedures, valuation criteria and estimates illustrated in the preparation of the Consolidated Annual Financial Report as at December 31, 2022 are applied in the Half-yearly condensed consolidated financial statements, a description of which is provided below, with the exception of the international accounting standards in force as from January 1, 2023, which are illustrated in detail in the following section "Changes in International Accounting Standards".

The formats adopted for the financial statements are the same as those used to prepare the Consolidated Annual Financial Report at December 31, 2022.

This Half-yearly condensed consolidated financial statements have been approved on July 28, 2023 by the Board of Directors, which authorized publication, and has been subjected to limited audit by EY S.p.A. in accordance with their appointment by the Shareholders' Meeting of June 11, 2015 for the nine years from 2016 to 2024.

The specific line items "Result from non-recurring transactions" and "Result from disposal of other shareholdings" are in the format of the income statement in order to provide clear and immediate identification of the results arising from non-recurring transactions forming part of continuing operations, separating these from the results from discontinued operations. In particular, it should be noted that the item "Result from non-recurring transactions" is intended to include the results from the sale of investments in subsidiaries and associates and other non-operating expenses/income. This item is presented between net operating income and the financial balance. In this way net operating income is not affected by non-recurring operations, making it easier to measure the effective performance of the Group's ordinary operating activities.

The Half-yearly condensed consolidated financial statements of the A2A Group are presented in millions of euro; the euro is also the functional currency of the economies in which the Group operates.

Changes in international accounting standards

Pursuant to IAS 8, the subsequent paragraph "Accounting standards, amendments and interpretations applicable by the company as of the current year" indicates and briefly illustrates the amendments in force as of January 1, 2023

The following paragraph, "Accounting standards, amendments and interpretations not yet approved by the European Union" instead detail the accounting standards and interpretations already issued, not yet endorsed by the EU and therefore not applicable for the preparation of the 2023 half-year financial report, any impacts of which will then be transposed as of the financial statements of the following years.

Accounting standards, amendments and interpretations applicable as of the current year

- IAS 1 "Presentation of the Financial Statements": issued by the IASB on February 12, 2021 and endorsed on March 2, 2022, which provides guidance and examples to help entities apply materiality judgements to disclosures on accounting standards. The amendments are intended to help entities provide more useful accounting standard disclosures by replacing the requirement for entities to provide their "significant" accounting standards with a requirement to provide disclosures about their "material" accounting standards; in addition, guidance is added on how entities apply the concept of materiality in making accounting standard disclosure decisions. The integration had no impact on the Half-yearly condensed consolidated financial statements of the Group and is not expected to have a significant impact on the disclosure of the accounting policies as an analysis by nature and not just by significance has already been carried out;
- IAS 8 "Accounting policies, changes in accounting estimates and errors": issued by the IASB on February 12, 2021 and endorsed on March 2, 2022. The amendments clarify the distinction between changes in accounting estimates and changes in accounting standards and error correction. They also clarify how entities use measurement techniques and inputs to develop accounting estimates. The amendments had no impact on the Group's Half-yearly condensed consolidated financial statements;
- IAS 12 "Income Taxes": issued by the IASB on May 7, 2021 and endorsed on August 11, 2022 in which it clarifies how to account for deferred taxes on transactions such as leases and decommissioning provisions. In particular, the option, previously provided for, not to calculate deferred taxation upon initial recognition of assets and liabilities deriving from lease contracts and/or decommissioning provisions is eliminated. This addition clarifies, therefore, that all companies are required to recognize deferred taxation on the transactions in question. The amendments had no impact on the Group's Half-yearly condensed consolidated financial statements;
- IFRS 17 "Insurance contracts": issued by the IASB on May 18, 2017 and endorsed on November 19, 2021, applicable to companies that issue insurance contracts. The amendments had no impact on the Group's Half-yearly condensed consolidated financial statements;
- IFRS 17 "Insurance Contracts": issued by the IASB on December 9, 2021 and endorsed on September 8, 2022 in which it adds a transition option relating to comparative information presented on first-time application of IFRS 17 and IFRS 9. The amendment aims to help entities avoid temporary accounting mismatches between financial assets and liabilities of insurance contracts, and therefore at improving the usefulness of comparative information of the financial statements. The amendments had no impact on the Group's Half-yearly condensed consolidated financial statements.

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Notes to the Half-yearly condensed consolidated financial statements

7.1 Half-yearly condensed consolidated financial statements

7.2 Changes in international accounting standards

7.3
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Accounting standards, amendments and interpretations not yet approved by the European Union

- On May 23, 2023, the IASB issued a supplement to IAS 12 "Income Taxes" entitled "International Tax Reform: Rules for the Application of the Second Pillar". The amendments clarify that IAS 12 applies to income taxes arising from the tax law enacted or promulgated to implement the rules established by the OECD 'second pillar', which establishes a coordinated system to ensure that multinational enterprises with revenues in excess of 750 million euro pay a tax of at least 15% on income derived in each of the jurisdictions in which they operate and which is expected to come into force in 2024.
- The amendments introduce: a temporary mandatory exception to the accounting for deferred taxes arising from the jurisdictional implementation of rules and disclosure requirements to help users of financial statements better understand the company's exposure to income taxes arising from such legislation, prior to its effective date.
- The temporary mandatory exception applies immediately, while the other disclosure requirements apply for financial years beginning on or after January 1, 2023, but not for interim periods ending on or before December 31, 2023. No impacts are expected on the Group's economic and financial situation;
- on May 25, 2023, the IASB issued a supplement to IAS 7 "Statement of Cash Flows" and IFRS 7 "Financial Instruments: Disclosures". The amendments clarify the characteristics of supplier financing arrangements (e.g. reverse factoring instruments) and define the information to be provided on the impact of these arrangements on the company's liabilities and cash flows (e.g. terms and conditions, book value and balance sheet item in which financial debts are recorded, with an indication of those for which the financial supplier has already settled the corresponding portion of trade debt, maturity bands of financial debts and comparable trade debts, but not included in arrangements).
- These additions will be applicable to financial statements closed on or after January 1, 2024. The Group is currently assessing the impacts of these amendments:
- on January 23, 2020, July 15, 2020 and October 31, 2022, the IASB issued three additions to IAS1 "Presentation of Financial Statements" that aim to better define the concept of liabilities and the related classification between short and medium/long-term. Specifically, emphasis is placed on the temporal concept of transferring money or other resources to the counterparty to settle the liability. The following aspects are also clarified: what is meant by a subordination right; that the subordination right must exist at the end of the reporting period; classification is not impacted by the probability that the entity will exercise its subordination right; only if a derivative embedded in a convertible liability is itself an equity instrument does the maturity of the liability not impact its classification. Furthermore, the latest amendment specifies that only covenants that an entity must meet by the reporting date will affect the classification of a liability as current or non-current.
- These additions will be applicable to financial statements closed on or after January 1, 2024. The Group is currently assessing the impacts of these amendments;
- on September 22, 2022, the IASB issued a supplement to IFRS 16 "Leases" clarifying how to account for a sale and leaseback transaction that provides for variable payments based on the performance or use of the asset subject to the transaction. The integration will be applicable to financial statements for the period beginning January 1, 2024 and no impacts are expected on the Group's economic and financial situation.

Consolidation area and criteria

The Half-yearly condensed consolidated financial statements of the A2A Group at June 30, 2023 includes the figures of the parent A2A S.p.A. and those of the subsidiaries over which A2A S.p.A. exercises either direct or indirect control. In addition, companies in which the parent exercises joint control with other entities (joint ventures) and those over which it has a significant influence are consolidated using the equity method.

The following changes to the scope of consolidation of the A2A Group are reported:

- the acquisition by AEB S.p.A. of 90% of VGE 5 S.r.l., a company operating in the photovoltaic sector, with the consequent line-by-line consolidation;
- the acquisition by A2A Calore & Servizi S.r.l. of 100% of Termica Cologno S.r.l. with the consequent line-by-line consolidation;
- incorporation of the company A2A Servizi S.r.l. by A2A S.p.A., which owns 100% of it, consolidated on a line-byline basis.

With regard to the effects on the consolidation procedures of certain contracts involving shares/quotas of Group companies, the changes compared to the situation described in the Consolidated Financial Report as at December 31, 2022 are shown below.

a) Earn-out on the purchase of the equity investments made by A2A Rinnovabili S.p.A.

There are no updates to the situation described in the Consolidated Financial Report as at December 31, 2022, to which reference should be made.

b) Options on the shares of Suncity Group S.r.l.

During the first half of the year, the Group, based on new considerations, deemed that the conditions for exercising the option to purchase 74% of Newco's share capital had ceased to exist, and therefore eliminated the value of the debt recognized in previous years.

c) Options on the shares of Electrometal S.r.l.

On December 20, 2019, A2A Ambiente S.p.A. acquired 90% of Electrometal S.r.l..

Subsequently, pursuant to and as a result of the provisions of Article 9.3 of the sale and purchase agreement, on July 7, 2023, A2A Ambiente S.p.A. exercised its option to purchase the remaining 10% for a total consideration of 2 million euro. As a result of this transaction, the group holds 100% of the company.

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Latest available summarized figures for joint ventures (consolidated at equity)

Key figures at December 31, 2022 millions of euro	Bergamo Pulita 50%	PremiumGas 50% (figures at 12 31 2021) (*)	Metamer 50%	Ergosud 50%
Income statement				
Revenues	0.05	0.06	44.6	43.3
Gross Operating Income	(0.25)	0.02	1.3	12.4
% of net revenues	n.s.	n.s.	2.8%	28.7%
Depreciation, amortization and write-downs	-	-	0.4	9.4
Net Operating Income	(0.25)	0.02	0.9	3.0
Result of the year	(0.25)	0.03	0.5	0.9
Balance sheet				
Total assets	2.40	4.2	16.0	145.2
Net equity	(0.17)	1.5	3.1	69.4
Net (debt)	2.13	0.7	1.9	29.9
(*) Figures of the last financial statements available.				
Key figures at December 31, 2021 millions of euro	Bergamo Pulita	PremiumGas 50%	Metamer 50%	Ergosud 50%

Key figures at December 31, 2021 millions of euro	Bergamo Pulita 50%	PremiumGas 50%	Metamer 50%	Ergosud 50%
Income statement				
Revenues	0.04	0.06	24.4	40.9
Gross Operating Income	-	0.02	1.1	7.7
% of net revenues	n.s.	n.s.	4.5%	18.8%
Depreciation, amortization and write-downs	-	-	0.3	10.3
Net Operating Income	-	0.02	0.8	(2.6)
Result of the year	-	0.03	0.5	(2.5)
Balance sheet				
Total assets	2.55	4.2	10.4	155.0
Net equity	0.09	1.5	2.8	68.5
Net (debt)	1.20	0.7	2.3	39.7

Seasonal nature of the business

Given the nature of the Group's ordinary activities, the interim results can vary as the result of the meteorological conditions during the period.

In this respect reference should be made to the comments on performance by Business Unit presented below.

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06 30 2023

millions of euro	Generation and Trading	Market	Waste	Smart Infrastructures	Corporate	Eliminations	Income statemen
	01 01 2023 06 30 2023						
Revenues	6,162	3,836	720	790	162	(3,681)	7,989
- of which inter-sector	3,085	101	160	185	150	(3,681)	
Operating expenses	(5,807)	(3,683)	(334)	(462)	(103)	3,681	(6,708)
- of which inter-sector	(220)	(3,156)	(63)	(237)	(5)	3,681	
Labour costs	(48)	(31)	(183)	(58)	(81)		(401
Gross operating income - EBITDA	307	122	203	270	(22)		880
% of Revenues	5.0%	3.2%	28.2%	34.2%	(13.6%)		11.0%
Depreciation of tangible assets and amortization of intangible assets	(108)	(31)	(75)	(136)	(31)		(381
Net write-downs of fixed assets	-	-	-	-	-		
Provisions for risks	(16)	-	4	-	(3)		(15)
Provisions for credit risks	-	(36)	-	1	(2)		(37
Net operating income - EBIT	183	55	132	135	(58)		447
% of Revenues	3.0%	1.4%	18.3%	17.1%	(35.8%)		5.6%
Result from non-recurring transactions							
Financial balance							(68)
Result before taxes							379
Income taxes							(91)
Result after taxes from operating activities							288
Net result from discontinued operations							Ę
Minorities							(13)
Group result of the period							280
Gross capex (1)	97	42	76	256	23	-	494

⁽¹⁾ See the items "Capex" in the schedules on tangible and intangible assets presented in Notes 1 and 2 to the balance sheet.

06 30 2022 Restated

millions of euro	Generation and Trading	Market	Waste	Smart Infrastructures	Corporate	Eliminations	Income statement
	01 01 2022 06 30 2022 Restated						
Revenues	7,890	3,822	714	776	159	(3,583)	9,778
- of which inter-sector	2,946	120	177	194	146	(3,583)	
Operating expenses	(7,623)	(3,785)	(330)	(445)	(98)	3,583	(8,698)
- of which inter-sector	(225)	(3,045)	(56)	(233)	(24)	3,583	
Labour costs	(46)	(29)	(177)	(55)	(74)		(381)
Gross operating income - EBITDA	221	8	207	276	(13)		699
% of Revenues	2.8%	0.2%	29.0%	35.6%	(8.2%)		7.1%
Depreciation of tangible assets and amortization of intangible assets	(100)	(25)	(71)	(126)	(27)		(349)
Net write-downs of fixed assets	-	-	-	-	-		-
Provisions for risks	(14)	-	39	(2)	1		24
Provisions for credit risks	-	(43)	-	(3)	-		(46)
Net operating income - EBIT	107	(60)	175	145	(39)		328
% of Revenues	1.4%	(1.6%)	24.5%	18.7%	(24.5%)		3.4%
Result from non-recurring transactions							157
Financial balance							(30)
Result before taxes							455
Income taxes							(143)
Result after taxes from operating activities							312
Net result from discontinued operations							43
Minorities							(27)
Group result of the period							328
Gross capex (1)	63	31	104	241	24	-	463

⁽¹⁾ See the items "Capex" in the schedules on tangible and intangible assets presented in Notes 1 and 2 to the balance sheet.

The values as at June 30, 2022 have been restated to make them homogeneous with the values as at June 30, 2023 by reclassifying under the item "Net result from discontinued operations" the revenues, operating expenses and amortization/depreciation referring to gas distribution assets and under the item "Result from non-recurring transactions" the amortization/depreciation relating to buildings subject to sale.

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06 30 2023

millions of euro	Generation and Trading	Market	Waste	Smart Infrastructures	Corporate	Eliminations and adjustments	Totale Group
	06 30 2023	06 30 2023	06 30 2023	06 30 2023	06 30 2023	06 30 2023	06 30 2023
Capital employed							
Net fixed capital	2,587	129	1,601	4,420	4,061	(3,879)	8,919
- Tangible assets	2,372	56	1,272	2,353	222	(34)	6,241
- Intangible assets	380	384	613	2,089	(10)	-	3,456
- Shareholdings and other non-current financial assets	6	16	29	1	3,875	(3,845)	82
- Other non-current assets/liabilities	10	(306)	-	(23)	12	-	(307)
- Deferred tax assets/liabilities	193	10	37	91	99	-	430
- Provisions for risks, charges and liabilities for landfills	(352)	(23)	(305)	(47)	(20)	-	(747)
- Employee benefits	(22)	(8)	(45)	(44)	(117)	-	(236)
Net Working Capital and Other Current Assets/Liabilities	(584)	505	(19)	124	(170)	(3)	(147)
Net Working Capital	(724)	642	85	48	(30)	(16)	5
- Inventories	196	-	34	58	2	-	290
- Trade receivables	1,071	1,468	331	375	69	(618)	2,696
- Trade payables	(1,991)	(826)	(280)	(385)	(101)	602	(2,981)
Other current assets/liabilities	140	(137)	(104)	76	(140)	13	(152)
- Other current assets/liabilities	137	(141)	(95)	56	49	13	19
- Current tax assets/tax liabilities	3	4	(9)	20	(189)	-	(171)
Assets/Liabilities held for sale	9	-	-	34	-	-	43
Total capital employed	2,012	634	1,582	4,578	3,891	(3,882)	8,815

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12 31 2022

millions of euro	Generation and Trading	Market	Waste	Smart Infrastructures	Corporate	Eliminations and adjustments	Totale Group
	12 31 2022	12 31 2022	12 31 2022	12 31 2022	12 31 2022	12 31 2022	12 31 2022
Capital employed							
Net fixed capital	2,549	108	1,582	4,354	4,125	(3,869)	8,849
- Tangible assets	2,369	49	1,257	2,294	217	(24)	6,162
- Intangible assets	379	368	620	2,049	99	-	3,515
- Shareholdings and other non-current financial assets	4	21	29	1	3,873	(3,846)	82
- Other non-current assets/liabilities	12	(306)	-	(15)	13	-	(296)
- Deferred tax assets/liabilities	133	9	36	117	67	1	363
- Provisions for risks, charges and liabilities for landfills	(325)	(25)	(312)	(46)	(21)	-	(729)
- Employee benefits	(23)	(8)	(48)	(46)	(123)	-	(248)
Net Working Capital and Other Current Assets/Liabilities	(668)	741	(113)	102	(180)	(6)	(124)
Net Working Capital	(917)	700	(66)	(28)	(65)	68	(308)
- Inventories	445	-	40	49	2	-	536
- Trade receivables	3,106	2,119	295	491	71	(1,402)	4,680
- Trade payables	(4,468)	(1,419)	(401)	(568)	(138)	1,470	(5,524)
Other current assets/liabilities	249	41	(47)	130	(115)	(74)	184
- Other current assets/liabilities	250	38	(47)	129	(13)	(74)	283
- Current tax assets/tax liabilities	(1)	3	-	1	(102)	-	(99)
Assets/Liabilities held for sale	-	-	-	-	-	-	-
Total capital employed	1,881	849	1,469	4,456	3,945	(3,875)	8,725

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Notes to the balance sheet

It is noted that the consolidation scope as at June 30, 2023 changed compared to December 31, 2022 for to the following operations:

- acquisition and line-by-line consolidation by AEB S.p.A. of 90% of VGE 05 S.r.l., a company operating in the solar sector;
- acquisition and line-by-line consolidation by A2A Calore & Servizi S.r.l. of 100% of Termica Cologno S.r.l.;
- incorporation and line-by-line consolidation of the company A2A Servizi S.r.l. by A2A S.p.A., which owns 100% of it.

Assets

Non-current assets

1) Tangible assets

millions of euro	Balance at 12 31 2022	First-time consolid.		С	hanges duri	ng the period			Balance
		Capex	Other changes	Disposals and sales	Write- downs/ Reversal	Depr.	Total changes	at 06 30 2023	
Land	153		2	(2)					153
Buildings	574		5	41	(2)		(17)	27	601
Plant and machinery	4,125		106	167	(2)		(181)	90	4,215
Industrial and commercial equipment	57		8				(6)	2	59
Other assets	142		9	9			(17)	1	143
Landfills	14						(1)	(1)	13
Construction in progress and advances	800		167	(211)				(44)	756
Leasehold improvements	142		12	(1)			(13)	(2)	140
Assets for rights of use	155			22			(16)	6	161
Total	6,162	-	309	25	(4)	-	(251)	79	6,241
of which:									
Historical cost	14,112		309	6	(30)			285	14,397
Accumulated depreciation	(7,115)			19	26		(251)	(206)	(7,321)
Write-downs	(835)								(835)

[&]quot;Tangible assets" amounted to 6,241 million euro at June 30, 2023 (6,162 million euro at December 31, 2022).

The changes for the period, net of the above effect, recorded an increase of 79 million euro as follows:

- increase of 309 million euro for capex made in the period as further described below;
- decrease of 251 million euro for the depreciation charge for the period;
- net increase for other changes of 25 million euro due to the increase of 22 million euro in usage rights in accordance with IFRS 16, an increase of 10 million euro in the provision for decommissioning and landfill closure and post closure expenses, a decrease of 3 million euro due to the recognition of grants on investments from previous years, a decrease of 2 million euro due to reclassifications to other balance sheet items, and a decrease of 2 million euro due to the reclassification of certain renewable energy assets to assets held for sale;
- decrease of 4 million euro arising from disposals in the period, net of accumulated depreciation.

Capex may be analyzed as follows:

- for the Smart Infrastructures Business Unit, capex amounted to 133 million euro and concerned: for 84 million euro the development and maintenance of electricity distribution systems, the expansion and renovation of the medium and low voltage network, as well as the installation of new electronic meters; for 37 million euro the development of district heating networks; for 3 million euro the Efficiency plan with new LED technology light sources, for 3 million euro interventions on the electric vehicle charging network, for 2 million euro interventions on the network and fiber optic equipment, for 2 million euro interventions on the gas transport network, as well as for 2 million euro the purchase of specific equipment for the gas network;
- for the Generation and Trading Business Unit, the increase was 90 million euro and concerned: 55 million euro for investments in thermoelectric plants, 27 million euro for investments in renewable energy plants, as well as 8 million euro for investments in hydroelectric plants;

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- capex in the Waste Business Unit amounted to 75 million euro and refer to: 60 million euro for work on the Group's waste treatment and disposal plants; 9 million euro for the acquisition and set-up of mobile means for waste collection and 6 million euro for the acquisition of collection facilities;
- for the Corporate Business Unit, investments, amounting to 7 million euro, mainly concerned, for 6 million euro, interventions on buildings in the areas of Milan, Brescia, Como, Monza Brianza and Rome, as well as for 1 million euro the implementation of telecommunications equipment;
- for the Market Business Unit, the increase was 4 million euro, mainly due to the energy efficiency plan at customers.

The Group is continuing to analyze the impact of regulatory amendments and confirms, to date, that the amounts recognized in the financial statements for dry and wet works related to hydroelectric concessions are prudent and recoverable also in accordance with the new regulations.

Tangible assets include "Assets for rights of use" totalling 161 million euro (155 million euro at December 31, 2022), recognized in accordance with IFRS16 and for which the outstanding payable to lessors at June 30, 2023 amounted to 157 million euro (152 million euro at December 31, 2022). Below is a breakdown of "Assets for rights of use" deriving from operating and financial leases at June 30, 2023:

Assets consisting of rights of use millions of euro	Balance at 12 31 2022		Change	Balance at 06 30 2023		
millions of euro	12 31 2022		Other changes	Depr.	Total Changes	
Land	31		2	(3)	(1)	30
Buildings	50		8	(5)	3	53
Plant and machinery	3		2	(1)	1	4
Industrial, commercial equipment and other goods	35		1	(2)	(1)	34
Vehicles	36		9	(5)	4	40
Total	155		22	16	6	161

It is specified that the Group has made use of the option provided for in paragraph 6 of the standard not to apply the provisions of paragraphs 22 to 49 of the standard to the following categories:

- a) Short-term leases;
- b) Leases whose underlying assets are of low value.

2) Intangible assets

millions of euro		First-time consolid.			Balance at 06 30 2023				
	12 31 2022	effect 2023	Capex	Reclass./ Other changes	Disp./ Sales	Write- downs	Amort.	Total changes	00 00 2023
Industrial patents and industrial property rights	51	·	9	3			(14)	(2)	49
Concessions, licences, trademarks and similar rights	2,009		118	(28)	(40)		(87)	(37)	1,972
Goodwill	844	17							861
Assets in progress	155		37	(13)	(44)			(20)	135
Other intangible assets	456		21	(9)			(29)	(17)	439
Total	3,515	17	185	(47)	(84)		(130)	(76)	3,456

"Intangible assets" amounted to 3,456 million euro at June 30, 2023 (3,515 million euro at December 31, 2022) and include the first-time consolidation effect of 17 million euro.

Through the application of IFRIC 12, from financial year 2010 intangible assets also include assets in concession, which relate to gas distribution.

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The changes for the period, net of the above effect, recorded an overall decrease of 76 million euro as follows:

- increase of 185 million euro for Capex made in the period as further described below;
- decrease of 130 million euro for the amortization charge for the period;
- decrease of 81 million euro following the sale of the ASVT S.p.A. integrated water service assets to Acque Bresciane;
- net decrease of 47 million euro for other changes, due to the reclassification to assets held for sale of certain
 assets pertaining to the integrated water service in the amount of 32 million euro, a decrease of 13 million euro in
 environmental certificates for the industrial portfolio, and a decrease of 2 million euro due to the recognition of
 grants on investments from previous years;
- decrease of 3 million euro arising from disposals in the period, net of accumulated amortization.

Capex of "Intangible assets" relate to the following:

- for the Smart Infrastructures Business Unit, capex of 123 million euro are: for development and maintenance work on the gas distribution plants and the replacement of low and medium pressure underground piping for 63 million euro, work on the water transport and distribution network, on the sewage networks and on the purification plants for 47 million euro, as well as implementation of information systems for 13 million euro;
- capex in the Market Business Unit increased 38 million euro due to the implementation of information systems for 19 million euro, and the capitalization of costs incurred to manage customer contracts in accordance with IAS IFRS 15 for 19 million euro;
- for the Corporate Business Unit, the increase was 16 million euro mainly due to the implementation of information systems;
- for the Generation and Trading Business Unit, the increase was 7 million euro mainly due to the implementation of information systems;
- for the Waste Business Unit, capex amounted to 1 million euro mainly due to the implementation of information systems.

The item "Other intangible assets" amounted to 439 million euro at June 30, 2023 (456 million euro at December 31, 2022) and includes:

- 298 million euro for Customer lists related to the acquisition of customer portfolios by Group companies. These values are amortized based on an estimate of the benefits that will arise in future years, taking into account indicators such as the retention rate and churn rate relating to specific types of customers. In particular, the amount in the financial statements is attributable as follows: 86 million euro to the Acinque Group, 82 million euro to TecnoA S.r.l., 56 million euro to A2A Energia S.p.A., 36 million euro to the AEB Group, 11 million euro to A2A Recycling S.r.l., 9 million euro to Electrometal S.r.l., 8 million euro to Asm Energia S.p.A., 8 million euro to Yada Energia S.r.l. and 2 million euro to A2A S.p.A., Aprica S.p.A. and LumEnergia S.p.A.;
- 95 million euro for PPA Società Rinnovabili: the increase in value is linked to the existing agreement with the Energy Services Manager, which allows the affiliated companies to benefit from incentive tariffs for a period of 20 years, which are considerably higher than those existing on the market;
- 36 million euro relating mainly to deferred charges and costs and surface rights and/or easements;
- 9 million euro for PPA of the Agripower group: the increase in value is linked to the existing agreement with the Energy Services Manager, which allows the affiliated companies to benefit from incentive tariffs, which are considerably higher than those existing on the market;
- 1 million euro for Environmental Certificates: emission quotas and White Certificates (Industrial portfolio).

Goodwill

At June 30, 2023, goodwill amounted to 861 million euro:

millions of euro	Balance at 12 31 2022		Change	s during the p	eriod		Balance at
		First-time consolid. acquisitions 2023	PPA Effect	Reclass./ Other Changes	Write- downs	Total changes	- 06 30 2023
CGU:							
A2A Ambiente	473					-	473
A2A Reti Gas	41					-	41
A2A Gas	74					-	74
A2A Calore	22					-	22
A2A Vendita Energia Elettrica	7					-	7
A2A Generazione Rinnovabili	227		14			14	241
Total	844	-	14	-	-	14	858
First-time consolidation effect							
VGE 05 S.r.l.		14	(14)			-	-
Termica Cologno S.r.l.		3				3	3
Total	-	17	(14)	-	-	3	3
Total Goodwill	844	17	-	-	-	17	861

During the first half of 2023, the A2A Group completed the following transactions:

- the acquisition by AEB S.p.A. of 90% of VGE 05 S.r.l., a company operating in the solar sector, and owner of a project (equal to 59.1 MW) for the construction of a photovoltaic plant, which resulted in the recognition of goodwill of 14 million euro that was allocated (in accordance with IFRS 3) at the end of the Purchase Price Allocation to the Generazione Rinnovabili CGU;
- the acquisition by A2A Calore & Servizi S.r.l. of 100% of Termica Cologno S.r.l. company that owns a cogeneration thermoelectric power plant, which resulted in the recognition of goodwill in the amount of 3 million euro. The acquisition is part of the application of IFRS3 and at June 30, 2023, the Purchase Price Allocation has not yet been completed, which will be completed in the timing envisaged by the standard.

The A2A Group conducts the impairment test at least once a year.

During the first half of 2023, for the purposes of applying the IAS 36 accounting standard, management carried out a careful analysis of the results achieved with respect to the 2021-2030 Plan, updated by the Board of Directors on November 22, 2022, also considering the assumptions and results of the impairment process previously carried out for the 2022 financial statements. In light of the analyses conducted on the basis of the evidence available at June 30, 2023 and their foreseeable evolution, no critical issues have emerged and there are no elements that constitute a loss indicator such as to require specific verifications on the recoverability of assets.

3) Shareholdings and other non-current financial assets

millions of euro	Balance at 12 31 2022		during the	Balance at 06 30 2023	of which included in the NFP		
	effect acquisitions 2023		period		12 31 2022	06 30 2023	
Shareholdings carried according to equity method	33	,	(1)	32			
Other non-current financial assets	70		(6)	64	21	14	
Total shareholdings and other non-current financial assets	103	-	(7)	96	21	14	

The following table provides details of the changes in the value of "Shareholdings carried according to equity method":

Shareholdings carried according to equity method millions of euro	Total
Balance at December 31, 2022	33
First-time consolidation effect acquisitions 2023	
Changes:	
- acquisitions and capital increases	
- valuations at equity	1
- write-downs	
- reversals	
- dividends received from shareholdings in companies carried at equity	(1)
- sales and decreases	
- other changes	
- reclassifications	(1)
Total changes	(1)
Balance at June 30, 2023	32

The value of "Shareholdings carried according to equity method" amounted to 32 million euro, down 1 million euro compared to the previous year. Changes include valuations for the period of 1 million euro, the collection of dividends of 1 million euro and other negative changes of 1 million euro.

The details of the shareholdings are provided in annex no. 2 "List of shareholdings carried according to equity method".

"Other non-current financial assets" showed a balance of 64 million euro at June 30, 2023, a decrease of 6 million euro compared to the figure at December 31, 2022, of which 6 million euro related to the repayment of loans to third parties, a decrease of 4 million euro in equity investments in other companies following reclassifications made during the period, the increase of 2 million euro for investments made in innovative start-up companies through Corporate Venture Capital projects and, residually, the increase of 2 million euro for advances paid on investments for future projects for the development of plants for the production of electricity from renewable sources.

At June 30, 2023, "Other non-current financial assets" refer, in addition to the aforementioned case, to medium/ long-term financial receivables for 14 million euro, of which 9 million euro relating to loans to third parties which include, for 6 million euro, receivables for the management of the Cedrasco biocube plant by the subsidiary Bioase in application of IFRIC 12 and for 5 million euro receivables from the Municipality of Brescia concerning the management of public lighting in application of IFRIC 12. The item also includes 15 million euro for the deposit request in a specific current account, of the sums seized by the Court of Taranto as part of the ongoing proceeding against the subsidiary Linea Ambiente S.r.l. for 23 million euro investments made in innovative startups through Corporate Venture Capital projects and for 2 million euro investments in other companies, for details of which see annex no. 3 "List of equity investments in other companies".

4) Deferred tax assets

millions of euro	Balance at 12 31 2022	First-time consolidation effect acquisitions 2023	Changes during the period	Balance at 06 30 2023
Deferred tax assets	363	-	67	430

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"Deferred tax assets" amounted to 430 million euro (363 million euro at December 31, 2022) and showed an increase of 67 million euro due mainly to the recognition of 56 million euro in net deferred tax assets as described below.

It should be noted that in the period under review, the possibility was exercised, pursuant to Article 15, paragraphs 10 et seq. of Legislative Decree No. 185/2008, to revalue, or recognise, the higher tax values of controlling interests arising from the Purchase Price Allocation (PPA) process and recognized in the consolidated financial statements as goodwill and other intangible assets.

Against the payment of the substitute tax of 33 million euro, the derogatory revaluation resulted in the recognition of net deferred tax assets of 56 million euro, relating to off-balance-sheet deductions of the higher revalued values. These deferred tax assets will be released pro rata in connection with off-balance-sheet deductions starting in 2025.

The item includes the net effect, as detailed in the table below to which reference is made, of deferred tax liabilities and deferred tax assets for IRES and IRAP on changes and provisions made solely for tax purposes. The recoverability of "Deferred tax assets" recorded in the financial statements is considered likely, as the future plans envisage taxable income sufficient to use the deferred tax assets.

At June 30, 2023, the amounts relative to deferred tax assets/deferred tax liabilities have been expressed as net ("offsetting") as per IAS 12 standards.

The following table sets out the main deferred tax assets and liabilities.

Detail of deferred tax assets and liabilities	Consolidated financial statements 12 31 2022	Change in consolidation method	Effects First-time consolid.	Provisions (A)	Uses (B)	Adjustment Rates (C)	Other (D)	TOTAL (A+B+C+D)	IFRS 9 to Equity	Revised to Equity	Consolidated financial statements 06 30 2023
Deferred tax liabilities											
Value differences of tangible assets	324							-			324
Application of the finance lease standard (IFRS 16)								-			-
Application of the financial instrument standard (IFRS 9)								-			-
Value differences of intangible assets	98				(6)			(6)			92
Deferred capital gains								-			-
Employee leaving entitlement (TFR)	2							-			2
Goodwill	6							-			6
Other deferred tax liabilities	18							-			18
Total deferred tax liabilities (A)	448	-	-	-	(6)	-	-	(6)	-	-	442
Deferred tax assets											
Taxed risk provisions	133							-		(2)	131
Value differences of tangible assets	438							-			438
Application of the financial instrument standard (IFRS 9)	(22)							-	7		(15)
Bad debts provision	37							-			37
Value differences of intangible assets	8			56				56			64
Grants	16							-			16
Goodwill	160							-			160
Other deferred tax assets	41			56				56	7	(2)	41
Total deferred tax assets (B)	811	-	-	56	-	-	-	56	7	(2)	872
NET EFFECT DEFERRED TAX ASSETS/LIABILITIES (B-A)	363	-	-	56	6	-	-	62	7	(2)	430

5) Other non-current assets

millions of euro	Balance at 12 31 2022	First-time consolidation	Changes during the	e 06 30 2023	of which include	ded in the NFP
		effect acquisitions 2023	period		12 31 2022	06 30 2023
Other non-current assets	74		9	83		
Non-current derivatives	12		(8)	4	12	4
Total other non-current assets	86	-	1	87	12	4

"Other non-current assets" were up by 9 million euro compared to December 31, 2022. This change is mainly attributable to the increase in receivables from Ecobonus, partly offset by the reduction in receivables for past items related to water service revenues.

"Non-current derivative" amounted to 4 million euro, a decrease of 8 million euro compared to December 31, 2022 due to the fair value measurement of financial instruments carried out at June 30, 2023 against the interest rate risk on variable-rate mortgages.

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Current assets

6) Inventories

millions of euro	Balance at 12 31 2022	First-time consolidation effect acquisitions 2023	Changes during the period	Balance at 06 30 2023
- Materials	115		5	120
- Material obsolescence provision	(23)		(1)	(24)
Total materials	92	-	4	96
- Fuel	435		(252)	183
- Others	7		(2)	5
Raw and ancillary materials and consumables	534	-	(250)	284
Third-party fuel	2		4	6
Total inventories	536	-	(246)	290

"Inventories" amounted to 290 million euro (536 million euro at December 31, 2022), net of the related obsolescence provision for 24 million euro (23 million euro at December 31, 2022).

Inventories show a total decrease of 246 million euro, as detailed below:

- 252 million euro attributable to the decrease in fuel inventories, which mainly reflects the trend in fuel prices (stocks include fuel inventories for the production of electricity and gas inventories for the sale and storage thereof), down on the previous year;
- 4 million euro to the increase in fuels held by third parties relating to coal at the Koper warehouse not yet cleared through customs in Italy;
- 3 million euro related to the increase in inventories of materials, including the allocation to the material obsolescence provision;
- other decreases amounting to 1 million euro.

7) Trade receivables

millions of euro	Balance at 12 31 2022	First-time consolidation effect acquisitions 2023	Changes during the period	Balance at 06 30 2023
Trade receivables - invoices issued	1,404		(21)	1,383
Trade receivables – invoices to be issued	3,468		(1,937)	1,531
(Bad debts provision)	(192)		(26)	(218)
Total trade receivables	4,680	-	(1,984)	2,696

At June 30, 2023, "Trade receivables" amounted to 2,696 million euro (4,680 million euro at December 31, 2022), with a decrease of 1,984 million euro. In detail, the changes were as follows:

- for 1,942 million euro, the decrease in trade receivables from customers, which at June 30, 2023, showed a balance of 2,591 million euro (4,533 million euro at December 31, 2022);
- for 45 million euro, the decrease in receivables from associates, which had a balance of 10 million euro (55 million euro at the end of the previous year);
- for 3 million euro, the decrease in receivables from the Municipalities of Milan and Brescia, which amounted to 73 million euro at period-end (76 million euro at December 31, 2022);
- increase in contract work in progress for 6 million euro.

The change in trade receivables is mainly attributable to the reduction in tariffs for the sale of electricity and gas that took place during the half year as well as to the seasonal nature of the business.

It should be noted that the Group occasionally assigns receivables without recourse and has no revolving factoring programmes in place.

The "Bad debts provision", calculated in compliance with IFRS 9, amounted to 218 million euro and showed a net increase of 26 million euro compared to December 31, 2022. This provision is considered adequate to cover the risks to which it relates.

The changes in the Bad debts provision are outlined in the following table:

millions of euro	Balance at 12 31 2022	First-time consolidation effect acquisitions 2023	Accruals	Uses	Other changes	Balance at 06 30 2023
Bad debts provision	192	-	37	(10)	(1)	218

Provisions for the period amounted to 37 million euro, a decrease of 8 million euro compared to the corresponding period of the previous year in relation to a lower credit exposure to customers due to the trend in the energy scenario, which compared to the previous year, saw a reduction in electricity and gas sales tariffs.

In this context, it should be noted that the Group, taking into account the impacts relating to the dynamics of the increase in tariffs starting from the third quarter of 2021 and continued in the 2022 financial year, when assessing the risks of expected credit losses at June 30, 2023, as required by IFRS 9, has prudentially deemed it appropriate to maintain the corrective factor of "expected credit losses" equal to 10 million euro.

This adjustment, albeit slightly lower than the previous year, was maintained in view of the continued uncertainty that has characterized the energy market in recent years, initially caused by the Covid-19 pandemic and subsequently exacerbated by the ongoing conflict between Russia and Ukraine.

Given the high quality of customers, largely subjected to credit check-in during the contractual activation phase, and the significant share of bills paid by direct debit, equal to 63% of the total bills collected, to date there has not been a significant deterioration in payment performance by customers. However, the increase in the value of past due loans, especially for the markets of last instance, in addition to the aforementioned phenomena led to the maintenance of the aforementioned correction factor also at June 30, 2023.

The following is the aging of trade receivables:

millions of euro	12 31 2022	06 30 2023
Trade receivables of which:	4,680	2,696
Current	978	819
Past due of which:	426	564
- Past due up to 30 days	60	111
- Past due from 31 to 180 days	198	237
- Past due from 181 to 365 days	73	95
- Past due over 365 days	95	121
Invoices to be issued	3,468	1,531
Bad debts provision	(192)	(218)

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8) Other current assets

millions of euro	Balance at 12 31 2022	First-time consolidation	Changes during the	Balance at 06 30 2023	of which included in the NFP	
		effect acquisitions 2023	period		12 31 2022	06 30 2023
Current derivatives (commodity derivatives)	2,861		(1,110)	1,751	-	-
Other current assets of which:	428		58	486		
- receivables from Cassa per i Servizi Energetici e Ambientali	140		(29)	111		
- advances to suppliers	10		1	11		
- receivables from employees	1		(1)			
- tax receivables	139		(33)	106		
- receivables related to future years/ periods	34		56	90		
- receivables from Ergosud	-		-	-		
- receivables from social security entities	3		1	4		
- Stamp office	1		-	1		
- receivables for damage compensation	1		-	1		
- receivables for COSAP advances	1		-	1		
- receivables for security deposits	12		(5)	7		
- receivables for RAI fee	3		4	7		
- credit transfer Gesi	2		-	2		
- other sundry receivables	81		64	145		
Total other current assets	3,289	-	(1,052)	2,237	_	-

"Other current assets" showed a balance of 2,237 million euro compared to 3,289 million euro at December 31, 2022, highlighting a decrease of 1,052 million euro.

"Current derivative" show a decrease of 1,110 million euro attributable to a reduction in the fair value measurement due to a lower average difference between subscription prices and market prices.

Receivables from Cassa per i Servizi Energetici e Ambientali, amounting to 111 million euro (140 million euro at December 31, 2022), mainly refer to receivables for equalizations pertaining to both 2023 and to outstanding receivables for equalizations pertaining to previous years and receivables for tariff components, net of collections made in the current year.

Tax receivables, equal to 106 million euro, mainly refer to receivables from the tax authorities for withholding taxes (mainly referring to tax credits for Ecobonus) and excise duties.

Receivables related to future years amounted to 90 million euro (34 million euro at December 31, 2022) and mainly refer to the advance payment of water derivation fees and insurance premiums.

Other receivables include, for 41 million euro, receivables related to the sale of the water unit of the subsidiary Azienda Servizi Valtrompia S.p.A. and for 62 million euro (51 million euro at December 31, 2022), other receivables mainly related to redevelopment and energy efficiency works at condominiums and third parties, for which they will benefit from the tax breaks provided for by the building bonuses.

9) Current financial assets

millions of euro	Balance at First-time Changes				of which included in the NFP		
		acquisitions	period		12 31 2022	06 30 2023	
Other financial assets	14		18	32	14	32	
Total current financial assets	14	-	18	32	14	32	

"Current financial assets" amounted to 32 million euro (14 million euro at December 31, 2022). This item mainly refers to financial receivables from minority shareholders and third parties.

10) Current tax assets

millions of euro	Balance at 12 31 2022	First-time consolidation effect acquisitions 2023	Changes during the period	Balance at 06 30 2023
Current tax assets	35	-	9	44

At June 30, 2023, this item amounted to 44 million euro (35 million euro at December 31, 2022) and refers to IRES and IRAP receivables for amounts requested for reimbursement on payments of previous years, and the remaining credit for Robin Tax paid in previous years.

11) Cash and cash equivalents

millions of euro	Balance at 12 31 2022	First-time consolidation	Changes during the	Balance at 06 30 2023				
		effect acquisitions 2023	effect period quisitions		12 31 2022	06 30 2023		
Cash and cash equivalents	2,584	8	(176)	2,416	2,584	2,416		

"Cash and cash equivalents" at June 30, 2023 represent the sum of the Group's bank and postal asset balances. The effect of the first-time consolidation of acquisitions in 2023 amounted to 8 million euro.

The decrease in the period of 176 million euro was mainly due to the operating cash flow, which saw dividend payments of 283 million euro during the first half of the year.

This item includes term current accounts, in the amount of 160 million euro, related to trading on commodity derivative platforms.

Bank deposits include interest accrued even if it was not credited by the end of the financial period under review.

12) Non-current assets held for sale

millions of euro	Balance at 12 31 2022	First-time consolidation	Changes during the	Balance at 06 30 2023	of which include	ded in the NFP
	effect period acquisitions 2023		12 31 2022	06 30 2023		
Non-current assets held for sale	-		43	43	-	-

At June 30, 2023, "Non-current assets held for sale" amounted to 43 million euro and consisted of 34 million euro in assets pertaining to the integrated water service and 9 million euro for the construction of 2 substations (which will be sold to Terna) for the connection of new production plants as part of the development projects related to renewable sources.

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Equity and liabilities

Equity

Shareholders' equity, which amounted to 4,443 million euro at June 30, 2023 (4,467 million euro at December 31, 2022), is set out in the following table:

millions of euro	Balance at 12 31 2022	Changes during the period	Balance at 06 30 2023
Equity pertaining to the Group:			
Share capital	1,629	-	1,629
Reserves	1,869	103	1,972
Group result of the year/period	401	(121)	280
Total equity pertaining to the Group	3,899	(18)	3,881
Minority interests	568	(6)	562
Total equity	4,467	(24)	4,443

The change of the Shareholders' equity was overall negative for 24 million euro. The net profit for the period generated a positive effect of 280 million euro, offset by the distribution of 283 million euro in dividends.

Lastly, the net fair value loss of cash flow hedge derivatives and the IAS 19 reserves for a total of 13 million euro and the net decrease in minority interests for 6 million euro also affected shareholders' equity.

13) Share capital

"Share capital" amounted to 1,629 million euro and consists of 3,132,905,277 ordinary shares each of nominal value 0.52 euro.

14) Reserves

millions of euro	Balance at 12 31 2022	Changes during the period	Balance at 06 30 2023
Reserves	1,869	103	1,972
of which:			
Change in the fair value of cash flow hedge derivatives and Bond fair value	42	(23)	19
Tax effect	(12)	6	(6)
Cash flow hedge reserves	30	(17)	13
Change in the IAS 19 Revised reserve - Employee Benefits	(73)	5	(68)
Tax effect	19	(1)	18
IAS 19 Revised reserve - Employee Benefits	(54)	4	(50)

[&]quot;Reserves", which amounted to 1,972 million euro (1,869 million euro at December 31, 2022), consist of the legal reserve, extraordinary reserves, and the retained earnings of subsidiaries.

This item also includes the cash flow hedge reserve, positive for 13 million euro, which refers to the period-end measurement of derivatives qualifying for hedge accounting, and the fair value measurement of the Bonds in foreign currency net of the tax effect.

The balance also includes negative reserves of 50 million euro arising from the adoption of IAS 19 Revised "Employee Benefits" which requires actuarial profits and losses to be recognized directly in an equity reserve.

The item includes the equity reserve deriving from the first application of IFRS 9 equal to 32 million euro, and in particular the impairment of trade receivables according to the expected losses model.

15) Result of the period

Positive result for 280 million euro.

16) Minority interests

millions of euro	Balance at 12 31 2022	Changes during the period	Balance at 06 30 2023
Minority interests	568	(6)	562

[&]quot;Minority interests" amounted to 562 million euro (568 million euro at December 31, 2022) and mainly represent the portions of capital, reserves and result pertaining to minority shareholders related to third-party shareholders.

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Liabilities

Non-current liabilities

17) Non-current financial liabilities

millions of euro	Balance at First-tim 12 31 2022 consolidation		Changes during the	Balance at 06 30 2023	of which included in the NFP	
	acquisitions	effect acquisitions 2023	period		12 31 2022	06 30 2023
Non-convertible bonds	4,612		184	4,796	4,612	4,796
Payables to banks	922		(340)	582	922	582
Non-current financial payables for rights of use	132		1	133	132	133
Payables to other lenders	201	1	(197)	5	201	5
Total non-current financial liabilities	5,867	1	(352)	5,516	5,867	5,516

"Non-current financial liabilities" amounted to 5,516 million euro (5,867 million euro at December 31, 2022), with a decrease of 352 million euro, net of the first-time consolidation effect of the period for 1 million euro.

"Non-convertible bonds" amounting to 4,796 million euro (4,612 million euro at December 31, 2022) relate to the following bonds, which are accounted for at amortized cost:

- 299 million euro, maturing in February 2025 and coupon of 1.75%, the nominal value of which is equal to 300 million euro;
- 297 million euro, maturing in October 2027 and coupon of 1.625%, the nominal value of which is equal to 300 million euro;
- 89 million euro, Private Placement in yen maturing in August 2036 and fixed rate of 5.405%, the nominal value of which is equal to 14 billion yen;
- 396 million euro, maturing in July 2029 and coupon of 1.00%, the nominal value of which is equal to 400 million euro;
- 494 million euro, maturing in October 2032 and coupon of 0.625%, the nominal value of which is equal to 500 million euro;
- 496 million euro, maturing in July 2031 and coupon of 0.625%, the nominal value of which is equal to 500 million euro;
- $\bullet \ 495 \ million \ euro, \ maturing \ in \ November \ 2033 \ and \ coupon \ of 1\%, the \ nominal \ value \ of \ which \ is \ equal \ to \ 500 \ million \ euro;$
- 496 million euro, maturing in March 2028 and coupon of 1.5%, the nominal value of which is equal to 500 million euro;
- 596 million euro, maturing in June 2026 and coupon of 2.5%, the nominal value of which is equal to 600 million euro;
- 646 million euro, maturing in September 2030 and coupon of 4.5%, the nominal value of which is equal to 650 million euro;
- 492 million euro, maturing in February 2034 and coupon of 4.375%, the nominal value of which is equal to 500 million euro.

The increase in the non-current component of "Non-convertible bonds" of 184 million euro compared to December 31, 2022 was due to the counter effect of the issue of a new Green bond maturing in 2034, with nominal value 500 million euro and recorded in the financial statements net of amortized cost, partly offset by the reclassification to "Current financial liabilities" of the bond maturing in 2024 (300 million euro) and the decrease in the ECB exchange rate applied to the Private Placement in yen.

"Payables to banks" amounted to 582 million euro. This item recognized the principal portion of loans granted by the European Investment Bank in the amount of 495 million euro and by various credit institutions in the amount of 87 million euro. The decrease of 340 million euro at the end of the reporting period is attributable to the reclassification under current liabilities of portions of capital maturing in the next twelve months and to the early repayment of a bank loan (amounting to 100 million euro) in order to optimize the use of liquidity with a consequent benefit on financial expenses.

"Non-current financial payables for rights of use" amounted to 133 million euro, an increase of 1 million euro compared to December 31, 2022.

"Payables to other lenders" amounted to 5 million euro and show a decrease of 197 million euro, net of the effects deriving from the first-time consolidations for 1 million euro. This decrease is attributable to the early repayment, with the aim of optimizing the use of liquidity, of a loan from Cassa Depositi e Prestiti in the amount of 200 million euro.

For an analysis of the maturity dates of each item of these payables, please refer to the special detailed table in the "Other information" section in chapter 6) Financial Risk Management in paragraph d. Liquidity risk, while for further analysis of the division between fixed-rate and variable-rate payables, please refer to the special detailed table in paragraph b. Interest rate risk.

The following table shows the comparison, for each long-term debt category, between the book value and the fair value, as well as the portion maturing in the following 12 months, as better described in note 22) Current financial liabilities. For listed debt instruments, the fair value is determined using the market price, while for unlisted securities the fair value is determined using valuation models for each category of financial instrument and using market data relating to the closing date of the financial period, including the credit spreads of the A2A Group. Please note that this table does not contain the valuation of financial payables for rights of use.

millions of euro	Nominal value	Book value	Current portion	Non-current portion	Fair value
Bonds	5,448	5,458	662	4,796	4,857
Loans from banks and other lenders	1,208	1,211	624	587	1,134
Total	6,656	6,669	1,286	5,383	5,991

18) Employee benefits

At June 30, 2023, the balance of this item amounted to 236 million euro (248 million euro at December 31, 2022) with changes as follows:

millions of euro	Balance at 12 31 2022	First-time consolidation effect acquisitions 2023	Accruals	Uses	Other changes	Balance at 06 30 2023
Employee leaving entitlement (TFR)	110		19	(7)	(17)	105
Employee benefits	138			(4)	(3)	131
Total employee benefits	248	-	19	(11)	(20)	236

The change is attributable for 19 million euro to provisions for the period, for 11 million euro to the decrease due to disbursements and for 18 million euro to the net decrease related to payments to pension funds. In addition, the actuarial valuations for the period include the decrease resulting from actuarial gains/losses for a total of 2 million euro, as a result of the change in discount rates.

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Technical valuations were carried out on the basis of the following assumptions:

millions of euro	2022	2023
Discount rate	from 3.34% to 3.77%	from 3.67% to 3.92%
Annual inflation rate	2.30%	2.30%
Annual seniority bonus increase rate	2.0%	2.0%
Annual additional months increase rate	0.0%	0.0%
Annual cost of electricity increase rate	2.0%	2.0%
Annual cost of gas increase rate	0.0%	0.0%
Annual salary increase rate	1.0%	1.0%
Annual TFR increase rate	3.2%	3.2%
Average annual increase rate of supplementary pensions	1.1%	1.1%
Annual turnover frequencies	from 2.0% to 5.0%	from 2.0% to 5.0%
Annual TFR advance frequencies	from 2.0% to 2.5%	from 2.0% to 2.5%

It is noted that:

- the annual discount rate used to determine the present value of the bond has been derived, in line with paragraph 83 of IAS 19, from the Iboxx Corporate AA index recognized at the measurement date. For this purpose, the yield with duration comparable to the duration of the work group evaluated was chosen;
- the annual rate of salary increase applied exclusively to companies with fewer than 50 employees on average in 2006 was determined on the basis of the reference data communicated by Group companies;
- the annual rate of TFR increase, according to art. 2120 of the Civil Code, is equal to 75% of inflation plus 1.5 percentage points;
- the annual advance and turnover frequencies are derived from historical experiences of the Group and the frequencies arising from the experience of the Actuary on a significant number of similar companies;
- for the demographic technical bases, it is noted that:
- for "death", the tables TG62 (Premungas), AS62 (Electricity and gas discount) and RG48 (other plans) were used;
- · for "inability", the INPS tables divided by age and gender were used;
- for "retirement", the 100% parameter was used upon reaching the requirements of AGO (Obligatory General Insurance) in accordance with LD no. 04/2019;
- · for the "probability of leaving the family", the table in the INPS model was used for projections to 2010 updated;
- for the "frequency of the various structures of surviving nuclei and average age of members", the table in the INPS model was used for projections to 2010.

19) Provisions for risks, charges and liabilities for landfills

millions of euro	Balance at 12 31 2022	First-time consolidation effect acquisitions 2023	Provisions	Releases	Uses	Other changes	Balance at 06 30 2023
Decommissioning provisions	261		3	(1)	(6)	15	272
Landfill closing and post- closing expense provisions	175			(3)	(5)	3	170
Tax provisions	54						54
Personnel lawsuits and disputes provisions	40					1	41
Other risk provisions	199	2	16		(7)		210
Provisions for risks, charges and liabilities for landfills	729	2	19	(4)	(18)	19	747

At June 30, 2023, provisions for risks, charges and liabilities for landfills amounted to 747 million euro and showed an overall increase of 18 million euro.

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"Decommissioning provisions", which amounted to 272 million euro, include charges for costs of dismantling and recovery of production sites mainly related to thermoelectric plants and waste-to-energy plants. Changes during the period included utilisations of 6 million euro to cover charges incurred during the period under review, net provisions of 2 million euro, and other increases of 15 million euro attributable to the updating of certain appraisals.

The "Landfill closing and post-closing expense provisions", which amounted to 170 million euro, refer to all the costs that will have to be incurred in the future for the sealing of the landfills in cultivation at the reporting date and for the subsequent post-operative management, as required by current regulations. Changes at June 30, 2023 included utilizations of 5 million euro, which represent actual disbursements during the period, net surpluses of 3 million euro related to adjustments to the provisions for landfills following the update of inflation and discount rates, and other increases of 3 million euro.

"Tax provisions", which amounted to 54 million euro, refer to provisions for pending or potential litigation with the tax authorities or territorial entities for direct and indirect taxes, levies and excises.

"Personnel lawsuits and disputes provisions", which totalled 41 million euro, refer to litigation with third parties for 34 million euro and employees for 3 million euro to cover liabilities that may arise from pending litigation, and lawsuits with Social Security Institutions for 4 million euro related to social security contributions that the Group believes it will not be required to pay and are the subject of specific disputes.

"Other risk provisions", which amounted to 210 million euro, refer to provisions relating to public water derivation fees for 100 million euro, to the mobility provision for the costs arising from the corporate restructuring plan, for 1 million euro, as well as other provisions for 109 million euro, which also include the provision related to the dispute over the Grottaglie landfill. The main components of these provisions are net allocations of 16 million euro, of which 12 million euro related to additional charges for hydroelectric derivation surcharges and uses of 7 million euro. The first-time consolidation effects amounted to 2 million euro.

20) Other non-current liabilities

			Changes during the	Balance at 06 30 2023	of which included in the NFP	
		12 31 2022	06 30 2023			
Other non-current liabilities	370		20	390	-	-
Non-current derivatives	-		2	2	-	2
Total other non-current liabilities	370	-	22	392	-	2

At June 30, 2023, this item increased by 22 million euro compared to the balance at the end of the previous year.

"Other non-current liabilities", which showed a balance of 390 million euro, refer to security deposits from customers, for 365 million euro, to liabilities pertaining to future years for 12 million euro, to medium/long-term payables to suppliers for 3 million euro, as well as other non-current liabilities for 10 million euro.

"Non-current derivative instruments" amounted to 2 million euro (no value at December 31, 2022) and refer to the fair value measurement of the hedging derivative relating to the yen bond maturing in 2036.

Current liabilities

21) Trade payables and other current liabilities

millions of euro	Balance at 12 31 2022	First-time consolidation effect acquisitions 2023	Changes during the period	Balance at 06 30 2023	of which included in the NFP	
					12 31 2022	06 30 2023
Advances and payables to customers	43		(27)	16		
Payables to suppliers	5,481		(2,516)	2,965		
Total trade payables	5,524	-	(2,543)	2,981	-	-
Payables to social security institutions	49		1	50		
Current derivatives (commodity derivatives)	2,561		(975)	1,586		
Other current liabilities of which:	396	-	186	582		
Payables to personnel	93		(10)	83		
Payables to Cassa per i Servizi Energetici e Ambientali	83		86	169		
Tax payables	98		91	189		
Payables for tax transparency	5		-	5		
Payables for A.T.O.	2		(1)	1		
Payables to customers for work to be performed	37		3	40		
Payables to customers for interest on security deposits	2		(1)	1		
Payables to third-party shareholders	1		9	10		
Payables for the purchase of equity investments	-		-	-		
Payables for liabilities of competence of following years	-		17	17		
Payables for auxiliary services	-		-	-		
Payables for collections to be allocated	14		(6)	8		
Payables to insurance companies	3		-	3		
Payables for environmental compensation	3		1	4		
Payables for RAI fee	8		8	16		
Sundry payables	47		(11)	36		
Total other current liabilities	3,006	-	(788)	2,218	-	-
Total trade payables and other current liabilities	8,530	-	(3,331)	5,199	-	-

[&]quot;Trade receivables and other current liabilities" amounted to 5,199 million euro (8,530 million euro at December 31, 2022), representing a decrease of 3,331 million euro.

[&]quot;Trade payables" amounted to 2,981 million euro and show a decrease of 2,543 million euro compared to the close of the previous financial year. The decrease is mainly attributable to seasonality dynamics as well as energy commodity prices.

[&]quot;Payables to social security institutions" amounted to 50 million euro, up 1 million euro compared to December 31, 2022 and relate to the Group's debt position with social security and pension institutions.

[&]quot;Current derivative instruments" amounted to 1,586 million euro (2,561 million euro at December 31, 2022) and refer to the fair value valuation of commodity derivatives. The decrease is mainly attributable to a decrease in fair value valuation due to a lower average difference between subscription prices and market prices.

"Other current liabilities" mainly refer to:

- payables to employees for 83 million euro (93 million euro at December 31, 2022), relating to payables to
 employees for the productivity bonus accrued during the period, as well as the expense for holidays accrued
 but not taken at June 30, 2023;
- payables to Cassa per i Servizi Energetici e Ambientali for 169 million euro (83 million euro at December 31, 2022), regarding the payable for the tariff components, invoiced and not yet paid, as well as the payable for equalization liabilities related both to prior years and the year in question;
- tax payables for 189 million euro (98 million euro at December 31, 2022) related to payables to the tax authorities for excise, withholding taxes and VAT;
- payables to customers for work to be performed during the next financial year in the amount of 40 million euro (37 million euro at December 31, 2022).

22) Current financial liabilities

millions of euro	Balance at 12 31 2022	First-time consolidation	Changes during the period	Balance at 06 30 2023	of which included in the NFP	
		effect acquisitions 2023			12 31 2022	06 30 2023
Non-convertible bonds	338		324	662	338	662
Payables to banks	651		(27)	624	651	624
Current financial payables for rights of use	31		3	34	31	34
Payables to other lenders	2		(2)	-	2	-
Total current financial liabilities	1,022	-	298	1,320	1,022	1,320

"Current financial liabilities" amounted to 1,320 million euro (1,022 million euro recorded at December 31, 2022) and showed an increase of 298 million euro.

"Non-convertible bonds" amounted to 662 million euro and show an increase of 324 million euro, due to the reclassification from "Non-current financial liabilities" of the bond maturing in March 2024.

Current "Payables to banks", which amounted to 624 million euro, comprises the principal portion of loans granted by the European Investment Bank, in the amount of 71 million euro, by various credit institutions, in the amount of 463 million euro, by utilisation of "Hot money" lines, in the amount of 87 million euro, and accrued interest net of amortized cost, in the amount of 3 million euro. The year-on-year decrease of 27 million euro was mainly related to the repayment of a revolving credit line in the amount of 20 million euro and the reclassification from "Non-current financial liabilities" of residual loans due within the next twelve months, net of the portions repaid during the period.

"Current financial payables for rights of use" amounted to 34 million euro, an increase of 3 million euro compared to the previous year.

Current "Payables to other lenders" were zero, as a result of the repayment of outstanding payables at December 31, 2022 and amounting to 2 million euro.

23) Tax liabilities

millions of euro	Balance at 12 31 2022	First-time consolidation effect acquisitions 2023	Changes during the period	Balance at 06 30 2023
Tax liabilities	134	-	81	215

Tax liabilities amounted to 215 million euro (134 million euro at December 31, 2022) representing an increase of 81 million euro over the previous year-end.

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24) Net debt (pursuant to Communication ESMA/32-382-1138)

The following table provides details of net financial debt:

millions of euro	Note	12 31 2022	First-time consolidation effect acquisitions 2023	06 30 2023
Bonds - non-current portion	17	4,612		4,796
Bank loans - non-current portion	17	922		582
Non-current payables to other lenders	17	201	1	5
Non-current financial payables for rights of use	17	132		133
Other non-current liabilities	20	-		2
Total medium/long-term debt		5,867	1	5,518
Non-current financial assets - related parties	3	(5)		(5)
Non-current financial assets	3	(16)		(9)
Other non-current assets	5	(12)		(4)
Total medium/long-term financial receivables		(33)		(18)
Total non-current net debt		5,834	1	5,500
Bonds - current portion	22	338		662
Bank loans - current portion	22	651		624
Current amounts due to other providers of finance	22	2		-
Current financial payables for rights of use	22	31		34
Other current liabilities	21	-		-
Total short-term debt		1,022		1,320
Other current financial assets	9	(12)		(31)
Financial assets – related parties	9	(2)		(1)
Total short-term financial receivables		(14)		(32)
Cash and cash equivalents	11	(2,584)	(8)	(2,416)
Total current net debt		(1,576)	(8)	(1,128)
Net debt		4,258	(7)	4,372

The Group net financial position was 4,372 million euro.

Insofar as the disclosure about indirect financial debt is concerned, the Group has identified financial commitments due within one year in connection with employee benefits, decommissioning provisions and liabilities for landfills, tax disputes and reverse factoring, amounting to about 85 million euro.

Pursuant to IAS 7 "Cash Flow Statement", the following are the changes in financial assets and liabilities:

millions of euro	12 31 2022	Cash flow		Non-cash flow		06 30 2023
			First-time consolidation effect acquisitions 2023	Change in fair value	Other changes	
Bonds	4,950	523		(11)	(4)	5,458
Financial payables	1,939	(583)	1		21	1,378
Other liabilities	-	-		2		2
Financial assets	(35)	(16)			5	(46)
Other activities	(12)			8		(4)
Net liabilities deriving from financing activities	6,842	(76)	1	(1)	22	6,788
Cash and cash equivalents	(2,584)	176	(8)			(2,416)
Net debt	4,258	100	(7)	(1)	22	4,372

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For changes in the scope of consolidation as at June 30, 2023, please refer to the "Notes to the Balance Sheet Items" section.

Moreover, the economic figures at June 30, 2023 are not consistent with the corresponding period of the previous year due to the following extraordinary transactions in 2022:

- acquisition, in September 2022, and line-by-line consolidation by A2A Calore & Servizi S.r.l. of 100% of A2A Airport Energy S.p.A., a company engaged in the production and sale of electricity, heat and cooling;
- acquisition by A2A Rinnovabili S.p.A. of 100% of 4New S.r.l. and 3 New & Partners S.r.l., companies operating in
 the solar and wind power sectors, consolidated as of June 2022. A2A Rinnovabili S.p.A. also acquired, through
 its subsidiary 3 New & Partners S.r.l., 100% of 3 New & Partners Rinnovabili S.r.l. (a company incorporated in
 November 2022) resulting in the line-by-line consolidation, as of November 2022, of Daunia Calvello S.r.l. and
 Daunia Serracapriola S.r.l., companies that hold a portfolio of wind farms in Italy, previously consolidated at
 equity.

It should be noted that certain income statement items, referring to assets related to the integrated water service in accordance with IFRS 5, have been reclassified to "Net result from discontinued operations". As a result, the values as at June 30, 2022 have been restated.

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25) Revenues

Revenues for the period totalled 7,989 million euro (9,778 million euro at June 30, 2022) and therefore decreased by 1,789 million euro. Details of the more significant items are as follows:

Revenues millions of euro	06 30 2023	06 30 2022 Restated	Change	% June 2023/2022
Revenues from the sale of goods	7,180	9,033	(1,853)	(20.5%)
Revenues from services	724	650	74	11.4%
Total revenues from the sale of goods and services	7,904	9,683	(1,779)	(18.4%)
Other operating income	85	95	(10)	(10.5%)
Total revenues	7,989	9,778	(1,789)	(18.3%)

The change, compared to the corresponding period of the previous year, is attributable to the reduction in revenues in the wholesale energy markets both due to the lower unit prices and the lower volumes sold and traded of commodities, partially offset by the higher quantities sold of electricity and gas in the retail markets and by the contribution of the consolidation of A2A Airport Energy, a company acquired in September 2022.

Further details of the main items are as follows:

millions of euro	06 30 2023	06 30 2022 Restated	Change	% June 2023/2022
Sale and distribution of electricity	4,399	6,021	(1,622)	(26.9%)
Sale and distribution of gas	2,478	2,668	(190)	(7.1%)
Sale of heat	156	193	(37)	(19.2%)
Sale of materials	36	47	(11)	(23.4%)
Sale of water	43	34	9	26.5%
Sales of environmental certificates	49	55	(6)	(10.9%)
Connection contributions	19	15	4	26.7%
Total revenues from the sale of goods	7,180	9,033	(1,853)	(20.5%)
Services to customers	724	650	74	11.4%
Total revenues from services	724	650	74	11.4%
Total revenues from the sale of goods and services	7,904	9,683	(1,779)	(18.4%)
Reintegration of costs – S. Filippo del Mela plant (Essential Unit plant)	-	6	(6)	(100.0%)
Damage compensation	4	3	1	33.3%
Rents receivable	2	2	-	0.0%
Contingent assets	14	14	-	0.0%
Incentives for production from renewable sources (feed-in tariff)	19	23	(4)	(17.4%)
Other revenues	46	47	(1)	(2.1%)
Other operating income	85	95	(10)	(10.5%)
Total revenues	7,989	9,778	(1,789)	(18.3%)

The item "Other operating income" showed a decrease of 10 million euro mainly due to lower revenues for the reinstatement of generation costs incurred for the San Filippo del Mela plant (essential plant) pursuant to Resolution 803/2016 for 6 million euro, lower revenues linked to incentives on net production from renewable sources for 4 million euro, lower other revenues for 1 million euro partially offset by higher compensation for damages for 1 million euro.

Further details on the reasons for the performance of revenues relating to the various Business Units can be found in the paragraph "Result by sector".

26) Operating expenses

"Operating expenses" amounted to 6,708 million euro (8,698 million euro at June 30, 2022), therefore representing a decrease of 1,990 million euro.

The main components of this item are as follows:

Operating expenses millions of euro	06 30 2023	06 30 2022 Restated	Change	% June 2023/2022
Expenses for raw materials and consumables	5,495	7,679	(2,184)	(28.4%)
Expenses for services	1,050	863	187	21.7%
Total expenses for raw materials and services	6,545	8,542	(1,997)	(23.4%)
Other operating expenses	163	156	7	4.5%
Total operating expenses	6,708	8,698	(1,990)	(22.9%)

"Total expenses for raw materials and services" amounted to 6,545 million euro (8,542 million euro at June 30, 2022), decreasing by 1,997 million euro.

This increase was due to the combined effect of the following factors:

- a decrease of 2,621 million euro in the purchase of raw materials and consumables, due to the decrease in costs for the purchase of power and fuel of 2,658 million euro, the increase in the costs relating to the purchase of environmental certificates of 28 million euro, the decrease in purchase of materials of 4 million euro and an increase of 13 million euro arising from hedging gains/losses on operating derivatives;
- an increase of 187 million euro in costs for delivery, subcontracted work and services;
- the increase in inventories of fuel and materials for 437 million euro.

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For further information, the following table sets out details of the more significant components:

millions of euro	06 30 2023	06 30 2022 Restated	Change	% June 2023/2022
Purchases of power and fuel	4,863	7,521	(2,658)	(35.3%)
Purchases of materials	92	96	(4)	(4.2%)
Purchases of water	1	1	-	0.0%
Hedging losses on operating derivatives	7	2	5	n.s.
Hedging gains on operating derivatives	(4)	(12)	8	(66.7%)
Purchases of emission certificates and allowances	299	271	28	10.3%
Total costs for raw materials and consumables	5,258	7,879	(2,621)	(33.3%)
Delivery and transmission costs	584	483	101	20.9%
Maintenance and repairs	140	84	56	66.7%
Other services	326	296	30	10.1%
Total costs for services	1,050	863	187	21.7%
Change in inventories of fuel and materials	237	(200)	437	n.s.
Total costs for raw materials and services	6,545	8,542	(1,997)	(23.4%)
Leasehold improvements	55	59	(4)	(6.8%)
Concession fees	60	56	4	7.1%
Contributions to territorial entities, consortia and ARERA	6	6	-	0.0%
Taxes and duties	19	18	1	5.6%
Damages and penalties	4	2	2	100.0%
Contingent liabilities	11	8	3	37.5%
Other costs	8	7	1	14.3%
Other operating costs	163	156	7	4.5%
Total operating costs	6,708	8,698	(1,990)	(22.9%)

Trading margin

The following table sets out the results arising from the Trading Portfolio, including the effect of changes in derivative instruments; these figures relate to trading in electricity, gas and environmental certificates.

millions of euro	Note	06 30 2023	06 30 2022	Change
Revenues	25	4,819	(1,475)	6,294
Operating expenses	26	(4,770)	1,521	(6,291)
Total trading margin		49	46	3

The trading margin was positive for 49 million euro, an increase of 3 million euro compared to June 30, 2022.

The first half of 2023 marked the continuation of a trend of price moderation, which had begun in the last quarter of 2022, thanks to the ample availability of Liquefied Natural Gas supplies and the reduction in energy consumption, attributable to the mildness of the winter season.

Due to uncertainties about the availability of winter supplies, prices on next winter's energy deliveries are assumed to maintain a significant risk premium.

Also adding to the volatility of spark spread prices on short-term deliveries was the weather uncertainty with fluctuating forecasts on the availability of hydroelectric sources.

In this scenario of extensive volatility arbitrage, it was therefore possible to trade profitably, benefiting trading, flow brokering, price quotation and market making.

27) Labour costs

Net of capitalized expenses, labour costs at June 30, 2023 amounted to 401 million euro (381 million euro at June 30, 2022).

"Labour costs" may be analysed as follows:

Labour costs millions of euro	06 30 2023	06 30 2022 Restated	Change	% June 2023/2022
Wages and salaries	311	295	16	5.4%
Social security charges	103	99	4	4.0%
Employee leaving entitlement (TFR)	19	18	1	5.6%
Other costs	23	21	2	9.5%
Total labour costs before capitalizations	456	433	23	5.3%
Capitalized labour costs	(55)	(52)	(3)	5.8%
Total labour costs	401	381	20	5.2%

The table below shows the average number of employees by category:

	06 30 2023	06 30 2022	Change
Managers	197	203	(6)
Middle Managers	883	810	73
White-collar workers	6,197	5,906	291
Blue-collar workers	6,499	6,465	34
Total	13,776	13,384	392

At June 30, 2023, the average labour cost per capita amounted to 29.11 thousand euro. In the corresponding period of the previous year, it was 28.47 thousand euro.

The increase is mainly attributable to the increase in the existing workforce, the salary increases provided for by national collective labour agreements, and remuneration policy actions.

At June 30, 2023, the Group had 13,841 employees. At June 30, 2022, the Group had 13,511 employees.

Other labour costs include, for 1 million euro (value less than 1 million euro at June 30, 2022) costs relating to the total cost of the company's restructuring plan related to future staff leaving for redundancy.

28) Gross operating income

As a result of the above changes, consolidated "Gross operating income" at June 30, 2023 amounted to 880 million euro (699 million euro at June 30, 2022).

Further details may be found in the section "Results sector by sector".

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29) Depreciation, amortization, provisions and write-downs

"Depreciation, amortization, provisions and write-downs" totalled 433 million euro (371 million euro at June 30, 2022), representing an increase of 62 million euro

The following table provides details of the individual items:

Depreciation, amortization, provisions and write-downs millions of euro	06 30 2023	06 30 2022 Restated	Change	% June 2023/2022
Amortization of intangible assets	130	107	23	21.5%
Depreciation of tangible assets	251	242	9	3.7%
Total amortization, depreciation and write-downs	381	349	32	9.2%
Provisions for risks	15	(24)	39	n.s
Bad debt provision on receivables recognized as current assets	37	46	(9)	(19.6%)
Total depreciation, amortization, provisions and write-downs	433	371	62	16.7%

[&]quot;Depreciation, amortization and write-downs" amounted to 381 million euro (349 million euro for the six months ended June 30, 2022).

Amortization of intangible assets amounted to 130 million euro (107 million euro at June 30, 2022). Amortization of intangible assets increased by 23 million euro, of which 8 million euro related to the integrated water service and gas distribution and metering, 6 million euro to the implementation of information systems, 6 million euro to changes in the scope of consolidation, and 3 million euro to the new customer lists of Yada Energia and A2A Energia.

Depreciation of tangible assets show an increase of 9 million euro compared to June 30, 2022 and includes:

- higher depreciation of 10 million euro resulting from the first consolidation of the companies acquired in 2022;
- higher depreciation of 8 million euro, mainly relating to the investments, which went into production after June 30, 2022;
- higher depreciation of 2 million euro for rights of use;
- lower depreciation of 4 million euro following the change of the useful life of the San Filippo del Mela plant to 2025;
- lower depreciation of 4 million euro related to the increase in discount rates on the closure/post closure provisions for landfills and decommissioning;
- lower depreciation of 3 million euro related to the disinvestment plan for the assets of the Linea 1 waste-to-energy treatment and storage plant in Parona.

The "Provisions for risks" had a net effect of 15 million euro (net positive effect of 24 million euro at June 30, 2022) due to accruals for the period of 19 million euro relating to the provision for public water derivation fees of 13 million euro, provisions for closure and postclosure expenses on landfills of 3 million euro and other provisions of 3 million euro, adjusted by surpluses of 4 million euro mainly as a result of the release of provisions for closure and post-closure expenses on landfills and decommissioning.

For further information, reference is made to note 19) Provisions for risks, charges and liabilities for landfills.

The "Bad debt provision" amounted to 37 million euro (46 million euro at June 30, 2022), consisting of the accrual for the period.

30) Net operating income

"Net operating income" amounted to 447 million euro (328 million euro at June 30, 2022).

31) Result from non-recurring transactions

The "Result from non-recurring transactions" had no value, amounted to 157 million euro as at June 30, 2022 and referred to the gain deriving from the sale of three properties located in Milan, which took place in February 2022.

32) Financial balance

The "Financial balance" closed with net expense of 68 million euro (net expense of 30 million euro at June 30, 2022).

Details of the more significant items are as follows:

Financial balance millions of euro	06 30 2023	06 30 2022 Restated	Change	% June 2023/2022
Financial income	37	16	21	n.s.
Financial expenses	(106)	(48)	(58)	n.s.
Portion of income and expenses when shareholdings are carried at equity	1	2	(1)	(50.0%)
Total financial balance	(68)	(30)	(38)	n.s.

"Financial income" amounted to 37 million euro (16 million euro at June 30, 2022) and may be analyzed as follows:

Financial income millions of euro	06 30 2023	06 30 2022 Restated	Change	% June 2023/2022
Bank income	24	-	24	n.s.
Realized on financial derivatives	-	2	(2)	n.s.
Other financial income of which:	13	14	(1)	(7.1%)
Financial income from the Municipality of Brescia (IFRIC 12)	3	5	(2)	(40.0%)
Foreign exchange gains	3	1	2	n.s.
Other income	7	8	(1)	(12.5%)
Total financial income	37	16	21	n.s.

The increase in income from credit institutions is mainly attributable to the increase in lending rates applied to the investment of short-term liquidity.

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"Financial expenses", which amounted to 106 million euro, increased by 58 million euro compared to June 30, 2022, and may be analyzed as follows:

Financial expenses millions of euro	06 30 2023	06 30 2022 Restated	Change	% June 2023/2022
Interest on bond loans	61	28	33	n.s.
Interest charged by banks	20	5	15	n.s.
Interest on Cassa Depositi e Prestiti loans	1	-	1	n.s.
Realized on financial derivatives	-	1	(1)	n.s.
Decommissioning costs	5	3	2	66.7%
Other financial expenses of which:	19	11	8	72.7%
Discounting charges	7	4	3	75.0%
Financial expenses (IFRS 16)	1	1	-	0.0%
Financial expenses (IFRIC 12)	1	2	(1)	(50.0%)
Foreign exchange losses	3	1	2	n.s.
Other expenses	7	3	4	n.s.
Total financial expenses before capitalizations	106	48	58	n.s.
Capitalized financial expenses	-	-		
Total financial expenses	106	48	58	n.s.

The increase in interest on bonds in the amount of 33 million euro is attributable to the bond issues made during 2022 (totalling 1,750 million euro), which contribute for all of the first six months of 2023, and the 500 million euro bond issue made during the first guarter of 2023.

The increase in financial expenses to credit institutions, amounting to 15 million euro, is mainly attributable to the rise in the interest rate curve, as a result of the restrictive monetary policies implemented by central banks to counter the growing inflationary pressure, which led to higher expenses on gross financial debt at variable and non-hedged rates. This deterioration was more than offset by the variable-rate remuneration of liquidity (as described in financial income), which balances the interest rate risk on the Group's variable and unhedged debt.

The Equity method valuation of shareholdings was positive for 1 million euro (2 million euro at June 30, 2022), mainly attributable to the positive valuation of the shareholdings held in some associated companies.

33) Income taxes

"Income taxes" in the period in question equalled 91 million euro (143 million euro at June 30, 2022) and include:

- taxes of the period totaling 152 million euro;
- deferred tax assets of -56 million euro;
- deferred tax liabilities of -5 million euro.

It is highlighted that on the occasion of the closing of the 2023 half-year report, the A2A Group decided to estimate the tax for the period for all Group companies by adopting the tax rate criterion based on the best estimate of the Group's weighted average rate expected for the entire year.

It should be noted that in the period under review, the possibility was exercised, pursuant to Article 15, paragraphs 10 et seq. of Legislative Decree No. 185/2008, to revalue, or recognise, the higher tax values of controlling interests arising from the Purchase Price Allocation (PPA) process and recognized in the consolidated financial statements as goodwill and other intangible assets.

Against the payment of the substitute tax of 33 million euro, the derogatory revaluation resulted in the recognition of net deferred tax assets of 56 million euro, relating to off-balance-sheet deductions of the higher revalued values. These deferred tax assets will be released pro rata in connection with off-balance-sheet deductions starting in 2025.

34) Net result from discontinued operations

The "Net result from discontinued operations" amounted to 5 million euro (43 million euro as at June 30, 2022) and refers to the reclassification of revenues, operating expenses and depreciation and amortization related to the integrated water service held for sale. The value at June 30, 2022 has been restated and refers to the gain related to the sale of some assets concerning gas distribution referring to ATEM considered non-strategic for the Group for 36 million euro and for 7 million euro to the items concerning the integrated water service reclassified for the purposes of a homogeneous comparison.

35) Result of minorities

The "Result of minorities" is negative for the Group for 13 million euro and mainly includes the portion attributable to minority interests of the Acinque Group and the AEB Group. In the corresponding period of the previous year, the item showed a negative balance for the Group for 27 million euro.

36) Group result of the period

The "Group result of the period" was positive for 280 million euro (positive for 328 million euro at June 30, 2022).

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Earnings per share

37) Earnings per share

	01 01 2023 06 30 2023	01 01 2022 06 30 2022 Restated
Earnings (loss) per share (in euro)		
- basic	0.0894	0.1049
- basic, from continuing operations	0.0878	0.0934
- basic, from assets held for sale	0.0016	0.0115
- diluted	0.0894	0.1049
- diluted, from continuing operations	0.0878	0.0934
- diluted, from assets held for sale	0.0016	0.0115
Weighted average number of outstanding shares for the calculation of earnings (loss) per share		
- basic	3,132,905,277	3,132,905,277
- diluted	3,132,905,277	3,132,905,277

Note on related party transactions

38) Note on related party transactions

"Related parties" are those referred to in the International Accounting Standard on Related Party Disclosures (IAS 24 Revised), details of which can be found in the Consolidated Annual Financial Report for the year ended December 31, 2022, except for the changes indicated below.

Relationships with parent companies and their subsidiaries

At the date of approval of this Half-year Financial Report at June 30, 2023, the Municipality of Milan and the Municipality of Brescia each have a 25% shareholding of the share capital plus one share (overall equal to 50% plus two shares), which allows the two municipalities to maintain control over the Company.

Commercial relations exist between the companies of the A2A Group and the Municipalities of Milan and Brescia and the companies directly and indirectly controlled by the Municipalities themselves.

In particular, on April 12, 2017, Amsa S.p.A., a subsidiary of A2A S.p.A., in execution of the original assignment ordered in 2001, signed a contract with the Municipality of Milan for the management of services aimed at environmental protection for the period from January 1, 2017 to February 8, 2021; following the publication of the first tender cancelled by the Municipality in consideration of the appeals notified and the second tender still in progress, the assignment was extended until April 30, 2023.

The tender now in progress was published on December 30, 2021; it is a European open procedure tender for the contracting of the municipal waste management service with reduced environmental impact from a lifecycle perspective, pursuant to the action plan for the environmental sustainability of consumption in the public administration sector (PAN GPP) and the Decree of the Ministry of the Environment and Protection of Land and Sea of February 13, 2014.

The bid submission date, originally set for July 11, 2022, has been set for October 31, 2022. Two operators notified an appeal against the call for tenders to the Regional Administrative Court of Milan, which in the hearing of November 9, 2022 ordered a verification, appointing ARERA. The hearing on the merits to take a decision after the filing of the verification and service of additional grounds by the appellant is set for September 20, 2023.

In the context of the same appeals in the second instance, the Council of State ordered the Municipality not to make any award until the conclusion of the judgments on the merits.

Amsa submitted a bid. The Municipality of Milan has arranged for technical extensions to ensure the continuity of the service, today defined contractually until December 31, 2023.

Relationships with subsidiaries and associates

The parent company A2A S.p.A. operates as centralized treasury for most of the subsidiaries and provides the subsidiaries and associates with administrative, fiscal, legal, management and technical services in order to optimize the resources available in the company and to use the existing expertise in terms of economic convenience.

For the financial year 2023, A2A S.p.A. and its subsidiaries have adopted the VAT procedure of the Group and, for IRES purposes, A2A S.p.A. files for tax on a consolidated basis, together with its main subsidiaries, in accordance with arts. 117-129 of Presidential Decree no. 917/86.

Finally, it should be noted that, in compliance with the provisions of the "Regulation containing provisions on related party transactions" adopted by Consob with Resolution no. 17221 of March 12, 2010 and subsequent amendments (Resolution no. 17389 of June 23, 2010 and Consob Resolution no. 21624 of December 10, 2020, in implementation of the so-called "Shareholders' Rights II" Directive), the Group approved the Related Parties Procedure that came into force as of the 2010 financial year and was subsequently amended by a resolution of the Board of Directors on June 25, 2021, subject to the favorable opinion of the Related Parties Committee established by board resolution of May 13, 2021. The aforementioned Procedure can be found on www.a2a.eu.

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Below are the tables with detail of the related party transactions, in accordance with the Consob Resolution no. 17221 of March 12, 2010:

Balance sheet millions of euro	Total 06 30 2023	Companies associated and subsidiaries of associates	Related companies	Municipality of Milan	Companies controlled directly and indirectly Municipality of Milan	Municipality of Brescia	Companies controlled directly and indirectly Municipality of Brescia	Related parties individuals	Total related parties	% effect on the balance sheet item
Total assets of which:	18,068	10	35	63	14	15	-	-	137	0.8%
Non-current assets	10,310	6	27	-	-	4	-	-	37	0.4%
Shareholdings	32	6	26	-	-	-	-		32	100.0%
Other non-current financial assets	64	-	1	-	-	4	-	-	5	7.8%
Current assets	7,715	4	8	63	14	11	-	-	100	1.3%
Trade receivables	2,696	4	1	63	14	10	-	-	92	3.4%
Other current assets	2,237	-	1	-	-	-	-	-	1	0.0%
Current financial assets	32	-	6	-	-	1	-	-	7	21.9%
Total liabilities of which:	13,625	25	4	1	1	6	-	-	37	0.3%
Current liabilities	6,734	25	4	1	1	6	-	-	37	0.5%
Trade payables	2,981	20	3	1	1	6	-	-	31	1.0%
Other current liabilities	2,218	5	1	-	-	-	-	-	6	0.3%

Income statement millions of euro	Total 06 30 2023	Companies associated and subsidiaries of associates	Related companies	Municipality of Milan	Companies controlled directly and indirectly Municipality of Milan	Municipality of Brescia	Companies controlled directly and indirectly Municipality of Brescia	Related parties individuals	Total related parties	% effect on the balance sheet item
Revenues	7,989	24	16	163	49	35	2	-	289	3.6%
Revenues from the sale of goods and services	7,904	24	16	163	49	35	2		289	3.7%
Operating expenses	6,708	19	2	4	4	5	-	-	34	0.5%
Expenses for raw materials and services	6,545	1	2	-	4	-	-	-	7	0.1%
Other operating expenses	163	18	-	4	-	5	-	-	27	16.6%
Labour costs	401	-	-	-	-	-	-	1	1	0.2%
Financial balance	(68)	-	1	-	-	3	-	-	4	(5.9%)
Financial income	37	-	-	-	-	3	-	-	3	8.1%
Financial expenses	106	-	-	-	-	-	-	-	-	0.0%
Affiliates	1	-	1	-	-	-	-	-	1	100.0%

The complete financial statements are included in the section "Financial statements of the Half-yearly condensed consolidated financial statements" of this report pursuant to Consob Resolution no. 17221 of March 12, 2010.

It should be noted that during the half-year, A2A S.p.A. made grants totalling 1.5 million euro to foundations that have been included on a voluntary basis among related parties. Specifically, these involve: Fondazione AEM, Fondazione ASM, Fondazione LGH E.T.S., Comitato Banco dell'Energia Onlus, Fondazione Teatro alla Scala, Fondazione Brescia Musei and Associazione Centro Teatrale Bresciano.

With regard to the compensation paid to the corporate governance bodies, reference shall be made to the document "Remuneration Report – 2023" available on the website www.a2a.eu.

Significant non-recurring events and transactions, pursuant to Consob Communication No. DEM/6064293 of July 28, 2006

39) Significant non-recurring events and transactions, pursuant to Consob Communication No. DEM/6064293 of July 28, 2006

It should be noted that in the period under review, the possibility was exercised, pursuant to Article 15, paragraphs 10 et seq. of Legislative Decree No. 185/2008, to revalue, or recognise, the higher tax values of controlling interests arising from the Purchase Price Allocation (PPA) process and recognized in the consolidated financial statements as goodwill and other intangible assets. Against the payment of the substitute tax of 33 million euro, the derogatory revaluation resulted in the recognition of net deferred tax assets of 56 million euro, relating to off-balance-sheet deductions of the higher revalued values. These deferred tax assets will be released pro rata in connection with off-balance-sheet deductions starting in 2025.

During the first half of the year, the Group finalized the agreement with Acque Bresciane S.r.l., effective as of May 31, 2023, for the sale of the Integrated Water Service (IWS) Unit of the subsidiary Azienda Servizi Valtrompia S.p.A.. As at June 30, the Group had collected a first tranche of the sale value, amounting to 38 million euro, and recorded 41 million euro in other receivables pending the definition by the ATO (Ufficio d'Ambito - Ambit Office) of the final sale price at the closing of the transaction. As at June 30, 2023, the Group recognized 3 million euro under "Net result from discontinued operations" regarding the reclassification of revenues and costs related to the unit sold

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Guarantees and commitments with third parties



Guarantees and commitments with third parties

millions of euro	06 30 2023	12 31 2022
Guarantees received	975	950
Guarantees provided	2,553	2,505

Guarantees received

Guarantees received amounted to 975 million euro (950 million euro at December 31, 2022) and included 460 million euro for sureties and security deposits issued by subcontractors to guarantee the proper execution of the work assigned and 452 million euro for sureties and security deposits received from customers to guarantee the regularity of payments and guarantees received by the Acinque Group for 57 million euro and guarantees received by the AEB Group for 6 million euro.

Guarantees provided and commitments with third parties

Guarantees provided amounted to 2,553 million euro (2,505 million euro at December 31, 2022), of which for obligations undertaken in the loan agreements of 44 million euro. These guarantees have been issued by banks for 1,614 million euro, insurance companies for 40 million euro and the parent company A2A S.p.A., as parent company guarantee, for 761 million euro and guarantees provided by the Acinque Group for 85 million euro and guarantees provided by the AEB Group for 53 million euro.

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1) Transactions as per IFRS 3 revised

In 2023, the A2A Group completed the following acquisitions of investments, which fall within the provisions of IFRS 3:

- acquisition by AEB S.p.A. of 90% of VGE 05 S.r.l. resulting in the full consolidation of the company;
- the acquisition by A2A Calore & Servizi S.p.A. of 100% of Termica Cologno S.r.I. resulting in the full consolidation of the company.

The transactions summarized above are classified as business combinations in accordance with international standard IFRS 3 "Business Combinations"; the Group fully consolidated the companies through the application of the acquisition method prescribed by IFRS 3, by virtue of the control obtained on the entities acquired.

IFRS 3 requires all business combinations to be accounted for using the acquisition method within twelve months from acquisition. The acquirer must therefore recognize all the identifiable assets, liabilities and contingent liabilities relating to the acquisition at their fair values at the acquisition date and highlight the eventual recognition of goodwill.

The fee transferred in a business combination is determined at the date of acquisition of control and is equal to the fair value of assets transferred, liabilities incurred, and any equity instruments issued by the acquirer. Costs directly attributable to the transaction are recognized in the income statement when incurred. At the date of acquisition of control, the net equity of the investee companies is determined by attributing to individual assets and liabilities their fair value, except in cases where the IFRS provisions provide a different valuation criterion. Any residual difference with respect to the purchase cost, if positive, is recognized under the item "Goodwill" (hereinafter also goodwill); if negative, it is recognized in the income statement.

Business Combinations Rinnovabili Group

During the first half of 2023, AEB S.p.A. finalized the acquisition of a 90% stake in VGE 05 S.r.l.. The acquisition transaction was concluded for a value of 14 million euro, generating goodwill in the same amount, which was confirmed at the end of the Purchase Price Allocation process as required by IFRS 3.

Business combination Termica Cologno S.r.l.

On June 19, 2023, A2A Calore & Servizi S.r.I., a company 100% owned by A2A S.p.A., acquired 100% of the investment in Termica Cologno S.r.I. company that owns a cogeneration thermoelectric plant. The acquisition transaction was concluded for a value of 9 million euro, generating goodwill of 3 million euro, which will be allocated with the Purchase Price Allocation process within the time frame required by IFRS 3. The price was fully settled at the closing of the transaction.

2) Financial risk management

The A2A Group operates in the electricity, natural gas and district heating industry and is exposed to various financial risks in performing its activity:

- a) commodity risk;
- b) interest rate risk;
- c) exchange rate risk not related to commodities;
- d) liquidity risk;
- e) credit risk;
- f) equity risk;
- g) default and covenant non-compliance risk.

The commodity price risk, related to the volatility of energy commodity prices (gas, electricity, fuel oil, coal, etc.) and prices of environmental securities (EUA/ETS emission rights, green certificates, white certificates, etc.), consists of the possible negative effects that a change in the market price of one or more commodities may have on the cash flows and income prospects of the company, including the exchange rate risk related to the same commodities.

Interest rate risk is the risk of additional financial costs as the result of an unfavourable change in interest rates.

Currency risk not related to commodities is the risk of higher costs or lower revenues because of an unfavourable change in exchange rates between currencies.

Liquidity risk is the risk that financial resources will not be sufficient to meet established financial and business obligations in a timely manner.

Credit risk is the exposure to potential losses deriving from non-performance of commitments by commercial, trading and financial counterparties.

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Equity risk is the possibility of incurring losses due to an unfavourable change in the price of shares.

Default and covenant non-compliance risk represent the possibility that loan agreements or bond regulations to which one or more Group companies are party contain provisions allowing the counterparties, banks or bondholders, to ask the debtor for immediate reimbursement of the amounts lent if certain events take place. Details on the risks to which the A2A Group is exposed are provided below.

a. Commodity risk

a.1) Commodity price risk and exchange rate risk involved in commodity activities

The Group is exposed to price risk, including the related currency risk, on all of the energy commodities that it handles, namely electricity, natural gas, heat, coal, fuel oil and environmental certificates; the results of production, purchases and sales are similarly affected by fluctuations in the prices of such energy commodities. These fluctuations act both directly and indirectly, through formulas and indexing in the pricing structure.

To stabilize cash flows and to assure the Group's economic and financial stability, A2A S.p.A. has an Energy Risk Policy that sets out clear guidelines to manage and control the above risks, based on guidance by the Committee of Chief Risk Officers Organizational Independence and Governance Working Group (CCRO) and the Group on Risk Management of Eurelectric. Reference was also made to the Accords of the Basel Committee on bank supervision and the requirements laid down in international accounting standards on how to recognize the volatility of commodity price and financial derivatives in the income statement and balance sheet.

In the A2A Group, assessment of this kind of risk is centralized at the holding company, which has established a Group Risk Management Organizational Unit as part of the Planning, Finance and Control Organizational Unit. This unit has the task to manage and monitor market and commodity risks, to create and evaluate structured products, to propose financial energy risk hedging strategies, and to support senior management in defining the Group's energy risk management policies.

Each year, the Board of Directors of A2A S.p.A. sets the Group's commodity risk limits approving the PaR and VaR proposed (prepared in the Risk Committee) in conjunction with approval of the Budget/Business Plan; Group Risk Management supervises the situation to ensure compliance with these limits and proposes to senior management the hedging strategies designed to bring risk within the set limits, if exceeded.

The activities that are subject to risk management include all of the positions on the physical market for energy products, both purchasing/production and sales, and all of the positions in the energy derivatives market taken by Group companies.

For the purpose of monitoring risks, industrial and trading portfolios have been separated and are managed in different ways. The industrial portfolio consists of the physical and financial contracts directly relating to the Group's industrial operations, namely where the objective is to enhance production capacity also through the wholesaling and retailing of gas, electricity and heat.

The trading portfolio comprises all contracts, both physical and financial, entered into to supplement the profits made from the industrial activities, i.e. all contracts that are ancillary though not strictly necessary to the industrial activity.

In order to identify trading activity, the A2A Group follows the Capital Adequacy Directive and the definition of assets held for trading provided by International Accounting Standard (IFRS) 9: namely assets held for the purpose of short-term profit taking on market prices or margins, without being for hedging purposes, and designed to create a high-turnover portfolio.

Given that they exist for different purposes, the two portfolios have been segregated and are monitored separately with specific tools and limits. More specifically, the trading portfolio is subject to particular risk control and management procedures as laid down in Deal Life Cycle documents.

Senior management is systematically updated on changes in the Group's commodity risk by the Group Risk Management Unit, which controls the Group's net exposure. This is calculated centrally on the entire asset and contract portfolio and monitors the overall level of economic risk assumed by the industrial and trading portfolios (Profit at Risk - PaR, Value at Risk - VaR, Stop Loss).

a.2) Commodity derivatives, analysis of transactions

Derivatives of the industrial portfolio considered hedges

The hedging of price risk by means of derivatives focuses on protecting against the volatility of energy prices on the power exchange (IPEX-EEX), stabilizing electricity price margins on the wholesale market with particular attention being paid to fixed price energy sales and purchases and stabilizing price differences deriving from various indexing mechanisms for the pricing of gas and electricity. To that end, hedging contracts were executed during the year on electricity purchase and sale agreements and on contracts to hedge the fee for the use of

electricity transport capacity between the areas of the IPEX market (CCC contracts); hedging contracts were also concluded for the purchase and sale of gas so as to protect sales margins and at the same time keep the risk profile to within the limits set by the Group's Energy Risk Policy.

As part of the optimization of the portfolio of greenhouse gas emission allowances (see Directive 2003/87/EC), the A2A Group has stipulated Future contracts on the ICE ECX (European Climate Exchange) price. These are considered hedging transactions from an accounting point of view in the event of demonstrable surplus/deficit quotas.

The fair value at June 30, 2023 was 8.1 million euro (32.4 million euro at December 31, 2022).

Derivatives of the industrial portfolio not considered hedges

Again with a view to optimising the Industrial Portfolio, Future contracts have been entered into on the ICE ECX (European Climate Exchange) stock exchange price. These do not qualify as hedging transactions from an accounting point of view as they fail to meet the requirement set out in the accounting standards.

The fair value at June 30, 2023 was 0.3 million euro (0.2 million euro at December 31, 2022).

Derivatives of the Trading Portfolio

As part of its trading activity, the A2A Group has taken out Future contracts on major European energy stock exchanges (EEX, ICE) and Forward and Option contracts on the price of electricity with delivery in Italy and neighboring countries such as France, Germany and Switzerland. The Group has also stipulated Future contracts on the ICE ECX (European Climate Exchange) stock exchange price. Also as part of trading activities, both Future and Forward contracts were also stipulated for the market price of gas (ICE-Endex CEGH, PEGAS).

The fair value at June 30, 2023 was 156.1 million euro (268.1 million euro at December 31, 2022).

a.3) Energy Derivatives, risk assessment of Industrial Portfolio derivatives

PaR¹ or Profit at Risk, is used to assess the impact that fluctuations in the market price of the underlying have on the financial derivatives taken out by the A2A Group that are attributable to the industrial portfolio. It is the change in the value of a financial instruments portfolio within set probability assumptions as the result of a shift in the market indices. The PaR is calculated using the Montecarlo Method (at least 10,000 trials) and a 99% confidence level. It simulates scenarios for each relevant price driver depending on the volatility and correlations associated with each one, using as the central level the forward market curves at the balance sheet date, if available. By means of this method, after having obtained a distribution of probability associated with changes in the result of outstanding financial contracts, it is possible to extrapolate the maximum change expected over a time horizon given by the accounting period at a set level of probability. Based on this method, over the time horizon of the accounting period and in the event of extreme market movements and at a 99% confidence level, the expected maximum negative change in financial derivatives outstanding at June 30, 2023 was 184.115 million euro (192.226 million euro at December 31, 2022).

The following are the results of the simulation with the related maximum variances:

millions of euro		06 30 2023		12 31 2022
Profit at Risk (PaR)	Worst case	Best case	Worst case	Best case
Confidence level 99%	(184.115)	272.761	(192.226)	299.227

The A2A Group therefore expects, with a 99% probability, not to have changes compared to the fair value at June 30, 2023 exceeding 184.115 million euro of its entire portfolio of financial instruments due to commodity price fluctuations. If there are any negative changes in the fair value of hedge derivatives, these would be compensated by changes in the underlying physical.

¹ Profit at Risk: statistical measurement of the maximum potential negative deviation of the margin of an asset portfolio in case of unfavourable market changes over a given time horizon and with a defined confidence interval.

a.4) Energy Derivatives, risk assessment of Trading Portfolio derivatives

VaR² (Value at Risk) is used to assess the impact that fluctuations in the market price of the underlying have on the financial derivatives taken out by the A2A Group that are attributable to the trading portfolio. It is the negative change in the value of a financial instruments portfolio within set probability assumptions as the result of an unfavourable shift in the market indices. VaR is calculated using the RiskMetrics method with a holding period of 3 days and a confidence level of 99%. Alternative methods are used for contracts where it is not possible to perform a daily estimate of VaR such as stress test analysis

Based on this method, in the case of extreme market movements, with a confidence level of 99% and a holding period of 3 days, the maximum estimated loss on the derivatives in question was 1.161 million euro at June 30, 2023 (2.948 million at December 31, 2022). In order to ensure closer monitoring of activities, VaR and Stop Loss (the sum of VaR, P&L Realized and P&L Unrealized) limits are also set.

The following are the results of the assessments:

millions of euro		06 30 2023		12 31 2022
Value at Risk (VaR)	VaR	Stop Loss	VaR	Stop Loss
Confidence level 99%, holding period 3 days	(1.161)	(1.161)	(2.948)	(2.948)

b. Interest rate risk

The Group is exposed to the risk that changes in the interest rate curve result in changes in economic results, cash flows and the value of assets and liabilities measured at fair value. The volatility of financial expenses associated to the performance of interest rates is monitored and mitigated through a policy of interest rate risk management aimed at identifying a balanced mix of fixed-rate and variable rate loans and the use of derivatives that limit the effects of fluctuations in interest rates.

The book value and type of gross debt at June 30, 2023 are shown in the table below:

millions of euro		C	06 30 2023			12 31 2022
	Before hedging	After hedging	% after hedging	Before hedging	After hedging	% after hedging
Fixed rate	5,729	5,869	86%	5,168	5,332	77%
Variable rate	1,107	967	14%	1,721	1,557	23%
Total	6,836	6,836	100%	6,889	6,889	100%

It does not include fair value derivatives included in the Net Financial Position.

millions of euro			06 30 2023		12 31 2022
Hedging instrument	Hedged asset	Fair value	Notional	Fair value	Notional
Collar	Floating rate loan A2A	-	9.5	(O.1)	19.0
IRS	Floating rate loan subsidiaries	4.1	40.0	4.4	43.9
Total		4.1	49.5	4.3	62.9

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² Value at Risk: statistical measurement of the maximum potential drop in the fair value of an asset portfolio in the event of unfavorable movements in the market with a given time horizon and confidence level.

With reference to the accounting treatment, hedging derivatives for interest rate risk can be classified as follows:

milli	anc a	feuro

Accounting treatment	Type of derivatives		Financial assets				Financia	l liabilities	
		Notio	nal at:	Fair va	llue at:	Notio	nal at:	Fair val	ue at:
		06 30 2023	12 31 2022	06 30 2023	12 31 2022	06 30 2023	12 31 2022	06 30 2023	12 31 2022
Cash flow hedge	Collar	-	-	-	-	9.5	19.0	-	(0.1)
Cash flow hedge	IRS	-	-	-	-	40.0	43.9	4.1	4.4
Total		-	-	-	-	49.5	62.9	4.1	4.3

Derivatives on interest rates at June 30, 2023 in cash flow hedge refer to the following loans:

Loan	Derivative	Accounting
A2A S.p.A. variable rate bank loan, maturity November 2023, residual debt at June 30, 2023 of 9.5 million euro.	100% of the amount of the loan until maturity thereof. At June 30, 2023, the fair value was 0 million euro.	The loan is measured at amortized cost. The collar is a cash flow hedge, with 100% recognized in a specific equity reserve.
A5 variable rate bank loan, maturity December 2025, residual debt at June 30, 2023 of 5.6 million euro.	IRS on 100% of the amount of the loan until maturity thereof. At June 30, 2023, the fair value was positive for 0.3 million euro.	The loan is measured at amortized cost. The IRS is a cash flow hedge, with 100% recognized in a specific equity reserve.
VOLTA GREEN ENERGY variable rate bank loan, maturity December 2026, residual debt at June 30, 2023 of 0.9 million euro.	IRS on 100% of the amount of the loan until maturity thereof. At June 30, 2023, the fair value was positive for 0.1 million euro.	The loan is measured at amortized cost. The IRS is a cash flow hedge, with 100% recognized in a specific equity reserve.
LA CASTILLEJA ENERGIA variable rate bank loan, maturity December 2034, residual debt at June 30, 2023 of 28.0 million euro.	IRS on 75% of the amount of the loan until December 2030. At June 30, 2023, the fair value was positive for 3.1 million euro.	The loan is measured at amortized cost. The IRS is a cash flow hedge, with 100% recognized in a specific equity reserve.
SISTEMES ENERGETICS CONESA I variable rate bank loan, maturity June 2030, residual debt at June 30, 2023 of 16.6 million euro.	IRS on 75% of the amount of the loan until maturity thereof. At June 30, 2023, the fair value was positive for 0.6 million euro.	The loan is measured at amortized cost. The IRS is a cash flow hedge, with 100% recognized in a specific equity reserve.

The Group performs sensitivity analysis by estimating the effects on the value of financial statement items relating to the portfolio of financial instruments deriving from changes in the level of interest rates.

In particular, the sensitivity analysis measures the potential impact on the Income Statement and shareholders' equity of different market scenarios that would determine the change in fair value of derivative financial instruments and the change in financial expenses related to the portion of gross debt not hedged.

These market scenarios are obtained by shifting the reference interest rate curve at the reporting date up and down in parallel.

Keeping all other variables constant, the pre-tax result would be influenced by changes in the level of interest rates as follows:

millions of euro	Effect on the Statement (b		Effect on Equity (before tax)	
	-50 bps	+50 bps	-50 bps	+50 bps
Change in financial expenses on gross variable-rate debt after hedging	1	(1)	-	-
Change in fair value of derivative financial instruments classified as non-hedge	-	-	-	-
Change in fair value of derivative financial instruments classified as hedge (excluding BCVA as per IFRS 13):				
Cash flow hedge	-	-	(0.6)	0.6
Fair value hedge	-	-	-	-

c. Exchange rate risk not related to commodities

The Group is exposed to the risk that changes in exchange rates with respect to the currency of account may lead to changes in its results of operations and cash flows. In relation to exchange rate risk other than that included in the price of commodities, the hedging instrument at June 30, 2023 is as follows:

millions of euro			06 30 2023		12 31 2022
Hedging instrument	Hedged asset	Fair value	Notional	Fair value	Notional
Cross Currency IRS	Fixed rate bond in foreign currency	(2.5)	98.0	7.2	98.0
Total		(2.5)	98.0	7.2	98.0

With regard to the accounting treatment, it is specified that the hedging derivative above is in cash flow hedge with full recognition in the equity reserve.

In particular, the underlying of the Cross Currency IRS derivative refers to the bond at fixed rate of 14 billion yen with maturity 2036 bullet issued in 2006.

A cross currency swap contract was stipulated for the entire duration of this loan, which converts the principal and interest payments from yen into euro.

At June 30, 2023, the fair value of the hedge was negative for 2.5 million euro.

It should be noted that a 10% positive shift in the EURJPY forward curve, with a consequent depreciation of the JPY, would result in a worsening of the fair value and, consequently, of the impact on shareholders' equity of 11.2 million euro. Conversely, a 10% negative shift in the EURJPY forward curve, resulting in an appreciation of the JPY, would result in an improvement in fair value of 13.7 million euro.

This sensitivity analysis was performed with the aim of calculating the effect of changes in the forward curve of the euro/yen exchange rate on the fair value ignoring any impact on the adjustment due to the bCVA.

d. Liquidity risk

Liquidity risk is the risk that the Group is unable to meet its obligations in a timely manner or that it is able to do so under unfavourable economic conditions due to situations of tension or systemic crisis or to the changed perception of its riskiness by the market. This risk includes: i) the risk related to the company's inability to raise new funds (Funding Risk) and, ii) the risk related to the company's inability to liquidate assets on the market in a timely manner and at market conditions (Liquidity Market Risk).

One of the main factors influencing the market's perceived riskiness is the creditworthiness of A2A assigned by rating agencies. This judgement plays a very important role because it influences the ability of A2A to access sources of financing as well as the related costs. A deterioration in creditworthiness could lead to a limitation of access to the capital market and/or financing costs with a negative impact on the economic, financial and equity situation. A2A has a medium- and long-term rating of BBB (negative outlook) with S&P and Baa2 (negative outlook) with Moody's.

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The profile of the Group's gross debt maturities is as follows:

Bala	Accounting Balance	Portions maturing	Portions maturing		Porti	ions maturing	by	
		12 beyond 12	06 30 2025	06 30 2026	06 30 2027	06 30 2028	After	
Bonds	5,458	662	4,796	299	596	-	793	3,108
Financial payables for rights of use*	167	34	133	27	21	17	15	53
Loans from banks and other lenders	1,211	624	587	98	87	71	72	259
Total	6.836	1.320	5.516	424	704	88	880	3.420

It does not include fair value derivatives included in the Net Financial Position

The risk management policy, both in the short and medium/long term, is realized through (i) a debt management strategy diversified by funding sources with a balanced maturity profile, (ii) access to various sources of financing in terms of market and counterparty and (iii) maintenance of financial resources, consisting of both liquidity and committed credit lines, sufficient to meet expected and unexpected commitments over a given time horizon.

At June 30, 2023, the Group had a total of 3,999 million euro, as follows:

- (i) committed revolving credit lines of 1,580 million euro, of which: a) 400 million euro maturing in 2023, b) 20 million euro maturing in 2024, c) 560 million euro maturing in 2025 and d) 600 million euro maturing in 2026, unused;
- (ii) unused long-term EIB loans for a total of 2.5 million euro maturing in 2024;
- (iii) cash and cash equivalents totaling 2,416 million euro, including 2,277 million euro at the Parent Company level.

In addition, A2A maintains a Bond Issuance Program (Euro Medium Term Note Program), the size of which was increased to 7 billion euro with the annual renewal in July 2023: following the renewal and increase in size, 1,650 million euro will be available.

Over the years, A2A has embarked on a path of issues with ESG characteristics, in the form of Green Bonds and Sustainability-Linked Bonds. For A2A, the failure to meet certain sustainability KPI (ESG) targets can lead to an increase in the financing costs of the debt instruments to which these KPIs are linked. In particular, A2A issued two Sustainability-Linked Bonds, the first in 2021 with a 10-year maturity and the second in 2022 with a 6-year maturity: for both bonds, the failure to reach the target related to the chosen KPI will result in a coupon increase of 25 basis points.

The following table represents the repayment schedule of financial liabilities (excluding payables for rights of use and including trade payables). The amounts shown in the table are future cash flows, nominal and non-discounted, determined with reference to the remaining contractual maturities, for the principal and interest portions. The undiscounted nominal flows of derivative contracts on interest rates are also included. Finally, any revocable financial lines used and current accounts payable are due within the next financial vear.

^(*) compresi leasing finanziari.

06 30 2023 millions of euro	1-3 MONTHS	4-12 MONTHS	BEYOND 12 MONTHS
Bonds	39	681	5,550
Loans from banks and other lenders	168	282	773
Total financial flows	207	963	6,323
Payables to suppliers	534	74	8
Total trade flows	534	74	8
12 31 2022 millions of euro	1-3 MONTHS	4-12 MONTHS	BEYOND 12 MONTHS

12 31 2022 millions of euro	1-3 MONTHS	4-12 MONTHS	BEYOND 12 MONTHS
Bonds	19	379	5,165
Loans from banks and other lenders	176	520	1,278
Total financial flows	195	899	6,443
Payables to suppliers	1,082	26	9
Total trade flows	1,082	26	9

e. Credit risk

Credit risk relates to the possibility that a counterparty, commercial or trading, may be in default, or fail to respect its commitment in the manner and timing provided by contract. This type of risk is managed by the Group through specific procedures (Credit Policy, Energy Risk Management procedure) and appropriate mitigation actions.

This risk is overseen by both the Credit Management function allocated centrally (and the corresponding functions of the operating companies) and the Group Risk Management Organizational Unit responsible for supporting the Group companies with reference to both commercial and trading activities. Risk mitigation is through the prior assessment of the creditworthiness of the counterparty and the constant verification of compliance with exposure limit as well as through the request for adequate guarantees.

The credit terms granted to customers as a whole have a variety of deadlines, in accordance with applicable law and market practice. In cases of delayed payment, default interest is charged as explicitly prescribed by the underlying supply contracts or by current law (application of the default rate as per Legislative Decree 231/2002).

Trade receivables are stated in the balance sheet net of any write-downs; the amount shown is considered to be a correct reflection of the realizable value of the receivables portfolio. For the aging of trade receivables, reference is made to note "Trade receivables".

f. Equity risk

At June 30, 2023, the A2A Group was not exposed to equity risk.

In particular, it should be noted that the parent company A2A S.p.A. did not hold any treasury shares at June 30, 2023.

As prescribed by IAS/IFRS, treasury shares do not constitute an equity risk as their purchase cost is deducted from equity, and even if they are sold any gain or loss on the purchase cost does not have any effect on income statement.

g. Covenants non-compliance risk

Bonds, loans, leases and committed revolving bank lines present terms and conditions in line with market practice for each type of instrument. In particular, they envisage: :

- negative pledge clauses whereby the parent company undertakes not to pledge its assets and those of its
 material subsidiaries (as defined in the relevant documentation from time to time), subject to certain exceptions
 and a maximum permitted threshold, specifically identified;
- cross-default clauses, whereby, in the event of an event of default (exceeding specific materiality thresholds) on a specific financial indebtedness of the parent company and, in some cases, its material subsidiaries (as defined in the relevant documentation from time to time), a default also occurs on other loans or financial debt of the parent company that may become immediately due;
- pari passu clauses, whereby the parent company's bonds and financial obligations have the same level of seniority as its other present and future non-secured and non-subordinated bonds or financial obligations.

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The bonds issued by A2A S.p.A. include (i) senior unsecured bonds for a nominal amount of 5,350 million euro (book value at June 30, 2023 equal to 5,367 million euro) issued as part of the EMTN Programme, which provide to investors a Change of Control Put option in the event of a change of control of the parent company resulting in a consequent downgrade of the rating to sub-investment grade level in the following 180 days (if within these 180 days, the company's rating returns to investment grade, the option may not be exercised); (ii) a bond in yen placed privately with a maturity in 2036 for a nominal amount of 98 million euro (book value at June 30, 2023 equal to 91 million euro), which provides to the investor a Put option in the event that the rating of the parent company is lower at BBB- or equivalent level (sub-investment grade).

The loans stipulated by A2A S.p.A. with the European Investment Bank (EIB), for a total nominal debt of 566 million euro and a book value of 568 million euro, of which 232 million have a maturity of more than five years, include (i) a credit rating clause (if rated lower than BBB- or equivalent sub-investment grade) that provides for the obligation of A2A to inform EIB in the event of a rating downgrade and, in such circumstance, the right of EIB to request additional guarantees from A2A and, where such guarantees are not provided or are not satisfactory to EIB, the right to request early repayment of the loan, and ii) a change of control clause of the parent company, with the right for the bank to invoke, subject to notice to the company containing the reasons, early repayment of the loan.

A loan of the subsidiary Fragea, whose residual debt at June 30, 2023 was 2.0 million euro, is secured by collateral on the property and plant financed.

The committed revolving bank lines of A2A S.p.A., for a total of 1,560 million euro, provide a Change of Control clause which, in the event of a change of control of the parent company causing a Material Adverse Effect, allows the majority of banks lending the line to request the line to be extinguished and any amounts drawn down to be repaid.

Some Acinque, SISTEMES ENERGETICS CONESA and LA CASTILLEJA ENERGIA bank loans include financial covenants, as shown in the relevant table below.

At June 30, 2023 one of the three covenants in the Acinque EIB loan contract (Net Financial Debt/Ebitda) was not met.

With reference to the exceeding of the covenant as described above, it should be noted that Acinque requested the European Investment Bank to issue a waiver and that the Bank itself confirmed its issue subject to the issue by A2A S.p.A. of a first demand guarantee for the entire amount financed in favour of the Bank. A2A S.p.A. will issue the aforementioned guarantee in the coming weeks.

A2A Group - Financial covenants with valuation at June 30, 2023

Società	Lender	Level of reference	Level recognized	Date of recognition
ACINQUE	BEI	Available cash flow/net financial debt >= 14.0% Financial debt/equity <= 75.0% Net financial debt/Ebitda <= 3.0	20.4% 56.1% 3.40x	06/30/23 06/30/23 06/30/23
ACINQUE	Cassa Centrale Banca - Credito Cooperativo Italiano S.p.A.	Net Financial Position/Ebitda <= 4.0 Net Financial Position/Equity <= 1.0	n.a. n.a.	
SISTEMES ENERGETICS CONESA	Banco Santander / Banco De Sabadell	Debt Service Coverage Ratio >= 1.05x or no <1.10x for three consecutive Calculation Dates Senior Debt / Equity ratio <= 85%	1.79x 59%	06/30/23 06/30/23
LA CASTILLEJA ENERGIA	CaixaBank	Debt Service Coverage Ratio >= 1.05x or no <1.10x for four consecutive Calculation Dates Senior Debt / Equity ratio <= 85%	1.79x 78%	06/30/23 06/30/23

The financial covenants provided for in the Acinque Ioan contract with Cassa Centrale Banca - Credito Cooperativo Italiano S.p.A. have an annual valuation at December 31; thus, no value was recognized at June 30, 2023.

Analysis of forward transactions and derivatives

Tests were performed to determine whether these transactions qualify for hedge accounting in accordance with International Accounting Standard IFRS 9.

In particular:

1) transactions qualifying for hedge accounting under IFRS 9: can be analyzed between transactions to hedge cash flows (cash flow hedges) and transactions to hedge fair value of assets and liabilities (fair value hedges). For the cash flow hedges, the accrued result is included in gross operating margin when realized on commodity derivatives and in the financial balance for interest rate

and currency derivatives, whereas the future value is shown in equity. For fair value hedge transactions, the impacts in the Income Statement are recorded within the same line of the financial statements:

- 2) transactions not considered as hedges for the purposes of IFRS 9, can be:
 - a. margin hedges: for all hedging transactions of cash flows or the market value in line with internal risk policies, the accrued result and future value are included in gross operating margin for commodity derivatives and in the financial balance for interest rate and currency derivatives;
 - b. trading transactions: the accrued result and future value are recognized above gross operating margin for commodities transactions and in financial income and expense for interest rate and currency transactions.

The use of derivatives in the A2A Group is governed by a coordinated set of procedures (Energy Risk Policy, Deal Life Cycle) which are based on industry best practices and designed to limit the risk of the Group being exposed to commodity price fluctuations, based on a cash flow hedging strategy.

The derivatives are measured at fair value based on the forward market curve at the balance sheet date, if the asset underlying the derivative is traded on markets with a forward pricing structure. In the absence of a forward market curve, fair value is measured on the basis of internal estimates using models that refer to industry best practices.

The A2A Group uses "continuous-time" discounting to measure fair value. As a discount factor, it uses the interest rate for risk-free assets, identified in the Euro Overnight Index Average (EONIA) rate and represented in its forward structure by the Overnight Index Swap (OIS) curve. The fair value of the cash flow hedges has been classified on the basis of the underlying derivative contracts in accordance with IFRS 9.

In compliance with the provisions of IFRS 13, the fair value of an over-the-counter (OTC) financial instrument is determined taking into account the non-performance risk. To quantify the fair value adjustment attributable to this risk, A2A has, in line with best market practices, developed a proprietary model called the "bilateral Credit Value Adjustment" (bCVA), which takes into account changes in the creditworthiness of the counterpart as well as the changes in its own creditworthiness.

The bCVA has two addends, calculated by considering the possibility that both counterparties go bankrupt, known as the Credit Value Adjustment (CVA) and the Debit Value Adjustment (DVA):

- the CVA is a negative component and contemplates the probability that the counterparty will default and at the same time that A2A has a receivable due from the counterparty;
- the DVA is a positive component and contemplates the probability that A2A will default and at the same time that the counterparty has a receivable due from A2A.

The bCVA is therefore calculated with reference to the exposure, measured on the basis of the market value of the derivative at the time of the default, the Probability of Default (PD) and the Loss Given Default (LGD). This latter item, which represents the non- recoverable portion of the receivable in the case of default, is measured on the basis of the IRB Foundation Methodology as stated in the Basel 2 accords, whereas the PD is measured on the basis of the rating of the counterparties (internal rating based where not available) and the historic probability of default associated with this and published annually by Standard & Poor's.

Applying the above method did not result in significant changes in fair value measurements.

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Instruments outstanding at June 30, 2023

A) On interest and exchange rates

The following analyses show the notional amounts of derivative contracts stipulated and not expired at the reporting date, by maturity:

millions of euro		Notional value (a)					Balance sheet	Progressive effect to
	Due with	nin 1 year	Due in 11	to 5 years	Due ove	er 5 years	value (b)	the Income statement at
	to be received	to be paid	to be received	to be paid	to be received	to be paid		06 30 2023 (c)
Interest rate risk management								
Cash flow hedges as per ifrs 9		15.4		18.9		15.2	4.1	-
Not considered hedges as per ifrs 9								
Total derivatives on interest rates	-	15.4	-	18.9	-	15.2	4.1	-
Exchange rate risk management								
Considered hedges as per ifrs 9								
- on commercial transactions								
- on non-commercial transactions						98.0	(2.5)	
Not considered hedges as per ifrs 9								
- on commercial transactions								
- on non-commercial transactions								
Total derivatives on exchange rates	-	-	-	-	-	98.0	(2.5)	-

 ⁽a) Represents the sum of the notional value of the elementary contracts that derive from any dismantling of complex contracts.
 (b) Represents the net receivable (+) or payable (-) recognized in the balance sheet following the measurement of derivatives at fair value.
 (c) Represents the adjustment of derivatives to fair value recognized progressively over time in the Income Statement from stipulation of the contract until the current date.

B) On commodities

The following is an analysis of the commodity derivative contracts outstanding at the balance sheet date set up for the purpose of managing the risk of the fluctuations in the market prices of commodities.

		Volume by Maturity			Notional Value		Fair value
		Due within 1 year	Due within 2 years	Due within 5 years		Balance sheet value (*)	Progressive effect to the Income statemen (**
Energy product price risk management	Unit of measurement		Quantity		Millions of euro	Millions of euro	Millions of euro
A. Cash flow hedges as per IFRS 9, including:						8.1	
- Electricity	TWh	0.2	0.3		86.6	15.8	
- Oil	Bbl						
- Coal	Tonnes						
- Natural Gas	TWh	0.7	0.1		52.6	(10.0)	
- Natural Gas	Millions of cubic metres						
- Exchange rate	Millions of dollars						
- Emission rights	Tonnes	812,658	125,000		82.6	2.3	
B. considered fair value hedges as per IFRS 9						-	
C. not considered hedges as per IFRS 9 of which						156.4	(112.0
C.1 hedge margin						0.3	0
- Electricity	TWh						
- Oil	Bbl						
- Natural Gas	Degrees day						
- Natural Gas	TWh						
- CO2 emission rights	Tonnes	291,000	119,000		36.8	0.3	O
- Exchange rate	Millions of dollars						
C.2 trading transactions						156.1	(112.
- Electricity	TWh	20.8	12.2	2.0	5,437.0	74.3	(16.2
- Natural Gas	TWh	117:1	30.0	3.0	8,885.5	81.9	(95.5
- CO2 emission rights	Tonnes	2,730,000	1,152,000	266,000	368.5	(0.1)	(0.4
- Environmental Certificates	MWh						
- Environmental Certificates	Тер						
Total						164.5	(112.0

^(*) Represents the net receivable (+) or payable (-) recognized in the balance sheet following the measurement of derivatives at fair value.

(**) Represents the adjustment of derivatives to fair value recognized over time in the Income Statement from stipulation of the contract to the present date.

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Financial and operating results for derivative transactions at June 30, 2023

Effects on the balance sheet

The following table shows the balance sheet figures at June 30, 2023, for derivative transactions.

millions of euro	Note	Total
Assets		
Non-current assets		4
Other non-current assets - Derivatives	5	4
Current assets		1,751
Other current assets - Derivatives	8	1,751
Total assets		1,755
Liabilities		
Non-current liabilities		2
Other non-current liabilities - Derivatives	20	2
Current liabilities		1,586
Trade payables and other current liabilities - Derivatives	21	1,586
Total liabilities		1,588

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Effect on the income statement

The following table sets out the income statement figures at June 30, 2023 arising from the management of derivatives.

millions of euro	Note	Realised during the period	Change in fair value during the period	Amounts recognized in the income statement
Revenues	25			
Revenues from the sale of goods				
Energy product price risk management and exchange rate risk management on commodities				
- considered hedges as per IFRS 9		31	-	31
- not considered hedges as per IFRS 9		370	130	500
Total revenues from the sale of goods		401	130	531
Operating expenses	26			
Expenses for raw materials and services				
Energy product price risk management and exchange rate risk management on commodities				
- considered hedges as per IFRS 9		(36)	-	(36)
- not considered hedges as per IFRS 9		(379)	(242)	(621)
Total expenses for raw materials and services		(415)	(242)	(657)
Total recognized in Gross operating income (*)		(14)	(112)	(126)
Financial balance	32			
Financial income				
Interest rate risk management and equity risk management				
Income on derivatives				
- considered hedges as per IFRS 9		-	-	-
- not considered hedges as per IFRS 9		-	-	-
Total		-	-	-
Total financial income		-	-	-
Financial expenses				
Interest rate risk management and equity risk management				
Expenses on derivatives				
- considered hedges as per IFRS 9		-	-	-
- not considered hedges as per IFRS 9		-	-	-
Total		-	-	-
Total Financial expenses		-	-	-
Total recognized in financial balance		-	-	-

^(*) The figures do not include the effect of the net presentation of the negotiation margin of trading activities

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Classes of financial instruments

To complete the analyses required by IFRS 7 and IFRS 13, the following table sets out the various types of financial instrument that are to be found in the various balance sheet items, with an indication of the accounting policies used and, in the case of financial instruments measured at fair value, an indication of where changes are recognized (income statement or equity).

The last column of the table shows the fair value of the instrument at June 30, 2023, where applicable.

millions of euro	Note	Financial instruments measured at fair value with changes recognized in: Financial instruments					Fair value
		Income statement	Faulty		measured at amortized cost	consolidated balance sheet	
		(1)	(2)	(3)	(4)		
Assets							
Other non-current financial assets							
Financial assets measured at fair value of which:							
- unlisted		2				2	n,d,
- listed						-	-
Financial assets held to maturity					-	-	-
Other non-current financial assets					62	62	62
Total other non-current financial assets	3					64	
Other non-current assets	5		4		83	87	87
Trade receivables	7				2,696	2,696	2,696
Other current assets	8	1,715	36		486	2,237	2,237
Current financial assets	9				32	32	32
Cash and cash equivalents	11				2,416	2,416	2,416
Liabilities							
Financial liabilities							
Non-current and current bonds	17 and 22		89		5,369	5,458	5,458
Other non-current and current financial liabilities	17 and 22				1,378	1,378	1,378
Other non-current liabilities	20		2		390	392	392
Trade payables	21				2,981	2,981	2,981
Other current liabilities	21	1,558	28		632	2,218	2,218

^(*) The fair value has not been calculated for receivables and payables not related to derivative contracts and loans as the corresponding carrying amount is a good approximation to this.

⁽¹⁾ Financial assets and liabilities measured at fair value with the changes in fair value recognized in the Income Statement.

⁽²⁾ Cash flow hedges.
(3) Financial assets available for sale measured at fair value with profit/loss recognized in equity.
(4) Loans and receivables and financial liabilities measured at amortized cost.

Fair value hierarchy

IFRS 7 and IFRS 13 require that fair value classification of financial instruments to be based on the quality of the input source used to calculate the fair value.

In particular, IFRS 7 and IFRS 13 set out three levels of fair value:

- level 1: this level consists of financial assets and liabilities for which fair value is based on (unadjusted) prices for identical assets or liabilities quoted on active official or over-the-counter markets;
- level 2: this level consists of financial assets and liabilities for which fair value is based on inputs other than quoted prices included within level 1 that are observable for the asset or liability either directly or indirectly;
- level 3: this level consists of financial assets and liabilities for which fair value is based on unobservable market data. This level includes instruments measured on the basis of internal estimates made using proprietary methods based on best sector practice.

An analysis of the assets and liabilities included in the three fair value levels is set out in the following fair value hierarchy table.

millions of euro	Note	Level 1	Level 2	Level 3	Total
Assets measured at fair value	3		2		2
Other non-current assets	5		4		4
Other current assets	8	1,750		1	1,751
Total assets		1,750	6	1	1,757
Non-current financial liabilities	17	89			89
Other non-current liabilities	20		2		2
Other current liabilities	21	1,578	3	5	1,586
Total liabilities		1,667	5	5	1,677

Sensitivity analysis for financial instruments included in level 3

As required by IFRS 13, the following table sets out the effects arising from changes in the unobservable parameters used in calculating fair value for financial instruments included in level 3 of the hierarchy.

Financial instrument	Parameter	Parameter change	Sensitivity (millions of euro)
Commodity Derivatives	Probability of Default (PD)	1%	(0,004)
Commodity Derivatives	Loss Given Default (LGD)	25%	(0,000)
Commodity Derivatives	Price underlying interconnection capacity zonal Italy (CCC)	1%	0,007

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3) Update of the main legal and tax disputes still pending

Adequate provisions are provided where necessary for the disputes and litigation described below.

It is noted that if there is no explicit reference to the presence of a provision, the Group assessed the corresponding risk as possible without appropriating provisions in the financial statements.

Please note that below reference is made only to: (i) developments of litigations already reported in the 2022 Consolidated Financial Report, without the extensive description of the individual positions, for which please refer to the Report, (ii) new litigations of the same level of significance, and (iii) material subsequent events relating to litigations not reported in the 2022 Consolidated Financial Report due to protracted inactivity of the litigation.

A2A S.p.A.

Reorganization of Edison - compensation cases

Carlo Tassara: first lawsuit for damages against EDF and A2A S.p.A. second instance before the Court of Appeal of Milan

We are still waiting for the hearing for closing arguments, already set for May 8, 2024, to be postponed from the hearing date set for July 12, 2023.

Carlo Tassara: second lawsuit for damages against Transalpina dell'Energia and A2A S.p.A. first instance

At the hearing for closing arguments set for July 4, 2023, the plaintiff filed a motion for adjournment to allow this court to hear the outcome of the complaint notified in the Class Action below. The order filed on July 4, 2023 rejected this request and retained the case for decision, granting the parties time to file pleadings (October 3 and 23, 2023).

Class Action notified by ordinary shareholder - complaint judgment

At the first hearing of the complaint judgment set by the Court of Appeal on May 10, 2023, the Court of Appeal adjourned the case to the hearing on November 15, 2023 to allow the plaintiff some notifications.

Derivations of public water for the production of hydroelectricity in Lombardy

A number of appeals are still pending before the Court of Cassation in which A2A and Linea Green have challenged the measures issued by the Lombardy Region to regulate the continuation of water derivation for hydroelectric use even after the expiry of their respective concessions.

In addition, appeals were rooted against the Lombard and Friulian regional regulations related to derivation fees resulting from the provisions introduced by Conversion Law No. 12/2019 of Decree-Law No. 135/2018 regarding the conditions of the temporary continuation of expired concessions, regarding the free transfer of energy and regarding the variable and fixed components of the state fee.

The first Lombardy regulations implementing the competitive awarding of expired concessions were also challenged.

For disputes relating to public water derivation fees, the Company allocated adequate provisions for risks on a prudent basis, the quantification of which also takes into account the payments - subject to any subsequent repayment upon the final outcome of the respective legal proceedings - of certain positions, for the sole purpose of preventing additional costs.

Shareholders' Agreement between A2A and Pessina Costruzioni for the management of ASM NOVARA S.P.A.

In March 2013, Pessina Costruzioni instituted arbitration proceedings against A2A to have declared the breach of the shareholders' agreement relating to ASM NOVARA S.p.A. (now extinct) and to order A2A to pay damages accordingly. On June 30, 2015, the Arbitration Board, with the dissenting opinion of the arbitrator appointed by A2A filed its award that deems A2A responsible for violation of the shareholders' agreement signed on August 4, 2007 and, consequently, orders to pay damages.

The Court of Appeal of Milan on November 23, 2016 by Judgment 4337/16 confirmed the award.

The Court of Cassation, in Order 18220 filed on June 26, 2023, upheld the first ground of the appeal notified by A2A, held the remaining grounds to be absorbed, and remitted the case to the Court of Appeal of Milan to examine all the grounds of appeal. The company will resume the case by the deadline of October 27, 2023.

A2A Energiefuture S.p.A.

Monfalcone Plant (RNR 195/17 Public Prosecutor of Gorizia)

On October 31, 2023, the first hearing will take place in the proceedings against a natural person, who at the time was assigned the functions of central head, and the company for the consequent administrative liability, for the offences referred to in Articles 452 bis and 452 quinquies of the Criminal Code (culpable environmental pollution against the environment) and under Article 25 undecies paragraph 1 lett.a) and c) of Legislative Decree 231/01.

The notice of conclusion of the investigation was served on July 1, 2022.

Power plant in San Filippo del Mela R.G.N.R. 917/2022 and 2113/2022 R.G. GIP (Preliminary Investigations Judge)

In February 2023, the plant manager was served with a notice of extension of preliminary investigation for the investigation of the violation of Article 256 of Legislative Decree 152/2006 (unauthorized waste management activities), which also constitutes a predicate offence for the liability of the entity, pursuant to Article 25 undecies paragraph 2 letter b) of Legislative Decree no. 231/2001, an entity which is in fact mentioned in the same notice although it was not notified. The notice also mentions a supplier involved in the treatment of one type of waste produced by the plant.

Linea Ambiente S.r.l.

Court of Taranto - Criminal Proceeding R.G.N.R. 2785/18

On May 15, 2023, Judgment 3459/2022 was filed, at the conclusion of the proceedings at first instance instituted to ascertain the crimes of corruption for an act contrary to the duty of office (Articles 81, 319, 321, 112 no. 1, Criminal Code) against a number of individuals, including the then President of the Province of Taranto, the provincial manager who, on April 5, 2018, issued executive decision 45 authorizing the substantial variation of the authorization to operate the Grottaglie - Torre Caprarica landfill site in favor of the company Linea Ambiente and the then General Manager of Linea Ambiente.

The A2A Ambiente employee was sentenced to eight years plus disqualification penalties. If the civil parties (Province of Taranto, Municipality of Grottaglie and Municipality of San Marzano of S. Giuseppe) want to insist on the claim for damages, they will have to file a new ordinary cognition action before the civil judge.

By the deadline of June 29, 2023, the employee of A2A Ambiente filed an appeal, thus preventing the judgment from becoming final.

Court of Taranto no. 5400/19 R.G. Administrative Responsibility

Criminal proceeding no. 5400/19 R.G. Admin. Resp. of Entities for bribery offences pursuant to article 25, paragraph 2, of Legislative Decree 231/01 ended the preliminary hearing phase with the indictment of the company and setting the first hearing for September 13, 2023.

Judgment 3459/2022 is also relevant to these proceedings, despite the fact that it is already the subject of an appeal.

Linea Ambiente vs. Provincia of Taranto - Grottaglie Landfill

In January 2021 (with reiteration in February 2022), the Province of Taranto sent a warning notice for the removal of the waste dumped during the period of validity of DD 45/18, which also constitutes a response to the requests that the company had made in previous years regarding the procedures for fulfilling the obligations resulting from the Sentence of the Council of State no. 5985/2019, which had annulled the substantial variation no. 45/2018.

In view of the flaws in the deed, the company appealed to the Apulia Regional Administrative Court to have the warning cancelled and notified additional grounds against the February 2022 communication; a hearing on the merits has not yet been scheduled.

In addition, the company filed an application with the Apulia Region in May 2023 for the issuance of a Single Regional Authorization Measure that would simultaneously resolve the inherent orographic criticalities of the landfill, adapt the current Integrated Environmental Authorization (AIA), and keep on site the waste dumped during the term of DD 45/18.

Lecce Public Prosecutor's Office - Criminal Proceeding no. 6369/2019 R.G.N.R.

On February 26, 2020, at the Rovato headquarters of Linea Ambiente S.r.l., the Brescia Finance Police executed the "Search and Seizure Warrant" issued on February 5, 2020 by the Lecce Public Prosecutor's Office in relation to criminal proceedings no. 6369/2019 R.G.N.R.

The criminal proceedings have been filed against the company Linea Ambiente S.r.l. and the legal representative pro tempore for the offences referred to in articles 452 quaterdecies of the Italian Criminal Code (activities organised for the illicit waste trafficking) and 256 and paragraphs 1 and 3 of Legislative Decree 152/2006 (respectively waste collection, transport and disposal activities in the absence of the prescribed authorization/ registration and the construction and management of unauthorized landfills) from which the company's administrative liability derives pursuant to articles 24 and 25 undecies of Legislative Decree 231/2001 and this - the said measure states - "in order to have, with several operations and through the setting up of continuous and organized means and activities, managed and illegally disposed of large quantities of urban waste, creating an illegal landfill, in order to obtain an unfair profit". These alleged offences were supposedly committed in "Rome and Grottaglie from November 1, 2014 to January 28, 2019 with permanence". The company AMA S.p.A. of Rome, "owner of the TMB Rocca Cencia and Salario plants in Rome", was also registered in the same proceedings.

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The company has been informed that individuals who are legal representatives or directors of Linea Ambiente S.r.l. and AMA S.p.A. have received only a first request to extend the preliminary investigations in the same proceedings.

Amsa S.p.A.

Milan Public Prosecutor's Office - Criminal Proceeding no. 33490/16 R.G.N.R.

After the Public Prosecutor formulated the sentencing demands for the defendants at the hearing on May 15, 2023, the hearing for the reading of the verdict was set for October 2, 2023.

Acinque S.p.A. (ex ACSM-AGAM S.p.A.)

Acinque S.p.A. (formerly ACSM-AGAM S.p.A.) and Acinque Ambiente S.r.I. (formerly Acsm Agam Ambiente S.r.I.): lawsuit for damages against the Municipality of Varese regarding the municipal sanitation concession

Acinque S.p.A. (formerly ACSM-AGAM S.p.A.) and Acinque Ambiente S.r.I. (formerly ACSM-AGAM S.p.A.), in 2020, filed a lawsuit with the Special Business Court of Milan seeking a declaration of contractual and non-contractual non-fulfilment by the Municipality of Varese, with a consequent order for damages. The Municipality of Varese caused direct damage to the assets of the Acinque Group (formerly ACSM-AGAM) by ordering the early termination of the service contract signed with Acinque Ambiente S.r.l. (formerly Acsm Agam Ambiente S.r.l.). Acinque Ambiente S.r.l. (formerly Acsm Agam Ambiente S.r.l.) in fact reduced the income flows connected to the contract and bore unforeseen and otherwise avoidable charges for the transitory continuation of the contract at more onerous conditions and Acinque S.p.A. (formerly ACSM-AGAM S.p.A.) suffered a significant reduction in the value of the subsidiary's equity investment, despite and after the signing of the Framework Agreement that characterized the extraordinary transaction in 2018.

Following the order of the Court of Milan and the jurisdiction the lack of jurisdiction of the Court of Milan and the jurisdiction of the ordinary Court of Varese, the Companies resumed the proceedings before the Court of Varese and at the hearing of July 11, the Judge adjourned the case, granting the parties time-limits to file their closing briefs (specifically, October 10, 2023 for the closing briefs and October 30, 2023 for the reply briefs).

Monza Public Prosecutor's Office - Criminal Proceeding no. 1931/2021 R.G.N.R.

On July 5, 2023, several natural persons were notified of the conclusion of preliminary investigations. The proceedings had arisen from complaints submitted between late 2019 and 2020 by a Seregno municipal councillor belonging to opposition parties for the investigation of offences committed in the context of activities related to the extraordinary merger between AEB and A2A. The notice of conclusion of the preliminary investigations, announced by a press release issued by the Public Prosecutor's Office of Monza on July 7, 2023, indicates as contested offences Article 353bis of the Criminal Code (disturbance of the freedom of the procedure for choosing a contractor), and article 353 of the Criminal Code (Bid rigging).

None of the members of the current A2A Board of Directors is involved in the reported preliminary investigations.

A2A Ambiente S.p.A.

Busto Arsizio Public Prosecutor's Office - Criminal Proceeding no. 9079/2021 R.G.N.R. (formerly no. 24/2017 R.G.N.R.)

The then manager of the Gerenzano landfill plant and the respective head of the organizational structure were the subject of preliminary investigations that were last closed in March 2023 for the alleged offences under Articles 81 paragraph 2 (continuation), 110 (conspiracy), 452 quater (environmental disaster), 452 septies (obstruction of control) of the Criminal Code.

A decision is pending regarding the preliminary hearing date.

Gerenzano is a former quarry, later converted into a landfill, located in the territory of the municipality of the same name, which owns it, with an area of about 80 hectares. It is divided into two lots Gerenzano 1 and Gerenzano 2.

Gerenzano 1 is the original unit, dating back to the mid-1960s when waste disposal activities began. At the end of the 1970s, 200 municipalities, including the Municipality of Milan, delivered waste there. In July 1980, the municipality of Gerenzano and the municipal company of the municipality of Milan (then AMNU) signed an agreement to assign the management of the landfill to AMNU. The cultivation of Gerenzano 1 by AMNU continued until 1988. A new area was then identified where Gerenzano 2 was built and operated until 1991. From that date onwards, post-mortem management activities began, now exercised by A2A Ambiente, in execution of the service contract signed in 2001 between the Municipality of Milan and AMSA, now under technical extension pending the awarding of the tender called by the Municipality.

The following information is provided in connection with the main litigation of a fiscal nature.

A2A gencogas S.p.A. (formerly Abruzzoenergia S.p.A.) - General IRES/IRAP/VAT audit for fiscal years 2014 and 2015

There are no updates. A risk provision of 2 million euro has been recognized.

A2A S.p.A. - Registration tax for transfer of business unit and sale of the investment Chi.na.co. S.r.l.

There are no updates. The risks provision recognized for 1.4 million euro was fully used for the payment of the amounts requested with the liquidation notice.

A2A S.p.A. (merging company of AMSA Holding S.p.A.) - VAT Tax assessments for tax years from 2001 to 2005

There are no updates. No provisions for risks have been recognized.

A2A Ciclo Idrico S.p.A. – IMU assessment notices of Municipality of Montichiari for the years 2013-2018

On November 22, 2022, the company filed an appeal and a hearing is pending. A risk provision of 0.7 million euro has been recognized.

A2A Energia S.p.A. (merging company of Linea Più S.p.A.) - General IRES/IRAP/VAT audit for fiscal years 2013 and 2014

At the hearing of June 10, 2022, the Regional Tax Commission of Milan rejected the Office's appeal. The terms for the filing of the appeal for Cassation by the Office are pending. A risk provision of 10.3 million euro has been recognized.

A2A Ambiente S.p.A. - Tax audit on sulphur dioxide and nitrogen oxides SO2 NOx emissions for the 2014 and 2019 tax periods

On November 7, 2022, the company filed an appeal, which was upheld by the CGT II of Naples at the hearing on May 3, 2023. The terms for the filing of the appeal for Cassation by the Office are pending. A risk provision of 0.5 million euro has been recognized.

Linea Ambiente S.r.l. - General IRES/IRAP/VAT audit for fiscal years 2017-2019

An invitation to cross-examination was served on June 29, 2023. A risk provision of 0.326 million euro has been recognized.

* * *

The company has availed itself of the possibility permitted by article 70, paragraph 8 and article 71, paragraph 1-bis of the Issuers' Regulations, and hence of derogating from the requirement to make an information document available to public in the event of significant mergers, spin-offs, share capital increases by means of the contribution of assets in kind, acquisitions and disposals.

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Attachments to the Notes to the Half-yearly condensed consolidated financial statements

1. List of companies included in the consolidated report

Company name	Registered office	Share capital (thousands of euro unless otherwise indicated)	% of shareholding consolidated by Group at 06 30 2023 (line-by-line consolidation)	Shareholding %	Shareholder
Scope of consolidation					
Unareti S.p.A.	Brescia	965,250	100.00%	100.00%	A2A S.p.A.
A2A Calore & Servizi S.r.l.	Brescia	150,000	100.00%	100.00%	A2A S.p.A.
A2A Smart City S.p.A.	Brescia	3,448	100.00%	100.00%	A2A S.p.A.
A2A Energia S.p.A.	Milan	3,000	100.00%	100.00%	A2A S.p.A.
A2A Ciclo Idrico S.p.A.	Brescia	70,000	100.00%	100.00%	A2A S.p.A.
A2A Ambiente S.p.A.	Brescia	250,000	100.00%	100.00%	A2A S.p.A.
A2A Montenegro d.o.o.	Podgorica (Montenegro)	100	100.00%	100.00%	A2A S.p.A.
A2A Energiefuture S.p.A.	Milan	50,000	100.00%	100.00%	A2A S.p.A.
A2A gencogas S.p.A.	Milan	450,000	100.00%	100.00%	A2A S.p.A.
A2A Servizi S.r.l.	Milan	-	100.00%	100.00%	A2A S.p.A.
A2A Airport Energy S.p.A.	Milan	5,200	100.00%	100.00%	A2A Calore & Servizi S.r.l.
Termica Cologno S.r.l.	Milan	1,000	100.00%	100.00%	A2A Calore & Servizi S.r.l.
Retragas S.r.l.	Brescia	34,495	91.60%	91.60%	A2A S.p.A. (87.27%) Unareti S.p.A. (4.33%)
Camuna Energia S.r.l.	Cedegolo (BS)	900	89.00%	89.00%	A2A S.p.A. (74.50%) Linea Green S.p.A. (14.50%)
A2A Alfa S.r.l. in liquidation	Milan	100	70.00%	70.00%	A2A S.p.A.
Proaris S.r.l. in liquidation	Milan	1,875	60.00%	60.00%	A2A S.p.A.
Azienda Servizi Valtrompia S.p.A.	Gardone Val Trompia (BS)	8,939	74.80%	74.80%	A2A S.p.A. (74.55%) Unareti S.p.A. (0.25%)
Yada Energia S.r.l.	Milan	4,000	100.00%	100.00%	A2A S.p.A.
LaboRAEE S.r.l.	Milan	90	100.00%	100.00%	Amsa S.p.A.
Ecodeco Hellas S.A. in liquidation	Atene (Greece)	60	100.00%	100.00%	A2A Ambiente S.p.A.
Ecolombardia 4 S.p.A.	Milan	13,515	68.78%	68.78%	A2A Ambiente S.p.A.
Sicura S.r.l.	Milan	1,040	96.80%	96.80%	A2A Ambiente S.p.A.
Sistema Ecodeco UK Ltd	Canvey Island Essex (UK)	250 (GBP)	100.00%	100.00%	A2A Ambiente S.p.A.
A.S.R.A.B. S.p.A.	Cavaglià (BI)	2,582	70.00%	70.00%	A2A Ambiente S.p.A.
Nicosiambiente S.r.l.	Milan	50	99.90%	99.90%	A2A Ambiente S.p.A.
Bioase S.r.l.	Sondrio	677	70.00%	70.00%	A2A Ambiente S.p.A.
Aprica S.p.A.	Brescia	10,000	100.00%	100.00%	A2A Ambiente S.p.A.
Amsa S.p.A.	Milan	10,000	100.00%	100.00%	A2A Ambiente S.p.A.
SED S.r.l.	Robassomero (TO)	1,250	100.00%	100.00%	A2A Ambiente S.p.A.
TecnoA S.r.l.	Brescia	3,000	100.00%	100.00%	A2A Ambiente S.p.A.
Bergamo Servizi S.r.l.	Brescia	10	100.00%	100.00%	Aprica S.p.A.
A2A Recycling S.r.l.	Novate Milanese (MI)	5,000	100.00%	100.00%	A2A Ambiente S.p.A.

8.1 1. List of companies included in the consolidated report
8.2 2. List of shareholdings

8.3 3. List of holdings in other companies

in companies carried at equity

Company name	Registered office	Share capital (thousands of euro unless otherwise indicated)	% of shareholding consolidated by Group at 06 30 2023 (line-by-line consolidation)	Shareholding %	Shareholder
A2A Integrambiente S.r.l.	Brescia	10	100.00%	100.00%	A2A Ambiente S.p.A. (74%) Aprica S.p.A. (1%) Amsa S.p.A. (25%)
Electrometal S.r.l	Castegnato (BS)	200	90.00%	90.00%	A2A Ambiente S.p.A.
Areslab S.r.l.	Brescia	10	100.00%	100.00%	A2A Ambiente S.p.A.
A2A Security S.c.p.a.	Milan	52	99.81%	99.81%	A2A S.p.A. (45.96%) Unareti S.p.A. (18.37%) A2A Ciclo Idrico S.p.A. (10.49%) Amsa S.p.A. (9.14%) A2A gencogas S.p.A. (3.95%) A2A Ambiente S.p.A. (3.95%) A2A Calore & Servizi S.r.I. (2.60%) A2A Energiefuture S.p.A. (1.93%) A2A Energiefuture S.p.A. (0.19%) A2A Energy Solutions S.r.I. (0.19%) Linea Gestioni S.r.I. (0.19%) Linea Gestioni S.r.I. (0.19%) Linea Ambiente S.r.I. (0.19%) A2A Recycling S.r.I. (0.19%) A2A Smart City S.p.A. (0.19%) A2A Smart City S.p.A. (0.19%) Aprica S.p.A. (0.19%) Lomellina Energia S.r.I. (0.19%) Lereti S.p.A. (0.19%) Azienda Servizi Valtrompia S.p.A. (0.19%) Acinque Energia S.r.I. (0.19%) Acinque Tecnologie S.p.A. (0.19%) Reti Valtellina Valchiavenna S.r.I. (0.19%) Acinque Farmacie S.r.I. (0.19%)
BIOENERGIA GUALDO S.r.I.	Gualdo Tadino (PG)	10	80.00%	80.00%	A2A Ambiente S.p.A.
WALDUM TADINUM ENERGIA S.r.I.	Gualdo Tadino (PG)	10	90.00%	90.00%	A2A Ambiente S.p.A.
ENERGIA ANAGNI S.r.l.	Anagni (FR)	10	55.00%	55.00%	A2A Ambiente S.p.A.
BIOENERGIA ROCCASECCA S.r.l.	San Vito (FR)	10	55.00%	100.00%	Energia Anagni S.r.l.
LumEnergia S.p.A.	Villa Carcina (BS)	300	94.72%	94.72%	A2A Energia S.p.A.
A2A Energy Solutions S.r.l.	Milan	4,000	100.00%	100.00%	A2A S.p.A.
ES Energy S.r.l.	Jesi (AN)	10	50.00%	50.00%	A2A S.p.A.
A2A Rinnovabili S.p.A.	Milan	50	100.00%	100.00%	A2A S.p.A.
INTHE 2 S.r.I.	Milan	210	100.00%	100.00%	A2A Rinnovabili S.p.A.
Fair Renew S.r.l.	Milan	10	60.00%	60.00%	A2A Rinnovabili S.p.A.
renewA21 S.r.l.	Milan	20	100.00%	100.00%	A2A Rinnovabili S.p.A.
renewA22 S.r.l.	Milan	220	100.00%	100.00%	A2A Rinnovabili S.p.A.

Company name	Registered office	Share capital (thousands of euro unless otherwise indicated)	% of shareholding consolidated by Group at 06 30 2023 (line-by-line consolidation)	Shareholding %	Shareholder
Albinoni Energia S.r.l.	Milan	-	100.00%	100.00%	A2A Rinnovabili S.p.A.
Bellini Energia S.r.l.	Milan	-	100.00%	100.00%	A2A Rinnovabili S.p.A.
Corelli Energia S.r.l.	Milan	-	100.00%	100.00%	A2A Rinnovabili S.p.A.
Leoncavallo Energia S.r.l.	Milan	-	100.00%	100.00%	A2A Rinnovabili S.p.A.
Monteverdi Energia S.r.l.	Milan	-	100.00%	100.00%	A2A Rinnovabili S.p.A.
Tartini Energia S.r.l.	Milan	-	100.00%	100.00%	A2A Rinnovabili S.p.A.
Trovaioli Energia S.r.l.	Milan	-	100.00%	100.00%	A2A Rinnovabili S.p.A.
Gash 1 S.r.l.	Milan	10	100.00%	100.00%	A2A Rinnovabili S.p.A.
Gash 2 S.r.l.	Milan	10	100.00%	100.00%	A2A Rinnovabili S.p.A.
Volta Green Energy S.r.l.	Milan	10	100.00%	100.00%	A2A Rinnovabili S.p.A.
VGE 01 S.r.l.	Milan	10	70.00%	70.00%	Volta Green Energy S.r.l.
VGE 02 S.r.l.	Milan	10	100.00%	100.00%	Volta Green Energy S.r.l.
VGE 03 S.r.l.	Milan	10	100.00%	100.00%	Volta Green Energy S.r.l.
VGE 04 S.r.l.	Milan	10	100.00%	100.00%	Volta Green Energy S.r.l.
VGE 06 S.r.l.	Milan	10	100.00%	100.00%	Volta Green Energy S.r.l.
R2R S.r.l.	Rovereto (TN)	10	60.00%	60.00%	A2A Rinnovabili S.p.A.
Linea Gestioni S.r.l.	Crema (CR)	6,000	100.00%	100.00%	A2A Ambiente S.p.A.
LD Reti S.r.l.	Lodi	32,976	95.60%	95.60%	A2A S.p.A.
Linea Green S.p.A.	Cremona	7,000	100.00%	100.00%	A2A S.p.A.
Linea Ambiente S.r.l.	Rovato (BS)	1,400	100.00%	100.00%	A2A Ambiente S.p.A.
Fragea S.r.l. società agricola	Sesto ed Uniti (CR)	20,000	100.00%	100.00%	AGRIPOWER S.p.A.
AGRIPOWER S.p.A.	Milan	600	100.00%	100.00%	A2A Ambiente S.p.A.
DONNA RICCA BIOENERGIA S.R.L. SOCIETA' AGRICOLA	Milan	10	51.00%	51.00%	AGRIPOWER S.p.A.
IUMAGAS BIOENERGY SOCIETA' AGRICOLA A.R.L.	Milan	50	51.00%	51.00%	AGRIPOWER S.p.A.
MARSICA AGROENERGIA S.R.L.	Milan	60	54.02%	54.02%	AGRIPOWER S.p.A.
PONZANO BIOENERGIA SOCIETA' AGRICOLA A.R.L.	Milan	40	51.00%	51.00%	AGRIPOWER S.p.A.
PRATI BIOENERGIA SOCIETA' AGRICOLA A.R.L.	Bologna	40	51.00%	51.00%	AGRIPOWER S.p.A.
ROBERTA BIOENERGIA S.R.L.	Milan	10	51.00%	51.00%	AGRIPOWER S.p.A.
SAN QUIRICO BIOENERGIA SOCIETA' AGRICOLA A.R.L.	Milan	160	93.75%	93.75%	AGRIPOWER S.p.A.
SCALENGHE BIOGAS SOCIETA' AGRICOLA S.R.L.	Milan	10	82.00%	82.00%	AGRIPOWER S.p.A.
STROVINA BIOENERGIA SOCIETA' AGRICOLA A.R.L.	Milan	40	51.00%	51.00%	AGRIPOWER S.p.A.
TORRE ZUINA SOCIETA' AGRICOLA A.R.L.	Milan	10	51.00%	51.00%	AGRIPOWER S.p.A.
TULA BIOENERGIA SOCIETA' AGRICOLA A.R.L.	Milan	40	51.00%	51.00%	AGRIPOWER S.p.A.
VITTORIA BIOENERGIA S.R.L.	Milan	50	75.00%	75.00%	AGRIPOWER S.p.A.
CONSORZIO UMBRIA BIOENERGIA	Zola Predosa (BO)	1	90.92%	90.92%	AGRIPOWER S.p.A.
Lomellina Energia S.r.l.	Parona (PV)	358	100.00%	100.00%	A2A Ambiente S.p.A. (64.30%) Linea Ambiente S.r.I. (35.70%)
Asm Energia S.p.A.	Vigevano (PV)	2,511	45.00%	45.00%	A2A Energia S.p.A.
Acinque S.p.A.	Monza	197,344	41.34%	41.34%	A2A S.p.A.

8.1
1. List of companies
included in the
consolidated
report

8.2 2. List of shareholdings in companies carried at equity

8.3 3. List of holdings in other companies

Company name	Registered office	Share capital (thousands of euro unless otherwise indicated)	% of shareholding consolidated by Group at 06 30 2023 (line-by-line consolidation)	Shareholding %	Shareholder
Lereti S.p.A.	Como	86,450	100.00%	100.00%	Acinque S.p.A.
ComoCalor S.p.A.	Como	3,516	51.00%	51.00%	Acinque S.p.A.
Reti Valtellina Valchiavenna S.r.l.	Sondrio	2,000	100.00%	100.00%	Acinque S.p.A.
Acinque Energia S.r.l.	Lecco	17,100	99.75%	99.75%	Acinque S.p.A.
Acinque Ambiente S.r.l.	Varese	4,500	100.00%	100.00%	Acinque S.p.A.
Acinque Tecnologie S.p.A.	Monza	6,000	100.00%	100.00%	Acinque S.p.A.
Acinque Innovazione S.r.l.	Monza	21,800	100.00%	100.00%	Acinque S.p.A.
Acinque Farmacie S.r.l.	Sondrio	100	100.00%	100.00%	Acinque S.p.A.
Acinque Energy Greenway S.r.l.	Monza	8,464	70.00%	70.00%	Acinque Tecnologie S.p.A.
A2A E-MOBILITY S.r.l.	Milan	1,000	100.00%	100.00%	A2A S.p.A.
Ambiente Energia Brianza S.p.A.	Seregno (MB)	119,496	33.52%	33.52%	A2A S.p.A.
A2A Illuminazione Pubblica S.r.l.	Brescia	19,000	100.00%	100.00%	Ambiente Energia Brianza S.p.A.
Gelsia S.r.l.	Seregno (MB)	20,345	100.00%	100.00%	Ambiente Energia Brianza S.p.A.
RetiPiù S.r.l.	Desio (MB)	110,000	100.00%	100.00%	Ambiente Energia Brianza S.p.A.
VGE 05 S.r.l.	Seregno (MB)	10	90.00%	90.00%	Ambiente Energia Brianza S.p.A.
Gelsia Ambiente S.r.l.	Desio (MB)	4,671	100.00%	100.00%	Ambiente Energia Brianza S.p.A. (70%) A2A Integrambiente S.r.I. (30%)
4NEW S.r.l.	Milan	811	100.00%	100.00%	A2A Rinnovabili S.p.A.
4NEW MONTE GRIGHINE S.r.l.	Milan	10,000	100.00%	100.00%	4NEW S.r.l.
CERVETERI ENERGIA S.r.l.	Milan	21	100.00%	100.00%	4NEW S.r.l.
DE - STERN 12 S.r.l.	Milan	50	100.00%	100.00%	4NEW S.r.l.
STCS S.r.l.	Milan	10	100.00%	100.00%	4NEW S.r.l.
LA CASTILLEJA ENERGIA SL	Madrid (ES)	4	100.00%	100.00%	GLOBAL ONEGA SL
SISTEMES ENERGETICS CONESA I SOCIEDAD LIMITADA	Madrid (ES)	3	100.00%	100.00%	RESPETO AL MEDIO AMBIENTE SL (50%) GLOBAL ONEGA SL (50%)
GLOBAL ONEGA SL	Madrid (ES)	10	100.00%	100.00%	4NEW S.r.l.
RESPETO AL MEDIO AMBIENTE SL	Madrid (ES)	3	100.00%	100.00%	4NEW S.r.l.
3 New & Partners S.r.l.	Milan	25,000	100.00%	100.00%	A2A Rinnovabili S.p.A.
3 New & Partners rinnovabili S.r.l.	Milan	10	100.00%	100.00%	3 New & Partners S.r.l.
Mimiani wind S.r.l.	Milan	100	100.00%	100.00%	3 New & Partners S.r.l.
Daunia Calvello S.r.l.	Milan	100	100.00%	100.00%	3 New & Partners rinnovabili S.r.l. (51%) A2A Rinnovabili S.p.A. (49%)
Daunia Serracapriola S.r.l.	Milan	2,000	100.00%	100.00%	3 New & Partners rinnovabili S.r.l. (70%) A2A Rinnovabili S.p.A. (30%)

2. List of shareholdings in companies carried at equity

Company name	Registered office	Share capital (thousands of euro)	Shareholding %	Shareholder	Carrying amount at 06 30 2023 (thousands of euro)
Shareholdings in companies carried at equity					
PremiumGas S.p.A. in liquidation	Bergamo	120	50.00%	A2A Alfa S.r.l. in liquidation	-
Ergosud S.p.A.	Rome	81,448	50.00%	A2A gencogas S.p.A.	-
Metamer S.r.l.	San Salvo (CH)	650	50.00%	A2A Energia S.p.A.	2,589
NETCITY S.r.I.	Pescara	20	49.00%	A2A Energia S.p.A.	1,478
SET S.r.l.	Toscolano Maderno (BS)	104	49.00%	A2A S.p.A.	996
Messina in Luce S.c.a r.l.	Monza	20	70.00%	Acinque Tecnologie S.p.A. (55%) A2A Illuminazione Pubblica S.r.l.(15%)	11
Serio Energia S.r.l.	Concordia sulla Secchia (MO)	1,000	40.00%	A2A S.p.A.	328
Visano Soc. Trattamento Reflui S.c.a.r.l.	Brescia	25	40.00%	A2A S.p.A.	10
Blugas Infrastrutture S.r.l.	Mantova	14,300	27.51%	A2A S.p.A.	4,269
COSMO Società Consortile a Responsabilità Limitata	Brescia	100	52.00%	A2A Calore & Servizi S.r.l.	134
Crit S.c.a.r.l.	Cremona	548	33.00%	A2A Smart City S.p.A.	125
Suncity Group S.r.l.	Pescara	14	26.00%	A2A Energy Solution S.r.l.	2,104
G.Eco S.r.l.	Treviglio (BG)	500	40.00%	Aprica S.p.A.	2,992
Bergamo Pulita S.r.l.	Bergamo	10	50.00%	A2A Ambiente S.p.A.	73
Tecnoacque Cusio S.p.A.	Omegna (VB)	206	25.00%	A2A Ambiente S.p.A.	337
Fratelli Omini S.p.A.	Novate Milanese (MI)	260	30.00%	A2A Ambiente S.p.A.	6,020
ASM Codogno S.r.l.	Codogno (LO)	1,898	49.00%	Linea Gestioni S.r.l.	3,134
Prealpi Servizi S.r.l. in liquidation	Varese	5,451	12.47%	Acinque S.p.A.	-
Consul System S.p.A.	Ascoli Piceno	2,000	49.00%	A2A Energy Solution S.r.l.	7,148
Saxa Gres S.p.A.	Anagni (FR)	3,100	27.71%	A2A Ambiente S.p.A.	-
Società Agricola Mattioli Energia S.r.l.	Finale Emilia (MO)	20	20.00%	AGRIPOWER S.p.A.	475
Total shareholdings					32,223
Shareholdings held for sale					
Sviluppo Turistico Lago d'Iseo S.p.A.	Iseo (BS)	1,616	2.04%	A2A S.p.A.	-

3. List of holdings in other companies

Company name	Shareholding %	Shareholder	Carrying amount at 06 30 2023 (thousands of euro)
Immobiliare-Fiera di Brescia S.p.A.	0.90%	A2A S.p.A.	
AQM S.r.l.	7.80%	A2A S.p.A. (7.52%) LumEnergia S.p.A. (0.28%)	
AvioValtellina S.p.A.	0.18%	A2A S.p.A.	
Banca di Credito Cooperativo dell'Oglio e del Serio s.c.	n.s.	A2A S.p.A.	
L.E.A.P. S.c.a.r.l.	8.29%	A2A S.p.A.	
Guglionesi Ambiente S.c.a.r.l.	1.01%	A2A Ambiente S.p.A.	
S.I.T. S.p.A.	0.26%	Aprica S.p.A.	
Stradivaria S.p.A.	n.s.	A2A S.p.A.	
Tirreno Ambiente S.p.A. in liquidation	3.00%	A2A Ambiente S.p.A.	
DI.T.N.E. S.c.a.r.l.	1.74%	A2A S.p.A.	
E.M.I.T. S.r.I. in liquidation	10.00%	A2A S.p.A.	
COMIECO	5.67%	A2A Recycling S.r.l. (1.51%) A2A Ambiente S.p.A. (4.16%)	
CONAPI S.c.a.r.l.	20.00%	A2A Recycling S.r.l.	
Casalasca Servizi S.p.A.	13.88%	Linea Gestioni S.r.l.	
Sinergie Italiane S.r.l. in liquidation	23.25%	A2A S.p.A. (15.70%) Ambiente Energia Brianza S.p.A. (7.55%)	
Confidi Toscana S.c.a.r.l.	n.s.	Linea Ambiente S.r.l.	
Credito Valtellinese	n.s.	Linea Ambiente S.r.l.	
Futura S.r.l.	1.00%	A2A Calore & Servizi S.r.l.	
MORINA S.r.I.	5.00%	Azienda Servizi Valtrompia S.p.A.	
Comodepur S.c.p.a. in liquidation	9.81%	Acinque S.p.A.	
T.C.V.V.V. S.p.A.	0.25%	Acinque S.p.A.	
CIAL-CONSORZIO IMBALLAGGIO ALLUMINIO	0.60%	A2A Ambiente S.p.A.	
COREVE	0.88%	A2A Ambiente S.p.A.	
COREPLA-CONSORZIO RECUPERO PLASTICA NAZIONALE	3.04%	A2A Ambiente S.p.A.	
RICREA-CONSORZIO NAZIONALE RICICLO E RECUPERO IMBALLAGGI ACCIAIO	n.s.	A2A Ambiente S.p.A.	
CIC-CONSORZIO ITALIANO COMPOSTATORI	n.s.	A2A Ambiente S.p.A.	
Musa S.c.a.r.l.	7.00%	A2A S.p.A.	
Total investments in other companies			1,589

Attachments to the Notes to the Half-yearly condensed consolidated financial statements

1. List of companies included in the consolidated report

2. List of shareholdings in companies carried at equity

3. List of holdings in other companies



Evolution of the regulation and impacts on the Business Units of the A2A Group

From the second half of 2021 onwards, the energy markets became very tense and volatile; the situation was exacerbated in February 2022 by the outbreak of the Russian-Ukrainian conflict. To contain the impact of prices on end customers, the government has intervened with a series of initiatives, including: the cancellation of general system charges on electricity and gas bills; the reduction of VAT to 5% both for gas consumption for civil and industrial uses and later also for the supply of district heating services; the increase in the ISEE thresholds to access the facilities provided for economically disadvantaged customers and those in physical discomfort, together with the provision of additional compensation (CCI) for the social bonus; the introduction of tax credits for high-consumption customers, even those who are not energy-intensive/gas-intensive, against the increase in their energy costs beyond a predefined threshold compared to a pre-crisis reference; the payment in instalments of bills also with the intervention of SACE to support - under certain conditions - the liquidity needs of those involved; the withdrawal of alleged 'extra-profits' accrued in favor of certain market operators, with amounts allocated to the Treasury to cover measures in favor of end customers.

Only the regulatory provisions with an impact on 2023 are listed below.

Law Decree no. 4 of January 27, 2022, converted into Law no. 25 of March 28. 2022 (LD Sostegni ter)

Art. 15 bis of LD Sostegni ter, as amended by art. 11 of LD 9 August 2022, no. 115 (LD Aiuti bis converted into Law no. 142 of 21 September 2022), introduced a two-way compensation mechanism on the price of electricity fed into the grid for plants fuelled by renewable sources incentivized through the energy account and for all plants fuelled by renewable sources that are not incentivized and that entered into operation by January 2010. The mechanism establishes the economic regulation with the GSE of the differences, in the period from February 1, 2022 to June 30, 2023, between a reference price and the market price in the manner provided for in the LD. Energy subject to supply contracts concluded before certain dates, at prices not exceeding a reference threshold and not indexed, is excluded from the refund; in addition, for vertically integrated groups such as A2A, only contracts concluded between group companies, including non-producers, and other natural/legal persons outside the corporate group are relevant, ARERA Resolution 266/2022/R/eel established the modalities for implementing the

The economic adjustment took place for the period February-August 2022. Subsequently, billing by the GSE was suspended as a result of the Lombardy Regional Administrative Court's Sentence no. 02675 of December 1, 2022 annulling Resolution 266/2022/R/eel. On January 18, 2023, the Council of State, accepting the precautionary petition promoted by ARERA, reinstated the aforementioned Resolution, pending the judgment on the merits. Lastly, Resolution 143/2023/R/eel established the management of economic balancing items at the end of the period of application of the mechanism. The impact of the measure for the first half of 2023 was approximately 93 million euro.

Law Decree no. 14 of February 25, 2022, converted into Law no. 28 of April 5, 2022 (LD Ukraine)

In order to reduce gas consumption, the Ukrainian LD established the possibility of maximizing the use of coal- and oil-fired thermoelectric plants, instructing ARERA to establish the fees to reimburse any higher costs incurred by operators. Terna S.p.A., following the Guideline Act of the Minister of Ecological Transition of September 1, 2022, published the list of plants affected by the maximization, while Resolution 430/2022/R/eel established the criteria for the formulation of offers on the electricity market and the remuneration of plants. By a subsequent act of the MASE, the measure was extended until September 30, 2023.

Law Decree no. 21 of March 21, 2022, converted into Law no. 51 of May 20, 2022 (LD Taglia Prezzi)

The combined provisions of article 37 of LD Taglia Prezzi and article 55 of LD no. 50 of May 17, 2022 (LD Aiuti converted into Law no. 91 of July 15, 2022), provides for an extraordinary contribution on the alleged extra-profits of energy companies (payable, to the extent of the Group's interest, by entities carrying out the activity of electricity production), equal to 25% of the increase (if greater than 10% and greater than 5 million euro) of the difference between the asset and liability transactions of the period October 1, 2021 - April 30, 2022 compared to those of the corresponding period October 1, 2020 - April 30, 2021.

The Budget Law 2023 restricted the imposition of the contribution to companies whose turnover in 2021 was at least 75% derived from the activities covered by the measure. excluding transactions involving the sale and purchase of shares, bonds or other securities not representing goods and shares in the company between the entities subject to the withdrawal. If, due to the subsequent innovations, the amount already paid is higher than the amount due, the higher amount is recognized as compensation for the unit payments of taxes, contributions due to INPS and other sums in favor of the State, the Regions and social security institutions starting from March 31, 2023. Since for the A2A Group, the amount already paid in 2022 was higher than the amount due (the amounts not due are 10.7 million euro), 2.5 million euro was offset in the first half of 2023, while the remaining 8.2 million euro will be offset at a later date.

Law Decree no. 115 of August 9, 2022, converted into Law no. 142 of September 21, 2022 (LD Aiuti bis)

Article 3 suspended until April 30, 2023 (term then extended to June 30, 2023 by the Milleproroghe Decree) the effectiveness of any contractual clause that allows electricity and gas suppliers to unilaterally modify the general contract conditions relating to the definition of the price even if the right of withdrawal is contractually recognized to the counterparty. Consequently, the ineffectiveness of notices given for the aforementioned purposes before August 10, 2022 (date of entry into force of the Law Decree) has also been provided for,

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unless the contractual amendments had already been finalized. Subsequently, art. 11, paragraph 8, of the Milleproroghe Decree has clarified that the case of updating the economic conditions upon expiry (or upon renewal) is excluded from the scope of application of the law.

Law Decree no. 176 of November 18, 2022, converted into Law no. 6 of January 13, 2023 (LD Aiuti quater)

The deadline for the end of the protection service for domestic gas customers was extended from January 1, 2023 to January 10, 2024, in line with what has been foreseen for the end of the greater protection service for domestic electricity customers.

Law no. 197 of December 29, 2022 (Budget Law 2023)

In implementation of EU Regulation 2022/1854, the Budget Law 2023 provided for:

- a market revenue cap of 180 €/MWh, for the period from December 1, 2022 to June 30, 2023, applied to renewable source plants not affected by the mechanism under article 15 bis of LD Sostegni ter.
 The measure had no impact on the A2A Group in the first half of 2023;
- a new solidarity contribution equal to 50% of the amount of the share of income determined for income tax purposes for the year 2022, which exceeds the average income determined for income tax purposes in the period by at least 10% 2018-2021 (with a ceiling of 25% of the net asset value at the end of the 2021 financial year). The contribution is applied with reference to the same activities identified by LD Taglia Prezzi plus the sale of electricity, and is due if at least 75% of the revenues of the 2022 tax period are derived from these activities. The contribution, accruing in 2022, was paid during the first half of 2023 and amounts to approximately 117 million euro (non-deductible contribution).

Law Decree no. 34 of March 30, 2023, converted into Law no. 56 of May 26, 2023 (LD Bollette)

The following were also confirmed for the second quarter of 20231:

- concessions in the form of tax credits (albeit lower than in previous months) both for energy-intensive and gas-intensive companies and for those other than the latter and, with reference to electricity, equipped with meters with an available power of 4.5 kW or more:
- for gas only: the cancellation of general system charges and the maintenance of the negative UG2 component still for April 2023. VAT reduced to 5% is confirmed for the consumption of natural gas for civil and industrial uses and for the supply of district heating services;
- the enhancement of the social bonus for the supply of natural gas and electricity in support of economically and physically disadvantaged customers, reviewing the scope of application with reference to large families (Equivalent Economic Status Indicator equal to 30,000 euro).

General measures are then introduced for the definition of a fixed-rate contribution in the event that, in the fourth quarter of 2023, the average price of natural gas on the wholesale market exceeds the threshold of 45 €/MWh, and for which we are awaiting the definition of the criteria by the competent Ministries as well as the application methods by ARERA.

¹ For the first quarter of 2023, the same interventions were defined by the Budget Law 2023.

Generation and Trading Business Unit

Remuneration of the availability of production capacity: start of capacity market from 2022

The mechanism for remunerating production capacity (so-called capacity market) is a mechanism aimed at guaranteeing the adequacy of the electricity system: it is a one-way contract for differences entered into with Terna S.p.A. and awarded following an auction in which producers acquire the right to receive a bonus (in €/MW/year) with respect to the obligation to offer all the capacity committed in the MGP and the capacity not accepted as a result of the energy markets on MSD, returning to Terna S.p.A. the difference - if positive - between the market benchmark prices and a strike price (in €/MWh).

In relation to the delivery years 2022 and 2023, pursuant to the MiSE Ministerial Decree of June 28, 2019 and subject to the approval of the EU Commission, the relevant auctions were held on November 6 and 28, 2019 in which A2A S.p.A. was awarded approximately 5 GW/year (of which approximately 0.12 GW for 2022 and 0.24 GW for 2023 related to new capacity). The award price in both auctions was 33,000 €/MW/year for existing capacity and 75,000 €/MW/year for new capacity (15 years).

A number of appeals have been lodged against the mechanism both at national level and at the EU Court of Justice. In the EU, the judgement of September 7, 2022 dismissed the appeals with the conclusion of the litigation; the hearing on the merits of the TAR is expected in 2023.

Pursuant to MD MiTE October 28, 2021, the auction for the 2024 delivery took place on February 21, 2022 and A2A S.p.A. won about 5.4 GW of total capacity, of which 1.3 GW of new construction (combined cycles, photovoltaic plants, electrochemical storage), in particular: 4,096 MW of existing CDP² (33,000 €/MW/year), 20 MW of new authorized CDP (70,000 €/MW/year), 1,311 MW of new unauthorized CDP (48,110 €/MW/year). With reference to the new unauthorized CDP, the failure to deliver the authorization certificates for the Cassano CCGT by the deadline of June 30, 2023 led to the termination of the contract with Terna S.p.A. for 541 MW and the withholding of the quarantee and the non-interest-bearing security deposit for a total amount of about 1.9 million euro.

San Filippo del Mela and Monfalcone: essentiality regime and maximization of non-gas thermoelectric production

The San Filippo del Mela fuel oil plant owned by A2A Energiefuture S.p.A. is also included for 2023 in the list of essential plants and admitted to the cost reintegration regime pursuant to Resolution 741/2022/R/eel. The company has already applied for admission to the essentiality regime for 2024

Resolution no. 223/2023/R/eel granted the request, formulated in light of the change of fuel used in the power plant as of August 18, 2021, to amend the standard yield proposed by Terna S.p.A. for the periods August 18, 2021 - December 31, 2021 and January 1 - December 31, 2022.

San Filippo del Mela and the Monfalcone coal-fired plant are included in the non-gas thermoelectric production maximization program pursuant to Legislative Decree Ukraine: until March 31, 2023, the program envisaged the continuous operation of both plants, while from April 1, 2023 and until September 30, 2023, only their continuous availability is envisaged. If the fixed costs incurred during the maximization period are not covered by market revenues, the operator may submit an application to ARERA for the reimbursement of these charges (net of the remuneration and amortization of the capital invested in the plant prior to the start of the maximization procedure).

Brindisi: forward procurement of resources for voltage regulation

Pursuant to Resolution 675/2018/R/eel and the subsequent tender procedure initiated by Terna S.p.A., A2A Energiefuture S.p.A.'s Brindisi plant was awarded a ten-year contract for the supply of reactive energy equal to 286 MVAr at a weighted average price of 28,098 €/MVAr/year. The total for the first half of 2023 amount is approximately 5.8 million euro.

² CDP: Capacity Available in Probability.

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Gas Storage and Regasification

The MASE Ministerial Decree of March 31, 2023 and ARERA Resolution 150/2023/R/gas defined the criteria for conducting procedures for the allocation of storage capacity for the year 2023-2024. In light of the new market context and the level of filling of the storages, the provision of non-zero reserve prices was reinstated, confirming instead the indication for ARERA to establish modalities to favor the maintenance of gas in storage and the possibility for storage companies to allow counter-flow injections during the supply period.

In the auctions called by Stogit S.p.A. at the

beginning of April, A2A S.p.A. conferred 480 million Scm of storage capacity (of which 455 million Scm of peak modulation and 25 million Scm of uniform modulation) in addition to the 40 million Scm in storage at March 31, 2023.

In the context of the renewed importance of regasification infrastructures to ensure the security of the gas system, in the first half of 2023, the A2A Group was awarded two long-term contracts for regasification capacity amounting to 200 million Scm/year for 10 years (OLT) and 210 million Scm/year for three years (FSRU Piombino).

Incentives for production from renewable sources: state of the art

With regard to the incentivization of the production of electricity from renewable sources, in the first half of 2023, the auctions continued for the allocation of the incentive tariffs provided for by the Ministerial Decree of July 4, 2019 (to date the only support mechanism provided for), the duration of which was extended by Legislative Decree 199/2021 until the incentive power quotas were exhausted.

The following are expected in the coming months: a new Ministerial Decree on incentives for electrical renewables, which will introduce some changes to the methods for recognizing incentives in line with the provisions of Legislative Decree 199/2021, as well as the Ministerial Decree that will identify the criteria for the identification, by the Regions, of areas suitable

for the construction of renewable energy plants. As regards the A2A Group, at June 30, 2023, the incentives paid by the GSE to the A2A Group's plants powered by renewable sources amounted to 19 million euro

millions of euro	
Feed-in tariff	-
TO and RID	2.7
Energy account (FV)	16.3

19.0

GSE incentive type

Total

Market Business Unit

Removal of the electricity greater protection service for micro enterprises

Similarly to what has been provided for small electricity businesses³, Resolution 208/2022/R/eel defined the rules for the assignment through tender of the Gradual Protection Service (STG) of electricity micro-companies with power up to 15 kW without a supplier on the free market (about 2 million POD for about 5 TWh/year of consumption). The tender procedures organized by Acquirente Unico S.p.A. saw the assignment of 12 customer lots for the period from April 1, 2023 to March 31, 2027, which were awarded on the basis of the lowest price offered,

expressed in €/POD/year, to cover the marketing and imbalance costs not already recognized by ARERA.

A2A Energia S.p.A. won the maximum ceiling of the areas that could be awarded (4 lots), equal to 35% of the total volumes, i.e. about 500,000 POD for about 1.2 TWh/year of consumption. At the end of the STG supply period, customers who have not yet chosen an offer on the free market may be re-supplied by A2A Energia S.p.A. with the application of the most convenient offer, as established by MD MiTE no. 325 of August 31, 2022.

Removal of the gas protection service and definition of vulnerable gas customers

Resolutions 100/2023/R/com and 102/2023/R/gas defined the accompanying path for customers still under gas protection until the termination of the service scheduled for January 1, 2024, as well as identified vulnerable customers4 who will be entitled to dedicated supply conditions.

Customers still served under gas protection regime will receive in September 2023 a communication from their seller, differentiated based on whether or not they meet the vulnerability requirement, informing them that the service is no longer provided and that they can switch to the free market by signing a new offer. In the absence of a choice, at the end of the protection service, the vulnerable customer will be supplied by the current seller at a tariff defined by ARERA (former gas protection tariff) while the non-vulnerable customer will be charged a variable PLACET offer, where the seller can only define the annual fixed component (sales charge).

Vendor list in the electrical sector

Ministerial Decree MiTE no. 164 of August 25, 2022 established the Vendors List in the electricity sector, defining the requirements (technical, financial and honorableness) for registration, permanence and exclusion from the List. Temporarily, all companies registered as commercial

counterparties of end customers in the Integrated Information System (IIS) were automatically accredited in the List, except for the need to formalize the registration by submitting a selfdeclaration by April 16, 2023. All authorized Group companies have completed the registration process.

³ Pursuant to Resolution ARERA 491/2020/R/eel.

⁴ LD no. 115 of August 9, 2022 (LD Aiuti bis) defines vulnerable customers as civil customers:

⁻ in an economically disadvantaged position;

whose utilities are located in emergency housing facilities following calamitous events:

⁻ over 75 years of age

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Components to cover marketing costs on the electricity protected market, on the free electricity market and on gas protection

Resolutions no. 136/2023/R/eel and no. 137/2023/R/gas reduced the RCV/PCV and QVD components, respectively, for the period from April 1, 2023 to March 31, 2024.

PCV €/POD/year	APRIL 1, 2022 MARCH 31, 2023	APRIL 1, 2023 MARCH 31, 2024
	Single national	Single national
Domestic POD	69.88	69.17
Other uses POD*	113.09	-

^(*) From April 1, 2023, these types of end customers are no longer entitled to the greater protection service

RCVsm €/POD/year*		APRIL 1, 2022 MARCH 31, 2023		APRIL 1, 2022 MARCH 31, 2023	
	C-North	C-South	C-North	C-South	
Domestic POD	30.14	34.06	27.04	30.71	
Other uses POD	48.74	71.40	-	-	
Domestic POD	44.73	48.31	39.63	42.92	
Other uses POD	69.72	129.29	-	-	
Domestic POD	24.11	27.25	21.63	24.57	
Other uses POD	38.99	57.12	-	-	

(*) remuneration for marketing the sale of minor separate companies (\leq 10 MIO POD)

QVD €/PDR/year		1° APRILE 2022 31 MARZO 2023		IL 1, 2022 H 31, 2023
	€/PDR/year	c€/cm	€/PDR/year	c€/cm
Domestic PDR	67.32	0.7946	63.36	0.7946
PDR condominium home use <200,000	88.41	0.7946	83.2	0.7946

The estimated impact for the A2A Group compared to the previous update is approximately -3.4 million euro.

Interventions to support flooded areas

Resolution no. 267/2023/R/com implemented the provisions of Italian LD no. 61 of June 1, 2023 (LD Alluvione) in favor of the populations affected by the exceptional weather events that occurred in some areas of central and northern Italy. The measure suspends, from May 1 to August 31, 2023, the payments of bills issued or to be issued for the supply of electricity, gas, including gas other than natural gas distributed through canalized networks, as well as for users of the integrated water service

and the integrated municipal waste management service located in the municipalities or fractions of municipalities listed in Annex 1 to DL Alluvione.

For the beneficiaries of the suspensions, the discipline of arrears cannot be applied, even in the case of arrears occurring before May 1, 2023. The seller shall, at the end of the suspension period, install the amounts of the invoices for which the suspension has been recognized for a period of 12 months.

Award of the safeguard service for the two-year period 2023-2024

A2A Energia S.p.A. was also awarded the safeguard service for the two-year period 2023-2024, and was awarded the following lots: lot 1 (Liguria, Piedmont, Valle d'Aosta, Trentino-Alto Adige), lot 2 (Lombardy), lot 3 (Veneto, Emilia-Romagna,

Friuli-Venezia-Giulia) and lot 4 (Marche, Tuscany and Sardinia) for approximately 33,700 POD and 2.15 TWh. The award value (parameter Ω) was equal to: 29.97 €/MWh for lot 1, 15.90 €/MWh for lot 2, 24.97 €/MWh for lot 3 and 21.95 €/MWh for lot 4.

Request for information and subsequent initiation of preliminary investigation proceedings (with the adoption of a precautionary measure at the same time) with a further request for information from the AGCM with respect to A2A Energia S.p.A. as to the implementation of the provisions of article 3 of LD Aiuti bis (PS12470)

On October 18, 2022, A2A Energia S.p.A. received a request for information from the AGCM (PS12455) aimed at ascertaining conduct that did not comply with the provisions of article 3 of LD Aiuti bis prohibiting unilateral changes to the general terms and conditions of contracts relating to price definition. The request followed four preliminary proceedings initiated with as many precautionary measures against other sales companies.

Subsequently, on December 13, 2022, a preliminary investigation proceeding (PS12470) was commenced against A2A Energia S.p.A., with the simultaneous adoption of precautionary measures, for alleged changes in the price of electricity and gas supply. The precautionary measure was fully revoked on December 30, 2022, due to the principles expressed by the order of the Council of State of December 22 (granting the request for suspension submitted by Iren Mercato S.p.A. in relation to its own proceedings) as well as to what emerged

from the procedural memorandum and the information and documentation provided in response to the request of October

While the preliminary investigation proceedings remain open, in January, A2A Energia responded to the Authority's request for information and formulated a proposal for commitments in order to reach a rapid conclusion to the proceedings and further increase the degree of information transparency for customers.

In May, the Authority extended the deadline for the duration of the proceedings to July 10 (and subsequently to July 25) and set May 22 as the closing date for the preliminary investigation phase. A2A Energia S.p.A. subsequently filed a request for confidentiality for the documentation acquired and received the notice of the deadline for the closure of the preliminary investigation phase, acknowledging that the objections contested in the initiating measure had not been repeated.

Waste Business Unit

Waste Pricing Method for the second regulatory period 2022-2025 (MTR-2)

ARERA Resolution 363/2021/R/rif defined the criteria for recognition of the efficient operating costs for the regulatory period 2022-2025 (MTR-2), confirming the general approach that distinguished the first method and establishing the rules for defining the access tariffs to the undifferentiated waste and MSWOF treatment plants. Resolution 68/2022/R/rif updated the WACC for the period 2022-2025, setting it at 5.6% for the municipal hygiene service and 6% for the treatment service (applied to 'minimum' plants).

With reference to the urban hygiene service, in the first half of 2023, the process continued for the A2A Group companies to finalize the 2022-2025 "raw PEF", which were subsequently submitted for approval by the entities territorially competent (ETC) and validation by the Authority

The table below shows the 2022-2025 approvals by ARERA

		PEF ta	ariff revenue	(millions of	nillions of euro)		
ARERA Resolution	Municipality	Operator	2022	2023	2024	2025	
544/2022/R/rif	Milan	Amsa S.p.A.	303.3	306.1	306.1	306.1	
731/2022/R/rif	Brescia	Aprica S.p.A.	35.3	35.9	36.7	37.2	
61/2023/R/rif	Bergamo	Aprica S.p.A.	20.1	20.5	20.1	20.3	
116/2023/R/rif	Cremona	Linea Gestioni S.r.l.	10.6	10.7	10.9	11.1	
131/2023/R/rif	Como	Aprica S.p.A.	14.2	14.4	14.7	14.9	

In most cases, in continuity with 2020-2021 and in the presence of assignments obtained after tenders, ETC is expected to avail itself of the option of preserving any efficiencies already achieved and applying the value envisaged by the previous contracts (if lower than the maximum value of the MTR-2) subject to compliance with the economic-financial balance of operations.

With reference to treatment, ARERA introduced an asymmetric tariff regulation, to be determined taking into account regional governance, the degree of integration of the operator and the location of the plant with respect to the waste hierarchy. In particular, the Authority has established, as a prerequisite for the identification of regulated tariff plants ("minimum" plants) the presence of a rigid market with a strong and stable excess of demand, in addition to the following alternative conditions: i) having committed capacity for flows guaranteed by sector scheduling; ii) having been identified as "minimum" during scheduling by the competent parties. The identification of regulated plants must be carried out as part of the ETC planning activities (in Lombardy by the Region). For plants that are not subject to tariff regulation, so-called "additional", on the other hand, publication of the "main criteria on which the fees are

based" is envisaged on the Manager's website.

The <u>Region of Lombardy</u> has declared all treatment plants for undifferentiated waste and MSWOF as "additional" in its Decision no. 5777/2021.

The <u>Piedmont Region</u> has identified the Villafalletto landfill and, consequently, also the adjacent Villafalletto treatment plant of A2A Ambiente S.p.A. among the "minimum" plants for closing the cycle, defining the "minimum" flows entering the aforementioned plants for the years 2022-2023. With Executive Decree no. 694/2022, the Piedmont Region approved the 2022-2025 PEF as perMTR-2 for the Villafalletto plant, managed by A2A Ambiente S.p.A..

The <u>Campania Region</u> with Government Resolution no. 190/2022 identified the Acerra waste-to-energy plant and the Caivano mechanical biological treatment plant as "minimum" cycle closure plants and "intermediate" plants, from which flows indicated as entering "minimum" cycle closure plants originate. By way of Executive Decree no. 235/2022, the Campania Region approved the 2022-2025 PEF for the Acerra plant, which is managed by A2A Ambiente S.p.A. by means of a service contract "in the form of management operation".

Recent administrative rulings on "minimum" plants: MSWOF and Undifferentiated

In ruling no. 17/2023, the Emilia-Romagna Regional Administrative Court (TAR) declared the following unlawful:

 the Emilia-Romagna resolution (no. 801 of May 23, 2022) that identified the "minimum" plants for composting/anaerobic digestion; Evolution of the regulation and impacts on the Business Units of the A2A Group

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The main reason for this is that the treatment of the organic fraction is included in the Consolidated Environmental Act as a market activity, with no territorial restrictions on its movement, and that therefore the awarding of treatment activities for this fraction must take place through tender procedures.

The Lombardy Regional Administrative Court, with rulings nos. 486/2023, 501/2023 and 578/2023, annulled Resolution 363/2021/R/rif (MTR-2) in the part relating to the definition of gate tariffs as well as the consequent acts of the Apulia Region

and AGER Apulia. For the administrative court, the regulator would have gone beyond the competences attributed to it by the state legislator, defining organic fraction treatment plants, incinerators with/without energy recovery and landfills as "minimum" plants and asking the regions to identify them in their territory. ARERA appealed the rulings to the Council of State, pointing out that the identification of "minimum" plants is expressly provided for by the PNGR among the criteria of regional planning, according to a coordinated action between institutions. The hearing at the Council of State is scheduled for November.

Quality regulation of the municipal waste management service (2023-2025)

Resolution 15/2022/R/rif approved the "Consolidated text for the regulation of the quality of the municipal waste management service" (TQRIF), providing from January 1, 2023 for a set of minimum and homogeneous contractual and technical quality obligations for all managements (regardless of how the service is entrusted), alongside quality indicators and related general standards differentiated by regulatory schemes, identified in relation to the actual starting quality level, determined by the ETC on the basis of the services provided for in the Service Contract and/or in the Quality Charter in force.

When approving the 2022-2025 multi-annual PEF, ETCs are required to identify the positioning of the individual management in the "Matrix of reference schemes", determining the regulatory scheme and the related obligations applicable to the management, to be valued in the definition of the forecast costs associated with compliance with the quality obligations provided in the PEF 2022-2025. Furthermore, ETCs may, on the basis of a justified proposal by the managers, define any qualitative standards that improve or go beyond those laid down in the TQRIF.

Provision of obligations and control instruments for technical quality (continuity, regularity and security of the service)

		Technical quality = NO	Technical quality = YES
Provision of contract quality obligations	Contract quality = NO	SCHEME I Minimum quality level	SCHEME III Intermediate quality level
Provision contract qui obligatior	Contract quality = YES	SCHEME II Intermediate quality level	SCHEME IV Advanced quality level

As regards 2022, the Municipality of Milan, as ETC, has positioned AMSA S.p.A. within Scheme I. It must be said that the ETC, from a prudential point of view, have placed most of the Municipalities managed by Group companies within Scheme I.

Resolution 15/2022/R/rif also introduces the obligation to adopt a single "Quality Charter of the integrated urban waste management service" in compliance with the provisions of the TQRIF: to date, most of the urban hygiene companies have finalized with their ETC the approval process for the new Service

Charter, after sharing it with the Consumer Associations.

Finally, operators are required to report, through the preparation of an electronic performance register, and to communicate data on quality indicators to the Authority and the ETC (obligation valid for assignments falling under Schemes II-III-IV), as well as to publish on their website a series of information (including the positioning of management in the matrix and the quality standards within their competence) that the Authority will consider publishing, with a view to sunshine regulation.

Biomethane production incentive framework

The MiTE Decree of September 15, 2022 introduced a new incentive mechanism for the production of biomethane to be used not only in transport but also in other uses and which will cover the period 2022-2024. The new instrument is characterized by incentivizable quotas and competitive procedures, and the subject is a contract for two-way differences that considers the difference between the tariff resulting as outcome of tender procedures and the average monthly price of methane (including the value of the guarantee of origin). Projects will also receive a capital grant of up to 40% of the costs, using PNRR funds.

A2A Ambiente S.p.A. obtained the pre-qualification from the GSE for 4 biomethane production plants from organic waste that will be incentivized with the CIC mechanism provided for by the previous MiSE MD March 2, 2018. The plants of Lacchiarella and Cavaglia came into operation in 2022, while those of Corteolona and Castelleone benefit from the extension of the Ministerial Decree of August 5, 2022 and will come into operation during 2023.

Resolution 220/2023/R/gas introduced a number of changes to the procedure for connecting biomethane plants to the natural gas grid, with the aim of simplifying and accelerating the

connection process and, at the same time, optimizing the cost for the system by entrusting Snam S.p.A.

with the task of evaluating the different connection solutions.

Maximizing non-gas thermoelectric production

Agripower S.p.A.'s biomass plant in Sant'Agata di Puglia was included in the program to maximize non-gas thermoelectric production pursuant to LD Ukraine. This plant is scheduled for continuous operation from April 1, 2023 to September 30, 2023. If the fixed costs incurred during the maximization period are not covered by market revenues, the operator may submit an application to ARERA for the reimbursement (net of the remuneration and amortization of the capital invested in the plant prior to the start of the maximization procedure).

Legislative Decree Government no. 36 of March 31, 2023 - Public Contracts Code in implementation of article 1 of Law no. 78 of June 21, 2022, delegating the Government in the field of public contracts

The legislative decree, in force since April 1, 2023 and effective from July 1, 2023, introduces the new procurement code by replacing the current Legislative Decree 50/2016. The new code:

- is characterized by the push for digitalization of the procurement contracts lifecycle;
- stipulates that the EU thresholds, i.e. the value above which Community attention and the related "Europeanisation" of calls for tenders are triggered, are periodically re-determined by a measure of the EU Commission;
- for tenders below the "Community threshold" the procedures available to contracting authorities are direct awarding and the negotiated procedure after consultation of economic operators;
- defines the contents of the two design levels, namely the technical-economic feasibility project and the executive project;
- states that minimum environmental criteria, among other things, must be indicated in calls for tenders.

Directive (EU) 2023/959 of the European Parliament and of the Council of May 10, 2023 amending Directive 2003/87/EC establishing a scheme for greenhouse gas emission allowance trading within the Union and Decision (EU) 2015/1814 on the establishment and operation of a market stabilization reserve in the Union system for greenhouse gas emission allowance trading

The Directive amends Directive 2003/87 by providing:

- an increase in greenhouse gas emission reductions;
- the reporting and monitoring of emissions, as of January 1, 2024, of municipal waste incineration plants with a total rated thermal input exceeding 20 MW;
- the lowering of the hydrogen and synthesis gas capacity limit for the application of the ETS, now 5 tons per day (previously 25t);
- a new chapter regulating further activities, including the release of fuels for consumption in the residential, commercial and transport sectors.

The act sets two deadlines for transposition:

- December 31, 2023;
- June 30, 2024 only for the regulation of Chapter IVbis with the exception of the reporting of historical emissions by 2025 (art. 30-septies, paragraph 4), which must be transposed by the earliest indicated deadline.

Ministerial Decree no. 59 of April 4, 2023 - Regulations for the waste traceability system and the national electronic waste traceability register pursuant to article 188-bis of Legislative Decree no. 152 of April 3, 2006

This ministerial decree introduced the new waste traceability system, the RENTRI (National Eletronic Waste Traceability Register). The measure, in particular, regulates:

- the models and formats of the chronological waste register and the identification form, also indicating how they are to be filled in, stamped and kept;
- the modalities of registration with RENTRI and related fulfilments, by those who are obliged or those who voluntarily join it;

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- the operation of RENTRI including the way in which data is transmitted;
- how RENTRI data will be shared with the Higher Institute for Environmental Research (Ispra) for inclusion in the Waste
- the modalities of coordination between Mud and the fulfilments transmitted to RENTRI.

The date of registration depends on the activity carried out and the number of employees of each individual company. In the most restrictive case, registration will be required from December 15, 2024 and within sixty days thereafter. Also from the same date, the new C/S and FIR register models will come into force.

In relation to the operational modalities of RENTRI, future decrees are planned to regulate:

- the operational modalities to ensure the transmission of data to RENTRI and its functioning;
- instructions for operators to access and register with RENTRI;
- IT requirements to ensure the interoperability of RENTRI with the systems adopted by operators;
- how to fill in the FIR and the C/S Register;
- the requirements for consultation services by the administrations concerned;
- manuals and concise guides to support operators and users;
- how the support tools work.

Smart Infrastructures Business Unit

2022 final and 2023 provisional reference tariffs for the distribution and metering of natural gas

Resolution 207/2023/R/gas approved the 2023 provisional reference tariffs for natural gas distribution and metering activities, while Resolution

156/2023/R/gas approved the 2022 final reference tariffs. In both cases, the WACC considered is 5.6%.

Value of RAB GAS underlying provisional reference tariffs 2023 millions of euro	Unareti	ASVT	LD Reti	Reti Più	Acinque Group (1)	Total
Centralised capital	46	1	10	12	11	80
RAB Distribution RAB	835	12	162	140	146	1,295
Measurement RAB	113	2	22	35	27	199
Total	994	15	194	187	184	1,574

⁽¹⁾ Includes Lereti S.p.A. and Reti Valtellina Valchiavenna S.r.l.. The RAB values of Lereti S.p.A. are expressed net of the 4 locations (Varese, Brizio, Casciago and Lozza) where the assets are owned by the municipalities.

With reference to Unareti S.p.A., the provisional 2023 admissible revenues are affected by the transition to the management on ATEM basis of the Milan Area 15

and the consequent application of the specific tariff criteria envisaged in such cases.

Tariff regulation for the natural gas distribution and metering service 2020-2025

Resolution 570/2019/R/gas, which approved the RTDG 2020-2025, was challenged by Unareti S.p.A.: as part of this appeal, the rulings of three appeals brought by as many operators of different sizes have already been published, which partially upheld their grievances. The Authority challenged these rulings before the Council of State.

At the same time, Resolution no. 737/2022/R/gas provided for the infra-period update 2023 - 2025, limiting itself to operationally outlining certain

measures already envisaged. The main novelty is the mitigation mechanism of the negative impacts on the parametric allowed revenues to cover distribution operating costs resulting from the closure of gas PdR as a consequence of the increasing electrification of consumption. This mechanism, to be managed within the framework of equalization from 2023 revenues, is based on trigger logics to be activated when certain conditions occur⁶.

Reform of the regulation of the natural gas metering service

Resolution 269/2022/R/gas reformed the regulation of the natural gas metering service by providing: (i) a fixed time limit (90 days) beyond which the gas smart meter installed is considered to be in service (i.e. remotely-read and remote-controlled) and, therefore, (ii) the applicability to these smart meters of the monthly reading obligations, (iii) the sending of measurement data to the IIS by the 7th day of the month (iv) an articulated system of indemnifications in favor of both end customers and distribution users and (v) mechanisms for mitigating

the burden on distributors for the recognition of such indemnifications aimed at taking into account the actual technical limitations of the remote reading and management systems used.

The provisions came into force partly in October 2022 (new compensation mechanisms for distribution users) and partly in April 2023 (commissioning, frequency of metering data collection, making them available to the IIS and compensation to end customers).

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⁵ The main differences with respect to the tariff rules applicable to locations managed on a municipal basis are (i) the increase in the useful life of distribution assets and (ii) the reduction to zero of the X-Factor for 2 annual updates of the parametric unit fee to cover operating costs.

⁶ See Resolution 737/2022/R/Gas, Annex A (RTDG), art. 45.2.

Revenues allowed for the natural gas transport and metering service 2023-2024

Resolution no. 234/2023/R/gas approved the tariff fees for natural gas transportation and metering activities for 2024 and the reference revenues for calculating them, while Resolution no. 233/2022/R/gas approved the allowed revenues for 2023. It should be noted that, under the RTTG 2024-2027 approved

by Resolution 139/2023/R/gas, the allowed revenues may differ from the reference revenues for the calculation of tariff fees as a result of the application of the ROSS (Regulation by Objectives of Spending and Service) regulatory criteria specific to the activity under consideration, which are currently not yet defined.

RAB value of Retragas S.r.l. underlying the definitive 2023 tariffs and the provisional 2024 tariffs millions of euro	Tariff 2024	Tariff 2023
Transport RAB	54.3	52.4
Measurement RAB	1.7	1.6
Total RAB	56.0	54.0

The 2024 reference revenues that have already been approved may be subject to change due to the possible updating of the 2024 WACC and are affected, as are the final 2023 allowed revenues, by the exclusion from the recognized capital of the network segment "S05 - ValStaffora" reclassified as a distribution network with effect from January 1, 2023 by means

of the MASE Directorial Decree of May 25, 2023 as well as by the comparison process with Gasdotti Alpini S.r.l. and the Autonomous Province of Trento aimed at coordinating the infrastructural developments proposed by the parties in the Trentino area in partial overlap.

2022 final and 2023 provisional reference tariffs for the distribution and metering of electricity

Resolution 156/2023/R/eel approved the 2022 final reference tariffs for electricity distribution and metering service for companies serving more than 25,000 PODs, while Resolution 206/2023/R/eel approved the 2023 provisional reference tariffs. In both cases, the WACC considered is 5.2%.

RAB ELECTRICITY value underlying 2023 provisional tariffs millions of euro	Unareti	LD Reti	RetiPiù	Reti Valtellina Valchiavenna	Total
Distribution RAB	808	57	25	17	907
Measurement RAB	102	2	1	2	107
Total	910	59	26	19	1,014

The 2023 provisional tariffs are adversely affected by the time period considered by the regulation for the inflation rate used to update operating costs and the rate of change of the gross fixed capital formation deflator used for the revaluation of capital recognized for tariff purposes, which does not coincide with the calendar year.

Electricity quality: resilience plans for the electricity grid

Title 10 of the TIQE defines, for all major distribution companies, the obligations regarding the resilience of the electricity grid, the content and timing of the implementation and periodic publication of the plan of interventions as well as the incentive mechanisms (rewards/penalties), the outcomes of which are determined by December 31, of each year from 2020 to 2025 with reference to eligible interventions with an effective completion date in the previous year.

Therefore, by June 30, 2023, Unareti S.p.A. sent the final statement of the progress of the interventions already admitted to the incentive mechanism for increasing resilience⁷, for both the interventions concluded in 2022 and for those being realized. LD Reti S.r.l. and RetiPiù S.r.l. opted for deferred adhesion to the bonus/penalty mechanism, which therefore took effect from 2022.

Resolution 69/2023/R/eel released the list of new interventions for increasing network resilience for the 2022-2024 Plans eligible for the bonus and/or penalty

Evolution of the regulation and impacts on the Business Units of the **A2A Group**

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Remediation of the old riser columns of the electricity distribution network in condominiums

Resolution 467/2019/R/eel defined an experimental regulation for the period from January 1, 2020 to June 30, 2023 concerning the census and modernization, with possible centralization of meters, of obsolete risers of the electricity distribution

network in condominiums. Unareti S.p.A., following the completion of the census with on-site inspections of 11,268 condominiums, was notified by ARERA in June 2023 of the recognition of an amount of 225,360 euro

2G Smart Metering Systems for the metering of low voltage electrical energy and approval of PMS2 by Unareti S.p.A.

The Authority, within the regulatory framework applicable to larger distributors, with Resolution 278/2020/R/eel approved Unareti S.p.A.'s 2G smart metering system (PMS2) commissioning plan. This Plan provides for the replacement of around 1.3 million meters with a massive phase planned for the period 2020-2024 currently underway (the Brescia area was completed in 2021 and installation is now concerning the Milan area).

Following the last reporting of the investments made (year 2021), which amounted to approximately 19 million euro, the application of the planned regulatory mechanisms (IQI Matrix) generated a net premium of approximately 0.15 million euro. The progress of the plan is substantially in line with the forecasts, despite the difficulties caused by the so-called semiconductor crisis and the consequent impact on the procurement of meters.

Tariff regulation of withdrawals and injections of reactive energy

Resolution 568/2019/R/eel modified the regulation of reactive energy flows on the grids, defining in particular, minimum levels of the power factor have been defined for both withdrawals and reactive inputs, in excess of which penalties calculated on the basis of specific unit fees must be paid, to be applied to both HV and HHV end customers and to distribution companies directly connected to the National Transmission Grid, and to MV end customers and LV non-domestic customers with available power greater than 16.5 KW, and to exchange points between MV and LV distribution networks.

Resolution 232/2022/R/eel postponed to April 1, 2023 of the application of the tariff fees for reactive energy fed into the F3 band for non-domestic LV end customers with power greater than 16.5 kW and for non-domestic MV end customers, as well as for interconnections between MV and LV networks. The subsequent Resolution 712/2022/R/eel introduced reactive energy feed-in tariffs for end customers and interconnection points between HV and HHV networks as of April 1, 2023. Finally, provision has been made for temporary derogations.

Instruments to protect distributors' credit: general system overheads and network overheads

Resolution 119/2022/R/eel established a mechanism in favor of electricity distributors aimed at guaranteeing, under certain conditions, the reinstatement of credits not otherwise recoverable relating to both general system charges and network charges. This mechanism also admits credits relating to transport contracts that were not terminated due to the regulatory provisions applicable in cases of corporate crisis and, with reference to network

charges, an exemption and a minimum threshold to the recognizable amounts is provided for.

Some distributors of the A2A Group participated in the 2023 session of the mechanism and will have to return to CSEA a total of approximately 0.3 million euro, equal to the net balance of new eligible credits and the amounts already collected from defaulting distribution users and previously recognized under the mechanism.

Development of electricity distribution networks: access to PNRR **funds**

Ministerial Decrees no. 146 of April 6, 2022 (smart grid) and no. 150 of April 7, 2022 (resilience) defined the criteria for the allocation of the PNRR resources. With reference to the projects submitted by the companies of the A2A Group:

- Unareti S.p.A. was the winner in the 'Smart Grid Strengthening' area with two projects (upgrading of Primary Station, for 141.1 million euro and installation of STATCOM devices for reactive energy compensation, for 17.9 million euro):
- Reti Valtellina e Valchiavenna S.r.l. was the winner

in the area of Increasing the resilience of the electricity grid with a project for the expansion of medium-voltage electricity

distribution plants related to the Milan-Cortina 2026 Olympic Games (1.46 million euro).

Decision of the complaint Unareti S.p.A. - Eni Plenitude S.p.A. Benefit Company

Resolution 254/2023/R/eel has decided on the complaint filed by Eni Plenitude S.p.A. Benefit Company against Unareti S.p.A. with which the complainant complained about the application of the fixed-rate contribution pursuant to art. 28 of the Testo Integrato Connessioni (Connections Integrated Text - TIC) in the event of a change in the end customer's residence data. Unareti S.p.A. has always considered this contribution to be part of the

"other contractual variations" referred to in the aforementioned article and for which it is applicable.

The Authority in its decision took a different view and upheld the complaint, ordering Unareti S.p.A. to reverse the contributions previously charged from the invoices issued. The company is considering a possible appeal of the measure.

Activities of ARERA in the regulation and control of the Integrated Water Service (SII)

Approval of the Water Tariff Method for the two-year period 2022-2023 (MTI-3 updated)

Resolution 580/2019/R/idr approved the Water Tariff Method (MTI-3) for the third regulatory period (2020-2023), defining the rules for calculating the costs eligible for recognition, as well as the limits to the applicable tariff increases. In particular, the component covering the cost of financial and tax charges drops to 4.8% (vs. 5.24% previously).

Below is the summary of the 2022-2023 tariff updates:

- A2A Ciclo Idrico S.p.A.: for the Brescia area, a tariff change of 0.0% for 2022 and +1.02% for 2023 was approved (EGA Board Resolution no. 11/2023);
- Azienda Servizi Valtrompia S.p.A. (ASVT S.p.A.): the recognized costs will be included in the 2022-2023 tariff proposal of Acque Bresciane S.r.l., single Area manager;
- Lereti S.p.A.: as resolved by the competent EGAs, will apply the following tariff increases:
- Varese Area: +5.5% for 2022 and +4.93% for 2023 (Res. EGA BoD 78/2022);
- Como Area: 8.45% for 2022 and 8.45% for 2023 (Res. EGA BoD 3/2023).

By Resolution 52 of December 21, 2021, the Como EGA recognized Lereti S.p.A. 15.3 million euro for past items relating to the 2010-2011 period to cover the non-recognition of tariffs for part of the infrastructures built by the company prior to 2012, not accepting the same request for recognition for the 2001-2009 period⁸. With a subsequent resolution of July 5, 2022, the EGA Board of Directors adopted the Guidelines outlining the billing methods for the past items that will be charged over 5 years, starting from 2022, in order to graduate their impact on users (to be concluded by 2026, the date of expiry of the service concession with the Municipality of Como).

ARERA Resolution 64/2023/R/idr initiated the procedure for the definition of the water tariff method for the period 2024-2027 (MTI-4) and proposed an average sector cost for electricity for 2022 equal to 0.2855 €/kWh, considering guaranteeing full cost recovery also in cases where this benchmark is exceeded.

Transfer of the aggregated and expired management of A2A Ciclo Idrico S.p.A. and ASVT S.p.A. to Acque Bresciane S.r.I.

With Resolutions no. 11/2023 for A2A Ciclo Idrico S.p.A. and no. 17/2022 for ASVT S.p.A., the Brescia EGA, pursuant to ARERA Resolution no. 656/2015/R/idr, concluded the preliminary investigation process concerning the determinations of the RV as of December 31, 2021 of a group of municipalities of the so-called aggregated managements of A2A Ciclo Idrico S.p.A. and the expired managements of ASVT S.p.A., and subsequently forwarded them to ARERA for final approval.

COMPANY	NO. MUNICIPALITIES	RV (millions of euro)
A2A Ciclo Idrico S.p.A.	12 Aggregate Management*	28.1
ASVT S.p.A.	15 Expired Management**	42.2

- * EGA Resolution no. 4 of December 21, 2007 had approved the guidelines that allowed municipalities with economic management to aggregate the SII to the operator operating in the sub-area of reference, i.e. A2A Ciclo Idrico S.D.A..
- ** Concessions also expired after December 31, 2021.

Pursuant to the agreements signed between the parties on April 27, 2023, Acque Bresciane S.r.l. took over ASVT S.p.A. as from June 1, 2023 even if the actual cessation of activities by ASVT S.p.A. will occur on December 31, 2025. On May 31, 2023, ASVT S.p.A. collected 33.8 million euro equal to 80% of the RV plus 4.5 million euro equal to the value of the other components (payables/receivables) as emerging from the balance sheet as at December 31, 2022.

Pursuant to the agreements signed between the parties on April 27, 2023, Acque Bresciane S.r.l. will take over from A2A Ciclo Idrico S.p.A. as of October 1, 2023, even if the actual cessation of activities by A2A Ciclo Idrico S.p.A. will occur on December 31, 2023. On September 27, 2023, Acque Bresciane S.r.l. shall liquidate 80% of the RV plus the value of the other components (payables/receivables) as emerging from the balance sheet as at December 31, 2022.

⁸ The company lodged an appeal with the Lombardy Regional Administrative Court to obtain this second tranche.

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Transfer of the management of the Municipality of Cernobbio by Lereti S.p.A. to Como Acqua S.p.A.

With Resolution no. 73 of December 20, 2022 and pursuant to ARERA Resolution 656/2015/R/idr, the Como EGA concluded the preliminary investigation process concerning the determination of the RV of Cernobbio, quantifying it at 2.4 million euro as of December 31, 2021 and sending it to ARERA for final approval. Pursuant to the agreement signed between the parties, Como Acqua S.p.A. took over from Lereti S.p.A. in the management of the Cernobbio aqueduct service as from January 1, 2023. Lereti S.p.A. collected the RV on February 28, 2023. Following the final approval of the RV and of the adjustments relating to the updatable costs by ARERA, Como Acqua S.p.A. shall pay this value.

Public financing of investments in the SII: Budget Law 2018 and PNRR Funds

Article 1, paragraph 516, of Budget Law 2018 requires, for the purpose of implementing the measures necessary to mitigate the damage related to the drought and to promote the strengthening and adaptation of water infrastructures, with a specific Prime Ministerial Decree adoption of the "National Plan of Action in the Water Sector", divided into

two sections: "aqueducts" section and "reservoirs" section. The measures are reported by the EGA to ARERA and are financed with public resources.

The DPCM of August 1, 2019 bearing the following title "Adoption of the first draft of the National Plan of interventions in the water sector - aqueducts section" approved 26 interventions for a total amount of 80 million euro for the two years 2019 and 2020: among the interventions also included is that relating to the construction of the aqueduct, sewerage and purification network for the Municipality of Calvisano (BS) managed by A2A Ciclo Idrico S.p.A. for an amount equal to 7.6 million euro. In May 2023, the Company collected the last tranche of the loan amounting to 1.1 million euro following the publication of Resolution 188/2023/R/idr authorizing CSEA to disburse the last tranche.

MIMS Ministerial Decree no. 517 of December 16, 2021 allocated PNRR resources to enhance, complete, and carry out extraordinary maintenance of water derivation, storage, and primary water supply infrastructures throughout the country, so as to improve water quality and ensure continuity of supply. Azienda Servizi Valtrompia S.p.A. was awarded 27 million euro out of a total budget of 2 billion euro for a project to build the district aqueduct in the Upper and Middle Trompia Valley.

Activities of ARERA in the regulation and control of the district heating/cooling sector

During the conversion into law of the LD PNRR⁹, an amendment was inserted that modified art. 10, paragraph 17, letter e), of Legislative Decree no. 102/2014, extending ARERA's competences over the district heating sector with the introduction of a cost-reflective regulation of tariffs: letter e) is replaced by the following: "e) ARERA establishes the heat transfer tariffs, so as to harmonize the economic-financial objectives of the entities operating the service with the general objectives of a social nature, environmental protection and efficient use of resources".

The subsequent ARERA Resolution 277/2023/R/tlr initiated the procedure for the adoption of measures concerning the regulation of district heating service tariffs, which is expected to be concluded by September 30.

Below is a brief summary of the current regulatory framework of the sector:

• Resolution 548/2019/R/tlr defined, for the period January 1, 2021 - December 31, 2023, the regulation of the technical quality (RQTT) with reference to the safety and continuity of the service, introducing obligations on emergency response, the management of interruptions (with a specific general quality standard) and dispersions as well as obligations to record information relating to safety and quality for annual communications to ARERA.

- Resolution 478/2020/R/tlr defined the regulation of metering (TIMT) for the period January 1, 2022 -December 31, 2024, introducing service obligations and quality standards for the metering of energy supplied to users by defining minimum reading frequencies, obligations for the communication of readings by Operators, obligation to self-read, the definition of calculation methods for estimating and reconstructing consumption and rules for archiving data.
- Resolution 537/2020/R/tlr extended, from July 1, 2021, also to the district heating sector the system of protections for the handling of complaints and the out-of-court settlement of disputes with end users already in place in the other regulated sectors.
- Annex A of Resolution 463/2021/R/tlr updated for the period January 1, 2022 - December 31, 2025 the regulation regarding connection fees and procedures for exercising the right of withdrawal (TUAR). Annex B to the same Resolution approved the Consolidated Text for the size classification of service operators for the period January 1, 2022 - December 31, 2025 (TUD), defining different obligations based on the size thresholds, which remain unchanged but are determined only by

conventional power.

⁹ LD February 24, 2023, no. 13.

- Resolution 526/2021/R/tlr updated the provisions on commercial quality (RQCT) for the period from January 1, 2022 to December 31, 2025, defining standard levels of compliance with reference to the services to be provided by operators (including timeframes for simple and complex work estimates/execution, reactivation of the supply in the event of suspension due to arrears, deactivation of the supply requested by the user, reasoned responses to complaints and requests for information, etc.).
- Resolution 710/2022/R/tlr establishes the minimum requirements for meters and modifies the perimeter of the reading obligations by including remote meters with proximity reading (so-called walk-by) but postpones the completion of the regulation on the minimum requirements for meters on the basis of a cost-benefit analysis. As part of these analyses, further proposals for action will be considered, including the replacement of existing meters and

- the introduction of mandatory remote management of utility substations.
- GSE Procedures for the qualification of efficient district heating and cooling systems under Legislative Decree 199/2021 in order to define rules and procedures to qualify efficient district heating networks under the provisions of Legislative Decree no. 102/2014.

The MiTE Ministerial Decree of June 30, 2022 defined the criteria for the allocation of PNRR resources for the development of efficient district heating and cooling networks (200 million euro). The proceedings ended on December 23, 2022 with a claim of 567 million euro. A2A Calore e Servizi S.r.l. was awarded a project relating to the district heating network in Bergamo (3.8 million euro), while Acinque Energy Greenway S.r.l. was awarded resources amounting to 11.9 million euro.

Opening of an investigation by the AGCM against A2A S.p.A., Comocalor S.p.A. and Acinque Ambiente S.r.l. for alleged abuse of dominant position in the district heating sector (A565)

On June 13, 2023, the Competition and Market Authority resolved to initiate an investigation procedure against A2A S.p.A. (in its capacity as holding company), Comocalor S.p.A. and Acinque Ambiente S.r.I. for alleged breach of art. 3, par. 1 letter a) of Law 287/90, with particular regard to the abuse of a dominant position in the direct or indirect imposition of

particularly onerous heat sale prices in the district heating sector. Concurrently with the start of the investigation, AGCM officials carried out inspections on June 21 at the offices of A2A S.p.A. and Comocalor S.p.A. with the assistance of the Finance Police.

The A2A Group has a risk assessment and reporting process which is based on the Enterprise Risk Management method of the Committee of Sponsoring Organizations of the Treadway Commission (CoSO report) and best risk management practice and is in compliance with the Corporate Governance Code by Consob, which states: "... Each issuer shall adopt an internal control and risk management system consisting of policies, procedures and organizational structures aimed at identifying, measuring, managing and monitoring the main risks....".

The Group has also adopted a specific procedure that defines in detail the roles, responsibilities and methodologies for the Enterprise Risk Management (ERM) process.

This process requires a risk model to be set up that takes account of the Group's characteristics, its multi-business vocation and the sector to which it belongs. This model is subject to periodic revision consistent with the evolution of the Group, and the context in which it operates. The methodology adopted is characterized by the regular identification of the risks to which the Group is exposed. In this context, an assessment process is carried out which, through the involvement of all its structures, allows the Group to identify the most important risks and establish the relative controls and mitigation plans. At this stage, the involvement of risk owners is essential as responsible for the identification, assessment and update of risk scenarios (specific events in which risk can materialize) related to activities of its competence and Focal Points that facilitate the continuous monitoring of risks, guaranteeing a timely flow of information to Risk Management. This phase is carried out with the support and coordination of the Group Risk Management organizational structure through operating methods that allow clearly identifying risks, the related causes and management methods.

The methodology adopted is modular and leverages on the fine-tuning of the experience gained and methods of analysis used: on the one hand, it aims to develop the risk assessment further with specific reference to the consolidation of the mitigation process and on the other to develop and integrate risk management activities in business processes. This evolution is carried out consistent with the gradual increase in the awareness of management and the business structures about risk management issues, achieved among other things through the use of specific training support provided by Group Risk Management.

The ERM process also supports the ISO 9001 certification on Quality, ISO 14001 on Environment and ISO 45001 on Occupational Health and Safety of Group companies.

Set out below is a description of the main risks and uncertainties to which the Group is exposed.

The geo-political tensions related to the crisis between Russia and Ukraine and the health emergency, having possible repercussions on more than one type of risk, are discussed in this opening section.

Impacts of the Russia-Ukraine conflict

The ongoing conflict between Russia and Ukraine already since 2021 has exacerbated an energy market crisis, linked to the post-pandemic recovery and commodity shortages, leading to an increase in energy commodity prices and their volatility. This has led to a general increase in inflation with particular reference to the prices of oil derivatives and foodstuffs, as well as tensions on financial markets, on the solvency of certain counterparts and the security of the computer infrastructure to address a possible increase in cyber-attacks.

Initiatives taken on the gas supply front, energy-saving policies, and the particularly mild climate in the first months of 2023 have led to significant savings in gas consumption and to a storage situation at filling levels well above estimates and previous years. The first half of 2023 thus witnessed a gradual reduction in the level and volatility of energy commodity prices, which, however, are still at higher values than in the pre-crisis period. The A2A Group maintains a high level of attention in the context of the industrial activity of generating energy vectors and their marketing both through continuous monitoring of the limits of exposure to commodity risk and through the optimization of purchase and sale strategies. The A2A Group has also activated joint analyses with the electricity grid operator to define possible ways to maximise electricity production from fuels other than natural gas, and will ensure to equip itself with suitable gas storage space in accordance with the coverage strategy defined at the national level. With reference to the generalized increase in inflation, the A2A Group is experiencing cost increases in the performance of operating activities (e.g. site costs, costs of waste treatment processes and transport of the waste associated with these processes); it is also noteworthy that some materials are difficult to obtain within the ordinary timeframe. In order to cope with this situation, automatic price list adjustments are being made where possible, stocks of materials that are more difficult to obtain are being increased and the supplier portfolio is being expanded.

Also on the credit front, careful management methods remain in place through a Credit Policy that provides for preliminary checks, insurance coverage, requests for guarantees, waivers as well as the management of payment terms, interest and repayment plans. The critical issues noted with reference to the growth in Net Working Capital and the consequent increase in Net Financial Position have been resolved with reference to the reduction in energy commodity prices and the financial parameters that are affected.

To date, no deterioration related to the increase in credit delinquency has been reported.

With reference to possible tensions on the financial markets, it should be noted that the maintenance of a solid liquidity position for the Group (4.7 billion euro at June 30, 2023), made up of liquid assets (2.4 billion euro at June 30, 2023) and both committed and uncommitted back-up lines (at June 30, 2023 equal to 2.3 billion euro), made it possible to manage the positions on the commodities market and the temporary increases in working capital due to price increases and

10.1 Risks and uncertainties

instalment plans granted to customers. During the first half of the year, A2A successfully placed a bond in the form of a Green Bond for 500 million euro. Lastly, in relation to the high level of alertness for cyber attacks, the Group has activated a channel with the top management of the National Security Agency to exchange information, accelerating the program to secure endpoints with advanced malware protection tools. An assessment was also conducted to determine the degree of vulnerability of A2A's services exposed on the Internet and the degree of exposure to the attack techniques and tactics of criminal groups and hackers.

The repercussions of this context and possible developments were taken into account in the risk assessment both in the identification of specific risk issues and in the increase and evolution of the most impacted risk factors.

Achievement of the objectives defined in the business plan

Reference is made to the risks connected with failure to achieve or partial achievement of the development and profitability objectives outlined in the Business Plan, which could have both an economic and financial impact as a result of lower growth in the Group's margins and a reputational impact as a result of failing to meet the expectations of stakeholders with regard to sustainability commitments.

The recent release of the Business Plan confirms the ambitious growth targets set in previous years, mainly in terms of the circular economy (e.g. recovery of materials and energy, exploitation of heat otherwise dispersed, etc.) and energy transition (support for growth in renewable energy sources, exploitation of the electricity generation of combined cycle plants, increase in the customer base, support for the electrification of consumption). The main risk factors affecting the various areas of development include: possible critical issues related to authorizations and adverse territorial contexts, the presence of major competitors capable of hindering the achievement of market shares in domestic and foreign markets. uncertainties on the legislative and regulatory evolution related to the deregulation of domestic energy markets, and commercial risks related to the targets defined in the Plan adopted to increase the customer base. In addition, the ongoing geopolitical tensions and the concomitant inflationary phase have led to a twofold phenomenon: on the one hand, there are difficulties in the procurement of certain materials that are used both in the ordinary operation of the plants as well as in maintenance, and at the construction sites of the development initiatives: on the other hand, there has been a significant and generalized increase in the prices of materials,

equipment, machinery and supplies. At the same time, the suppliers of these materials require Group companies to adjust their existing contracts with upward revision of the relevant prices.

Lastly, it should be noted that the gradual transfer of the concessions for the integrated water service in the Province of Brescia is proceeding: while on the one hand, the A2A Group companies that provide these services will temporarily continue to operate and manage the plants transferred, on the other, it cannot be ruled out that in the future, organizational, corporate and financial solutions will be adopted that will see the Group once again operating in the abovementioned business area.

To support the realization of development initiatives. mainly organizational measures are highlighted, with corporate structures focused on the analysis of the markets and development areas covered by the Plan, on the management of technical and engineering aspects, on the maintenance of relations based on transparency and collaboration with the territories, bodies and institutions involved, as well as commercial development initiatives that also envisage the use of innovative communication channels and methods. Of note is the ongoing recruitment of professionals with strong scientifictechnological (STEM) skills. To support the path of sustainable growth, training activities are underway and focal points have been identified to support the process of increasing integration of sustainability principles in business processes, contribute to the definition of the objectives of the Sustainability Plan, promote and enhance new sustainability projects and encourage the circulation of information on these issues. On the procurement front, we operate through careful planning of requirements that takes into account the lengthening of acquisition lead times, the contracting of backup suppliers, the increase of inventories of strategic materials when possible and, for certain product categories, an automatic updating of price lists to ISTAT indices.

Rischi normativi e regolatori

The A2A Group operates in sectors that are strongly regulated by the provisions of independent administrative authorities, as well as having to deal with a multiplicity of stakeholders at various institutional levels. Regulation impacts not only on traditional natural monopoly sectors (such as transport energy infrastructure and the integrated water cycle) but also on free market sectors (in terms of market design and user/consumer protection). Since 2018, the Regulatory Authority for Energy Networks and Environment (ARERA) has taken over the regulation and control competences over the integrated waste cycle and recently also over the

setting of heat transfer prices in the district heating sector1.

Considering the contribution of regulated activities to overall margins (which exceeded 40% in 2022), the Group has adopted a policy of monitoring and managing regulatory risk in order to mitigate, as far as possible, its effects through a multi-layered control, which primarily involves collaborative dialogue with institutions (including the most important: ARERA, Autorità Garante della Concorrenza e del Mercato or AGCM, Autorità per le Garanzie nelle Comunicazioni, Autorità di Regolazione dei Trasporti, Ministero dell'Ambiente e della Sicurezza Energetica) and with the sector's technical bodies/entities (Gestore dei Servizi Energetici S.p.A., Gestore dei Mercati Energetici S.p.A., Terna S.p.A. and Snam S.p.A.) as well as active participation in trade associations

To this end, the specific Regulatory Affairs and Competition organizational structure was set up, which works in close liaison with the Business Units and implemented constantly updated monitoring and control tools (including the Regulatory Review produced every six months or the Regulatory Agenda drawn up at the time of the Budget/Plan), in order to consider the potential impacts of the regulation on various companies. The organizational structure also oversees regulatory risk for the Acinque and AEB Groups in order to manage its impact in a coordinated manner.

The main topics involved in current changes in regulations and legislation, with major potential effects on the Group, are as follows:

- the rules governing large-scale diversion of hydroelectric concessions following Law no. 12/2019 which, in article
 11-quater, provided for an overall reorganization of the subject, giving the Regions an increasingly important role (for the Lombardy Region, reference is made to the Regional Law no.
 5/2020 as amended by subsequent Regional Law no. 19/2021);
- the outcome of the appeals filed by some operators and a trade association for the annulment of the Ministerial Decree MiSE of June 28, 2019 and all related acts of ARERA and Terna S.p.A. that implemented the capacity market regulations. These appeals were rejected at the European level and a ruling by the Lombardy Regional Administrative Court is expected in 2023;
- the annual renewal of the essentiality regime with reinstatement of costs for the San Filippo del Mela fuel oil power plant, which does not allow a medium-term vision of the site's future;
- the effects of potential delays related to the entry into operation of the new Monfalcone CCGT selected by Terna S.p.A. in the capacity market auctions held in February 2022 with expected delivery in 2024, even though the power plant is already benefiting from a series of extensions with respect to this deadline;
- tenders concerning the granting of concessions for the gas distribution service;
- the termination of the water service concessions and their transfer for consideration to the Single Area Operator (with

- particular reference in the immediate term to the municipalities that have expired and/or are being managed on a transitional basis by A2A Ciclo Idrico S.p.A. and to the concessions of Azienda Servizi Valtrompia S.p.A. in the province of Brescia);
- the certification of energy savings and the consequent issue of White Certificates by Gestore dei Servizi Energetici S.p.A.;
- the impacts on the development of district heating following the recent start of regulation of heat transfer prices by ARERA;
- possible delays in the start of tenders for the allocation of lots of domestic electricity customers following the termination of price protection schemes, the end date of which has been further extended to January 10, 2024;
- the preliminary investigation PS12470 initiated on December 13, 2022 by the AGCM against A2A Energia S.p.A., with the simultaneous adoption of precautionary measures - shortly thereafter fully revoked, due to alleged changes in the price of electricity and natural gas supply in contrast with art. 3 of the LD Aiuti bis regarding the suspension of the unilateral modification clauses of electricity and gas contracts;
- the preliminary investigation procedure A565 initiated by the AGCM on June 13, 2023 against A2A S.p.A. (in its capacity as holding company), Comocalor S.p.A. and Acinque Ambiente S.r.l. for alleged breach of art. 3, par. 1 letter a) of Law 287/90, with particular regard to the abuse of a dominant position in the direct or indirect imposition of particularly onerous heat sale prices in the district heating sector.

Finally, with regard to the mechanisms for extracting the alleged 'extra profits' to be borne by energy operators activated by the Government in the course of 2022 in order to find resources to cover the many measures introduced to protect end customers in order to tackle the 'high energy price', it should be noted that with reference to the interventions on the wholesale electricity market on June 30, 2023, the effects of the following provisions have ceased:

- art. 15 bis of LD no. 4 of January 27, 2022, converted into Law no. 25 of March 28, 2022 (LD Sostegni ter), which had provided for a two-way restitution mechanism on the price of electricity fed in by certain types of renewable plants (including also existing hydroelectric);
- Budget Law 2023 which, implementing EU Regulation 2022/1854, had provided for the application of a cap of 180
 €/MWh on market revenues obtained from the production of electricity from renewable energy sources not falling within the scope of Article 15-bis of LD Sostegni ter and from additional plants fuelled by non-renewable sources (including waste treatment plants).

During the conversion into law of the LD February 24, 2023, no. 13 (LD PNRR), an amendment was inserted that modified art. 10, paragraph 17, letter e), of Legislative Decree no. 102/2014, extending ARERA's competences over the district heating sector with the introduction of a cost-reflective regulation of service tariffs: letter e) is replaced by the following "e) ARERA establishes the heat transfer tariffs, so as to harmonize the economic-financial objectives of the entities operating the service with the general objectives of a social nature, environmental protection and efficient use of resources".

The subsequent ARERA Resolution 277/2023/R/Itr initiated the procedure for the adoption of measures concerning the regulation of district heating service tariffs, which is expected to be concluded by September 30, 2023.

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Risks and uncertainties

10.1 Risks and uncertainties

In addition, given the slow decline in commodity prices as well as the filling levels of gas storages, it does not seem likely that any taxes and/or solidarity contributions on the extra profits made by energy companies will be introduced for 2023 as well².

Finally, it should be noted that in view of the numerous interventions of the AGCM on the sectors in which the A2A Group operates (in terms of initiating investigations for abuse of a dominant position and agreements, as well as fact-finding investigations, requests for information and moral suasion, particularly on the consumer protection side for alleged unfair commercial practices in the retail sale of electricity and gas, also in view of the completion of deregulation) the Board of Directors of A2A S.p.A. approved in 2019 the adoption of the Antitrust Compliance Program with the consequent appointment of a Person Responsible for its implementation. In 2020, the Antitrust Code of Conduct and an Antitrust Guideline were adopted, which regulates the rules of conduct that Group employees must observe in order to avoid antitrust violations (document available on the company Intranet). In the meantime, training sessions continued for the personnel of the various Business Units, and a specific training tool was activated and disseminated to all Group personnel on an e-learning platform.

For a more detailed discussion of these risks, reference should be made to the section "Regulatory developments and impacts on the Business Units of the A2A Group".

Financial risks

Liquidity risks

Liquidity risk is the risk that the Group is unable to meet its obligations in a timely manner or that it is able to do so under unfavourable economic conditions due to situations of tension or systemic crisis or to the changed perception of its riskiness by the market. To manage this risk, the Group guarantees the maintenance of adequate financial resources, understood as liquid assets and committed and uncommitted credit lines, sufficient to meet unexpected commitments over a given time horizon. At June 30, 2023, the Group had cash resources equivalents totalling 2,416 million euro, as well as committed and unused credit lines totalling 1,583 million euro.

Liquidity risk management is also pursued by the Group through a Bond Issue Program (Euro Medium Term Note Program) whose size, large enough to allow the Group timely recourse to the capital market, was increased in July 2023 to 7 billion euro, of which 1,650 million euro still available.

The Group's ability to obtain loans in the banking or financial markets depends, among other things, on prevailing market conditions and the Group's rating at the time of the need for financing.

Risks associated with compliance with debt covenants

This risk exists if the loan agreements provide for the option by the lender, upon the occurrence of certain events, to request early repayment of the loan, thus entailing a potential liquidity risk for the Group. The section "Other Information/Covenants Non-Compliance Risk" of the half-year Financial Report illustrates in detail these risks related to the A2A Group. The same section also lists the loans that contain financial covenants.

Interest rate risks

Interest rate risk is related to the uncertainty associated with the trend in interest rates, changes in which can result in, given a certain amount and composition of debt, an increase in net financial expenses. The exposure to interest rate risk arises mainly from the variability of financing conditions, in the event of taking out new debt, and from the variability of cash flows related to the interest produced by the variable-rate portion of debt. The volatility of financial expenses associated to the performance of interest rates is therefore monitored and mitigated through a policy of interest rate risk management aimed at identifying a balanced mix of fixed-rate and floating rate loans and the valuation of the use of derivatives (hedging and pre-hedging) that limit the effects of fluctuations in interest rates.

To provide a better understanding of the risks of interest rate fluctuations to which the Group is subjected every six month at December 31 and June 30, a sensitivity analysis was conducted of net financial expenses and valuation items of derivative financial contracts as a result of interest rate fluctuations. The section "Other Information/Interest Rate Risk" of the Half-year Financial Report illustrates the effects on the change in financial charges and in the fair value of derivatives resulting from a change in the forward curve of interest rates of +/- 50 bps.

² With reference to 2022, we refer to the provisions of both Article 37 of the LD Taglia-Prezzi (which had provided for a withdrawal on the increase in the balance between active and passive transactions) and of the Budget Law 2023, which taxed 2022 business profits (i.e. solidarity contribution in the form of extraordinary tax in implementation of EU Regulation 2022/1854).

Risks associated with industrial and business activities

Macroeconomic context risks

The Group's activities are sensitive to economic cycles and general economic conditions in the countries in which it operates. A slowing economy could determine, for example, a drop in consumption and/or of industrial production, having as a result a negative effect on the demand for electricity and of other carriers offered by the Group, thereby affecting the results and prospects and preventing the implementation of planned development strategies.

Last year was strongly impacted by the economic consequences of the conflict between Ukraine and Russia, with a generalized increase in commodity prices, inflation and tensions in the financial markets, credit and the supply chain; this situation led to a significant worsening of conditions in the advanced economies due to declining confidence, high inflation and the rapid tightening of monetary policy globally. Added to this is the negative effect on global supply chains caused by the closure measures adopted in China with the zero-Covid strategy. The first part of the current year 2023 sees the confirmation of the critical issues and uncertainties associated with the current complex geopolitical and economic framework: the main economies of the Eurozone are slowing down significantly and restrictive monetary policies are being confirmed, even though we are witnessing, in the European markets, a gradual reduction in energy commodity prices in connection with the effectiveness of policies to diversify natural gas supply sources. The global economy continues to be characterized by a climate of uncertainty that affects the volatility of commodity prices and dampens manufacturing activity and international trade. Uncertainty about the global outlook is heightened by the possible repercussions of the recent banking disruptions.

For the years to come, the macroeconomic projections envisage a generalized deterioration in the face of the persistence of geopolitical and economic uncertainties: the continuation of the tensions linked to a possible further reduction or interruption of supplies of gas and oil from Russia or from the countries that have replaced it as suppliers, could have a negative impact on the recovery path of economies, particularly on Western economies. The more or less pronounced effects will depend on the intensity and duration of the crisis.

Risks related to commodity and energy prices

Given the features of the sectors in which it operates, the Group is exposed to energy scenario risk, namely the risk linked to changes in the price of energy raw materials (electricity, natural gas), and the prices of CO2 emissions allowances (EUA). Significant, unexpected and/or structural changes in commodity prices, especially in the medium term, may result in a reduction in the Group's operating margins and cash flows.

To mitigate these risks, the Group has approved an Energy Risk Policy that regulates the procedures by which commodity risk is monitored and managed, or the highest level of variability to which the result is exposed with reference to the trend of prices of energy commodities. Consistent with the provisions of the Policy, the commodity risk limits of the Group are defined and approved annually by the Board of Directors.

Market risk is mitigated by constantly monitoring the total net exposure of the Group's portfolio and addressing the main factors affecting the trend. Appropriate hedging strategies are defined, where necessary, designed to maintain this risk within the established limits, typically through hedging at 12 and 24 months

The objective of stabilizing the cash flows generated by the asset portfolio and outstanding contracts is thus pursued through the management of physical contracts and derivative financial instruments, limiting to the extent possible, the volatility of the Group's economic and financial results following changes in commodity prices.

Social-environmental context risk

Possible opposition (the so-called "Not In My Back Yard" phenomenon) to the presence of plants promoted by certain stakeholders and amplified through the use of social networks, due to a negative perception of certain activities (such as waste recovery and disposal or the installation of photovoltaic and wind farms) in the areas served, could hinder the regular operation of existing plants as well as the authorization process for new plants and therefore, the growth planned by the Group in some business areas.

To mitigate this risk, the Group has set up organizational structures dedicated to monitoring institutional relations, with local communities and the territory, in order to establish and maintain collaborative dialogue with the various stakeholders. Within this framework, the Group, in order to build consensus around its initiatives, participates in technical round tables with institutional counterparts, especially at local level, as well as through the organization of multi-Stakeholder forums designed to promote dialogue with the local community. The forum was established with the aim of identifying solutions that can respond in a targeted and effective manner to the needs and expectations of stakeholders and that allow promoting the environmental, economic and social sustainability activities carried out by the Company and the Group and services provided in the territory.

For the management of this risk, the Group has also adopted an IT platform for stakeholder and relationship mapping, which is useful for carrying out a gap analysis and supporting the planning of Stakeholder Engagement and improvement activities.

Risks related to climate change

The A2A Group has a system in place for identifying, assessing and managing climate change risks that is integrated into the Group's Enterprise Risk Management process.

Climate risks and opportunities are identified on the basis of three time horizons: short-term, up to one year (corresponding to the budget year), medium-term, from 2 to 5 years, and long-term, from the sixth year of the Plan until 2030 and beyond. The choice of these horizons was based on the analysis of the climatic, economic, energy and regulatory reference context.

The climate risks identified for the A2A Group are the result of a materiality analysis carried out considering the risk categories outlined by the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), and the businesses operated and the services offered by the Group. The Disclosure in accordance with the Recommendations of the TCFD, including

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the economic-financial assessment, is published in detail in the Integrated Financial Statements. A qualitative summary of the main risks is presented below.

For physical climate risks (both chronic and acute), the A2A Group refers to the European Union's Climate-related Hazards Framework issued as part of the EU Taxonomy of Green Investments (Appendix A of the Delegated Regulation (EU) supplementing Regulation EU 2020/852 of the European Parliament and of the Council). Hazards related to temperature regimes, wind, precipitation and solid masses can generate impacts for Group companies in connection with the reduction or suspension of services and damage to company assets and/or persons.

Chronic climatic risks

The Group's hydroelectric and thermoelectric energy production and the continuity of the distribution services of drinking water provided by the Group may be affected by unfavorable variations in the rainfall regime both with regard to the total annual amount of rainfall and with regard to its distribution throughout the year. Reductions in the availability of water resources in hydroelectric can also lead to conflicts between various stakeholders as well as restrictions on the operation of plants. Unfavorable winter rainfall patterns and rising temperatures also impact the availability of high-altitude water resources.

Sales of gas and heat for heating can be affected by particularly mild temperatures in the autumn and winter seasons.

These factors can have an unfavourable impact on the Group's production, sales and reputation and, consequently, have negative economic-financial impacts.

Several actions are underway to mitigate these risks:

- to ensure optimum exploitation of water resources available for energy, the Group has established organizational structure dedicated to the development of analyses and engineering models to support the programming, both medium and short-term, of hydroelectric plants; moreover, investments are planned both to optimize the use of the available and derived water resources for hydroelectric purposes (pumping) and to energetically exploit the waters made available to other stakeholders before their release;
- with reference to the reduction of thermal energy demand by end users compared to what was planned, the Group, through the Business Plan, implements the following risk reduction strategies: a) development of district heating networks and increase in the number of customers; b) optimization of energy costs with thermal waste recovery projects and revamping of existing plants. In addition, the Group monitors investment support policies for the development and extension of TLR networks, including in the area of efficient district heating, carries out studies on technological

alternatives for heating, and participates in round tables with local authorities on environmental objectives;

 in order to guarantee, even in the long term, the supply of drinking water on an ongoing basis, the A2A Group monitors and maps leaks from the water network in order to identify the priority of investments to contain them and is studying the interconnection of aqueducts and the search for new sources of water supply.

Acute climatic risks

As part of the operating activities of the electricity grids, the issue of continuity of service during periods of violent and concentrated heat waves and/or precipitation, affecting the areas served, generating reputational risks as a result of prolonged interruptions in the provision of the service.

In order to mitigate this risk, in addition to the usual maintenance activities, the Group planned and launched the strengthening of the interventions to rationalize the meshing of the grids, the construction and commissioning of new primary and secondary substations, a three-year plan to increase the resilience of the grid in agreement with ARERA as well as the expansion of remote asset management systems. There are also remote operational controls. advanced technical safety tools, emergency intervention teams as well as specific safeguards for infrastructure, which are more exposed to risks of interruption in the delivery of services. The "Milan heat wave preparation" Working Group was set up, responsible for coordinating the prevention and management of disruptions and the related communication activities.

Periods of drought, such as the one that occurred in 2022, especially if in conjunction with heat waves, can lead to limitations in the operation of thermal power plants due to the possible lack of sufficient or sufficiently cool water to cool production cycles. Heat waves can lead to a drop in production efficiency for air-cooled plants.

Extreme weather phenomena such as floods and landslides can have a negative impact on the Group's assets (such as canals, distribution networks, dams, plants) as well as on third-party infrastructures necessary for the continuity of the Group's activities (e.g. electricity transmission lines). These factors can result in direct damage to assets and/or indirect damage due to the interruption of production activities. To mitigate this risk, the Group implemented emergency management plans and procedures.

In addition, insurance policies are in place to cover all physical weather risks in the presence of material damage to assets.

Climate change and health, safety and environment

The Group also takes into account the possible effects of climate change on people as well as the environment and land. Collection and urban hygiene activities, those for network services and at plants and construction sites involve workers being outdoors, who are particularly exposed to heat waves. The Group has identified this risk, which can affect both individual well-being and the risk of accidents, and has put in place measures to mitigate it and inform its employees. Acute phenomena such as heavy rainfall and 'water bombs' can lead to flooding in plants and/or overflowing of containment tanks placed to protect any spills, with the risk of potential pollution of the soil or water bodies in the vicinity. To mitigate this risk, the Group modified the capacity of the containment systems in the most critical situations

Transition risks

Finally, the Group is exposed to the risks associated with the transition to a low-carbon economy, which is expressed through regulatory amendments, technological innovation, changes in consumption styles and stakeholder expectations. If these factors were not sufficiently taken into account in the definition of the Group's strategic choices, they could lead to economic and financial impacts due, for example, to the depreciation of industrial assets and possible reputation impacts.

Changes in the regulatory framework of the Emission Trading Scheme (EUAs) and the possible inclusion of activities currently excluded in the mechanism could have an unfavourable impact on the Group.

Uncertainties in the prices of CO2 emission permits (EUAs) may give rise to unfavorable or favorable impacts on the profitability of power plants.

To contribute to the decarbonization process, the Group has undertaken to reduce its CO2 emissions: the Business Plan laid the foundations for achieving zero direct and indirect (both Scope 1 and Scope 2) emissions generated by the Group by 2040 and strengthened the businesses that can contribute to the country's ecological transition. This virtuous path envisages the improvement of the Group's emission factor to 2030 compared to the target approved by the Science Based Targets initiative - SBTi (226 gCO2/kWh in the current Plan vs 230 gCO2/kWh certified SBTi). The implementation of the decarbonization plan and the achievement of its goals cannot be separated from the strategic energy choices made at government level to manage the energy crisis induced by the Russia-Ukraine conflict.

Operating risks due to the ownership and operation of electricity generation, cogeneration, waste treatment and recovery plants and distribution networks and plants

The Group manages production sites, infrastructure and services that are operationally and technologically complex (power plants, dams, waste recovery and disposal plants, cogeneration plants, electricity, gas and heat distribution networks, waste collection and urban hygiene services, integrated drinking water supply service, etc.). Accidental mechanical and/or electrical failures, structural failures, fires, terrorist attacks, and labour unrest could result in damage to assets and, in the worst cases, compromise the Group's production capacity, as well as the possibility of guaranteeing the continuity of services provided. Added to this, with specific reference to the current context, is the potential difficulty in procuring materials and supplies for routine maintenance of plants and infrastructure. To cope with this difficulty, a management of material stocks and supplier fleets is implemented to ensure the availability of the necessary supplies.

All these factors can also lead to cost increases, damage to third parties, as well as penalties imposed by the competent authorities.

In order to mitigate these risks, the Group realizes preventive management strategies aimed at reducing the probability of their occurrence and/or mitigating their impact. In addition, the Group has investments in place to ensure constant technological updating and adequate levels of plant maintenance, emergency management plans and procedures and a Crisis Plan that provides for the establishment of interdisciplinary management committees, organized at both Group and Business Unit level and coordinated among them.

It should be noted that, to date, no critical points have been found in the provision of services in connection with the persistence of the health emergency.

The Group takes out insurance cover against any direct and indirect damage which may arise from other types of risk. As part of the insurance contract, inspections are carried out periodically on the plants and measures to improve the safety of assets and loss prevention are recommended/verified.

Information technology and operational technology risks

The A2A Group's activities are managed through IT (Information Technology) and OT (Operational Technology) systems and networks that support the main business processes, whether operational, administrative or commercial. In particular, the Group uses IT systems to record, process and summarize financial information and results of operations for internal reporting purposes and to comply with regulatory, legal and tax requirements. In addition, the Group collects and stores at Data Centers, sensitive data, including intellectual property, business information and personal information of customers, service providers and employees. The functioning of these information and technology systems and networks, as well as the processing and storage capacity of this data in a secure manner, are fundamental to the Group's activities.

Increased threats to the security of information infrastructure, including from the use of personal tools as a result of the remoteness of work, and increasingly sophisticated forms of

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cybercrime pose a risk to the security of the Group's systems and networks and to the confidentiality, availability and integrity of its data. A security breach could expose the Group, its customers, service providers and employees to risks of misuse of information or systems, compromise and fraudulent use of confidential information, loss of financial resources, data manipulation and destruction as well as operational disruption. All of these factors could adversely affect the Group's reputation, competitive position, business and results; security violations of information systems could also result in litigation, fines and disqualification penalties, as well as operational and other costs.

To mitigate this risk, numerous actions are in place in the Group: outline of internal policies and procedures, tools for segregating access to information, progressive adoption of measures aimed at increasing security by requiring additional factors to verify the user (Multi Factor Authentication), specific policies relating to the use of mobile devices, assessments concerning the vulnerability of systems and applications, specific software for malware research, training activities to increase employee awareness, periodic IT Security risk assessment activities to identify the most critical applications, internal audits focused on the resilience of the systems and effectiveness of the measures taken. In addition, corporate reorganizations were implemented to ensure, among other things, integrated and holistic management of corporate security for all assets, both physical and digital; continuous enhancement of the Security Operations centre to increase the effectiveness of threat monitoring; and specific interventions to mitigate emerging risks, also as a result of the substantial use of remote working modes. Lastly, it is noted that in 2022, the Company achieved ISO 27001 certification, the international information security standard.

Any inadequacies, fragmentations, unavailability and/or malfunctioning of the applications could compromise the Group's ability to operate within the set times and methods. These factors could result in a loss of reputation with customers as well as economic and financial impacts. In order to mitigate this risk, activities are underway to renew and/or replace existing platforms or to rationalize the application systems in use, particularly as regards the Customer Relationship Management and billing platforms supporting commercial activities. The initiatives listed above are aimed at achieving a gradual deobsolescence of the Group's IT architecture with a view to streamlining operational activities as well as increasing the robustness of processed data against external threats.

There is also the risk of possible relevant and prolonged interruptions to information systems and company infrastructures as a result of potential events (natural or otherwise) affecting them, with potentially even critical consequences on the Group's ability to maintain the continuity of its systems. To

mitigate this risk, the Group has recently finalized its Disaster Recovery (DR) plan, which provides for the recovery of the most critical applications and related enablers within specific time frames, back-up and duplication of data. The DR plan can now count on the presence of two Data Centers, equipped with high levels of security in terms of service continuity, and a Group cloud strategy is being implemented to make the company's information systems more usable and resilient.

With reference to the Business Continuity Plan, critical processes were identified on the basis of evidence from the Business Impact Analysis and a Business Continuity Management System - SGCO was arranged. Thanks also to the above-mentioned Disaster Recovery Plan, the Company obtained ISO 22301 (Business Continuity Management) certification for A2A S.p.A.. In the coming years, the certification scope will be extended to other Group subsidiaries.

Finally, the growing attention to the possible impact of artificial intelligence on the Group's business is highlighted; by the end of 2023, an initial regulation of the matter is expected with the issuance of the AI Act (Artificial Intelligence Act), which will impose a series of obligations and constraints on companies that make use of artificial intelligence in their information systems. The A2A Group has already carried out an initial mapping activity of AI applications by risk class, and mitigating actions of an organizational and procedural nature have been planned aimed at the Group's full compliance with the entire regulatory system.

Health and safety risks

The occurrence of such risks may occur both in the event of accidents or serious or very serious injuries affecting employees and workers of contractors and/or third parties and in the event of occupational illnesses. These risks are related to the Group's activities such as, for example, those related to operational services in the territory and the performance of operating and maintenance processes at the plants.

The occurrence of such risks may lead to loss of reputation, as well as criminal, civil and/ or administrative proceedings for violations of regulations, and/or sanctions, costs for compensation and/or increase in insurance premiums and, in the worst cases, interruption of plant operations, with consequent negative economic and financial impacts for the Group.

In order to mitigate these risks, the Group has set up organizational structures dedicated to the management of Health and Safety aspects at the parent company as well as at the Business Units, the individual companies and the main plants. The Group also maintains Health and Safety Management Systems certified in accordance with ISO 45001 for the parent company A2A and most of its Subsidiaries. The group's main companies operating in the

municipal collection and hygiene sector, which are particularly exposed to the risk of road accidents, are certified according to the ISO 39001 standard on road safety. In addition to specific compulsory training plans for each role and company assignment, Leadership in Health and Safety - LiHS training programs have been implemented and progressively extended also to all Business Units, which envisage at all levels emotional involvement on the issue of security and the dissemination of security culture through leaders identified within the operating

In relation to the COVID-19 pandemic, given the current regulatory framework, the Group adopts the requirements and protocols laid down in the current regulations and the guidelines issued by the competent bodies.

Environmental risks

The emergence of such risks may occur as a result of accidents in production processes and of the particular characteristics of the business carried out by the Group, which may lead to reactions by the public opinion about presumed repercussions on the environment and/or on the health of resident populations. These risks are related, for example, to the disposal of production residues, emissions from production processes, the management of waste collection, storage, treatment and disposal activities, water purification, the management of the emptying and maintenance of water reservoirs for electricity production, etc. All these factors can potentially lead to loss of reputation, criminal, civil and administrative proceedings. penalties, environmental reclamation and restoration costs and, in the worst cases, interruption of plant operations with consequent negative economic and financial impacts for the Group.

It is also noted that any amendments to the existing legislation could entail costs and investments to ensure compliance with the new requirements as well as operational and/or profitability impacts on certain industrial activities.

In order to mitigate these risks, the Group, in addition to implementing technical and technological systems for the prevention and reduction of pollution at the various industrial sites in compliance with sector regulations and in accordance with the best available techniques, has set up organizational structures dedicated to the management of environmental aspects at the parent company as well as at the Business Units, individual companies and the main plants. The Group also keeps the Environmental Management Systems certified according to the ISO 14001 standard active for the parent company A2A and for the main companies. For some sites, there are also registrations under the European EMAS Regulation.

With specific reference to the management of the Group's landfills, including those under post-operational management, it should be noted that monitoring of the values of pollutants in the water table is carried out on a regular basis and summary reports are sent to the relevant bodies. There are frequent checks carried out by as well as the execution of internal audits and by external certifiers for the maintenance, among others, of compliance with the UNI EN ISO 14001 standard.

The A2A Group has taken out insurance cover against damage arising from both accidental and gradual pollution in order to cover any residual environmental risk, i.e. against events caused by a sudden and unpredictable fact, and against the environmental damage inherent in continuing operations.

The Group is also active in monitoring the regulations in progress (in particular, a working group has been set up to monitor the regulatory provisions relating to the European Green Deal) and is also present on the technical panels set up by the associations in order to highlight any critical issues related to regulatory developments.

Certification of the Half-yearly condensed financial statements pursuant to art. 154-bis, paragraph 5 of Legislative Decree no. 58/98

Certification of the Half-yearly condensed financial statements pursuant to art. 154-bis, paragraph 5 of Legislative Decree no. 58/98

- 1. The undersigned, Renato Mazzoncini, as CEO of A2A S.p.A., and Luca Moroni, as Financial Reporting Manager of A2A S.p.A. also considering the provisions of article 154-bis, paragraphs 3 and 4, of Legislative Decree no. 58 of February 24, 1998, as amended,
 - the adequacy in relation to the characteristics of the company and
 - · the effective application

of administrative and accounting procedures for the preparation of the Half-yearly condensed financial statements in the first half-year of 2023.

- 2. It is also certified that:
 - 2.1 the condensed half-year financial statements as at 30 June 2023:
 - a) have been prepared in accordance with International Financial Reporting Standards as endorsed by the European Community pursuant to Regulation (EC) no. 1606/2002 of the European Parliament and of the Council of July 19, 2002;
 - b) correspond to the information contained in the accounting ledgers and records;
 - c) provide a true and fair representation of the equity, economic and financial situation of the issuer and the whole of the companies included in the scope of consolidation.
 - 2.2 The half-year report on operations includes a reliable analysis of the references to the significant events occurred in the first six months of the year and their incidence on the condensed half-year financial statements, as well as a description of the main risks and uncertainties for the remaining six months of the year. The half-year report on operations also includes a reliable analysis of the information regarding transactions with related parties.

Milan, July 28, 2023

Renato Mazzoncini (Chief Executive Officer)

Luca Moroni (Financial Reporting Manager)

Independent Auditors' Report

Independent Auditors' Report



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Review report on the half-yearly condensed consolidated financial statements (Translation from the original Italian text)

To the Shareholders of A2A S.p.A.

Introduction

We have reviewed the half-yearly condensed consolidated financial statements, comprising the consolidated balance sheet, the consolidated income statement, the consolidated statement of comprehensive income, the statement of changes in group equity and the consolidated cash flows statement and the related notes of A2A S.p.A. and its subsidiaries (the "A2A Group") as of June 30, 2023. The Directors of A2A S.p.A. are responsible for the preparation of the half-yearly condensed consolidated financial statements in conformity with the International Financial Reporting Standard applicable to interim financial reporting (IAS 34) as adopted by the European Union. Our responsibility is to express a conclusion on these half-yearly condensed consolidated financial statements based on our review.

Scope of Review

We conducted our review in accordance with review standards recommended by Consob (the Italian Stock Exchange Regulatory Agency) in its Resolution no. 10867 of 31 July 1997. A review of halfyearly condensed consolidated financial statements consists of making inquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. A review is substantially less in scope than an audit conducted in accordance with International Standards on Auditing (ISA Italia) and consequently does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion on the half-yearly condensed consolidated financial statements.

Conclusion

Based on our review, nothing has come to our attention that causes us to believe that the half-yearly condensed consolidated financial statements of A2A Group as of June 30, 2023 are not prepared, in all material respects, in conformity with the International Financial Reporting Standard applicable to interim financial reporting (IAS 34) as adopted by the European Union.

Milan, August 2, 2023

EY S.p.A.

Signed by: (Enrico Lenzi), Statutory Auditor

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

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