a2a
LIFE COMPANY

Life is a Circle

2023

Report on Operations

Report on Operations

2023

these Financial Statements are available at the website
gruppoa2a.it

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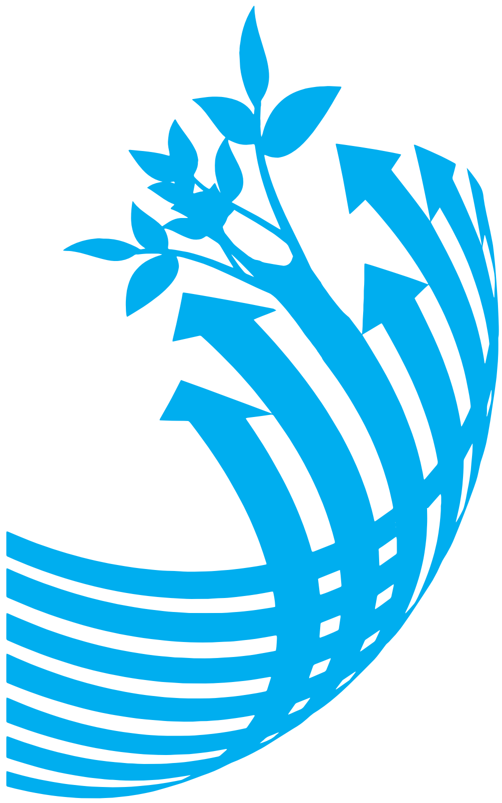

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This is a translation of the Italian original "Relazione sulla Gestione 2023" and has been prepared solely for the convenience of international readers. In the event of any ambiguity the Italian text will prevail. The Italian original is available at the website **gruppoa2a.it**

Letter to Shareholders and Stakeholders

For the third year in a row, we write our letter to stakeholders having to take into account a geopolitical context of increasing complexity and rapid change.

The ongoing conflicts in many areas of the world, Europe, the Middle East, Africa, highlight more intense social conflict and are the source of a strong sense of insecurity that contributes to the increase in migratory phenomena, as a consequence of the lack of prospects, droughts and, more generally, climate change.

From an economic point of view, gas prices halved during 2023 and even reduced to a quarter of their 2022 peaks. Inflation has also started to slow down, despite the crisis in international trade due to transit through the Red Sea and the Panama Strait.

Despite these emergencies, international diplomacy has not forgotten the priority of combating climate change. The final text approved at COP28 enshrines, for the first time, the principle of exit from all fossil fuels. Agreement only partially satisfactory since, while admitting the distance to the decarbonization trajectory outlined in the Paris Agreement, it failed to define effective targets for the phase-out of non-renewable sources.

And, while in 2023, the European Union started the process of passing important legislation to protect biodiversity, the WWF notes that there is about 70% less wild animal population on Earth than in 1970, and for science we have lost 50% of the trees since the dawn of civilisation.

All this, in the hottest year on record.

At such a complicated time, the budget, and this accompanying note, are an essential appointment for us to reflect on the journey and share the challenges and opportunities of the near future. We are once again faced with unstable scenarios that we have decided to tackle by confirming our commitments and, at the same time, setting new goals. In 2023, we therefore worked assiduously to contribute to the improvement of the system we are part of as a Life Company. Our technology, infrastructures and services aim to contribute to the development of society, the well-being of people and the preservation of ecosystems, thanks to a model that we believe is sustainable and virtuous, and which rests on two distinct but closely interconnected pillars: the circular economy and the energy transition.

Before commenting on the results we have achieved and which have seen us conclude a year of great satisfaction, we would like to pause to remember the colleague who lost his life in a dramatic accident last November, the first fatal accident in A2A's albeit brief history. Our thoughts are with him and his family. And to all the people of the Group, the confirmation of a constant commitment to the application of the best safety rules and practices that everyone must respect, for themselves and their loved ones.

Thanks to the contribution of all Group Business Units, in particular the Generation and Trading BU and the Market BU, we ended 2023 with our best results ever: EBITDA amounted to 1,971 million euro, +32% compared to the previous year, and Net Profit was 659 million euro, +64% compared to 2022. Numerous industry targets set in the first Strategic Plan 2021-2030 presented in January 2021 were exceeded, including, for example, the customer base (from 2.9 million customers in 2020 to 3.5 million in 2023; +0.2 million customers compared to 2023P[1]) and power generation capacity from renewable sources (from 0.1 GW in 2020 to 0.6 in 2023; +0.2 GW compared to 2023P[1]). In addition, we have further increased investments in key infrastructure for the ecological transition in 2023, 11% more than in 2022 for a total of 1,376 million euro.

On the energy transition front, 2023 for our Group was a year of important actions aimed at increasing production from renewable sources. The main one was the start-up of the Matarocco wind farm in Sicily, with an installed capacity of 30 MW.

During the year, investments in improving the resilience of electricity grids continued with the inauguration of a new primary substation

1 Value planned in the first 10-year plan 2021-30, presented in January 2021

in Vobarno in the province of Brescia, designed with attention to the landscape and environmental compensation activities. We have patented and inaugurated at Unareti's Smart Lab in Milan a completely watertight underground secondary station, to respond to the increasingly frequent flooding. Also in 2023, after a great deal of dialogue with the territory and local institutions, we obtained authorisation to proceed with the reconversion of the Monfalcone plant: the new cogeneration plant will replace the current coal-fired plant, helping to rationalise the Group's production, becoming a fundamental asset for the country's energy security.

While the area of energy transition has been very satisfying, in the area of the circular economy we have been working just as hard: incoming waste treated at our plants has increased by 16% compared to 2022. From the collection a percentage close to zero was destined for landfill, which shows how in our business model waste is a raw material from which new resources can be obtained, to fuel the production of electricity and heat.

Along these lines, in 2023, we further developed the technology of our waste-to-energy plants to increase the capacity to supply the electricity grid and district heating with an alternative source to fossil fuels, thus contributing to the decarbonization of the country. In particular, on the Brescia waste-to-energy plant, the revamping of the flue gas filtration system with heat recovery was completed in 2023, which made it possible to reduce the emissions of acid components and nitrogen oxides and to recover the energy currently dispersed by the flue gas. As a result, we have increased heat production to the value of heating 12,500 households.

In partnership with Phononic Vibes, a spin-off of the Politecnico di Milano, a second patent was also obtained for the development of a technology capable of absorbing sound and mechanical waves during the glass recycling process, helping to contain noise typical of the urban environment.

As a result of all these investments in the ecological transition and an external context that has seen a mitigation of the energy crisis, climate-changing emissions from our plants were substantially reduced to 5.6 million ton in 2023, a reduction of 36% compared to 2022.

In response to the demands around us for a transition that is also fair and shared, we have continued, with even greater determination, to work for the development of the country and the well-being of the communities we serve.

For our colleagues. We have updated the DE&I Declaration of Commitment, 6 Group companies have obtained Gender Equality Certification and, for the first time, more than half (52%) of the entry level positions among employees (under 28 years of age) are filled by women. In 2023, more than 1,500 people joined our Group, 39% of them under 30, giving many young people the chance to have a secure job (more than 97% of contracts are permanent), with a net increase of 263 new colleagues.

For our customers. We launched Noi2, the innovative lighting offer dedicated to domestic consumers; a real partnership for 10 years, to jointly support the growth of production from renewable sources: thanks to V.I.P. (Virtual Innovative Panel), our customers have a daily mix of energy available from A2A's wind and photovoltaic plants in Italy.

For our suppliers. We have raised the weight of the ESG area in supplier assessment to 30% and supported companies in our territories in implementing sustainability practices within their processes, publishing and disseminating three training documents in 'guidelines' format, specifically for drafting their own Code of Ethics, Environmental Policy and Human Rights Policy.

For our territories. We celebrated water in Valtellina and Valchiavenna with a busy program of initiatives aimed at promoting good practices for correct use, reduction of losses, recovery, reuse and improvement of services dedicated to the water resource. We received over 670,000 visitors at the A2A "Festival of Lights" during the Brescia and Bergamo Capitals of Culture 2023 initiatives.

For our stakeholders. We crossed Italy with the annual program "Alliances for Ecological Transition", holding 11 Multistakeholder Forums in the main territories where we are present, involving some 200 partners including institutions, associations, cultural bodies, universities and community representatives to build together shared-value projects for the sustainable development of the various local realities.

For future generations. We have chosen to actively interpret the new Article 9 of the Constitution with an expansion of activities dedicated to the world of schools, children and young people. We developed our educational and outreach activities by involving over 100,000 people this year in educational projects, plant visits, and by launching a new initiative to give a voice to the new generations, the "Futuro in Circolo" movement, which unites children and adolescents in the mission of raising awareness of environmental protection in their communities.

In this context, aware of the challenges posed by the scenario around us and the need to have a clear long-term vision in order to be effective in our choices and investments, we wanted to relaunch our commitment with a new Strategic Plan, presented to the market on March 12. The two pillars of the Circular Economy and the Energy Transition remain at the heart of our strategy but project goals to 2035, an intermediate goal compared to the continent's net zero at 2050, however fundamental for the sustainability of the Group, for the well-being of people, the prosperity of the companies we work with and the preservation of nature.

The Group will invest 22 billion euro over the period 2024-2035, of which 6 billion euro will be allocated to the Circular Economy and 16 billion euro to Energy Transition. With respect to the latter, investments will also include the acquisition of a large part of the electricity distribution network in the province of Milan and, in the Brescia area, in Valtrompia: 17 thousand kilometers of electricity grid, on which 800 thousand POD and 60 primary substations are located. The Business Plan confirms the Group's focus on a balanced and sustainable financial structure, aimed at maintaining A2A's credit profile at a solid investment grade. The careful allocation of capital will enable the company to achieve important economic results: EBITDA is expected to reach 2.2 billion euro in 2026 and over 3.2 billion euro with a profit of over 1 billion euro in 2035.

To keep these promises we work every day, together with our 14,000 colleagues, whom we would also like to thank in this letter, because our vision aims far ahead, but our awareness tells us that we build the future today, acting consciously, with our daily work and the ethical rigour of our behaviour.

The Chairman
Roberto Tasca

The Chief Executive Officer
Renato Mazzoncini

Corporate boards

Board of Directors

Chairman
Roberto Tasca

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
Mario Motta
Elisabetta Pistis
Maria Grazia Speranza
Alessandro Zunino

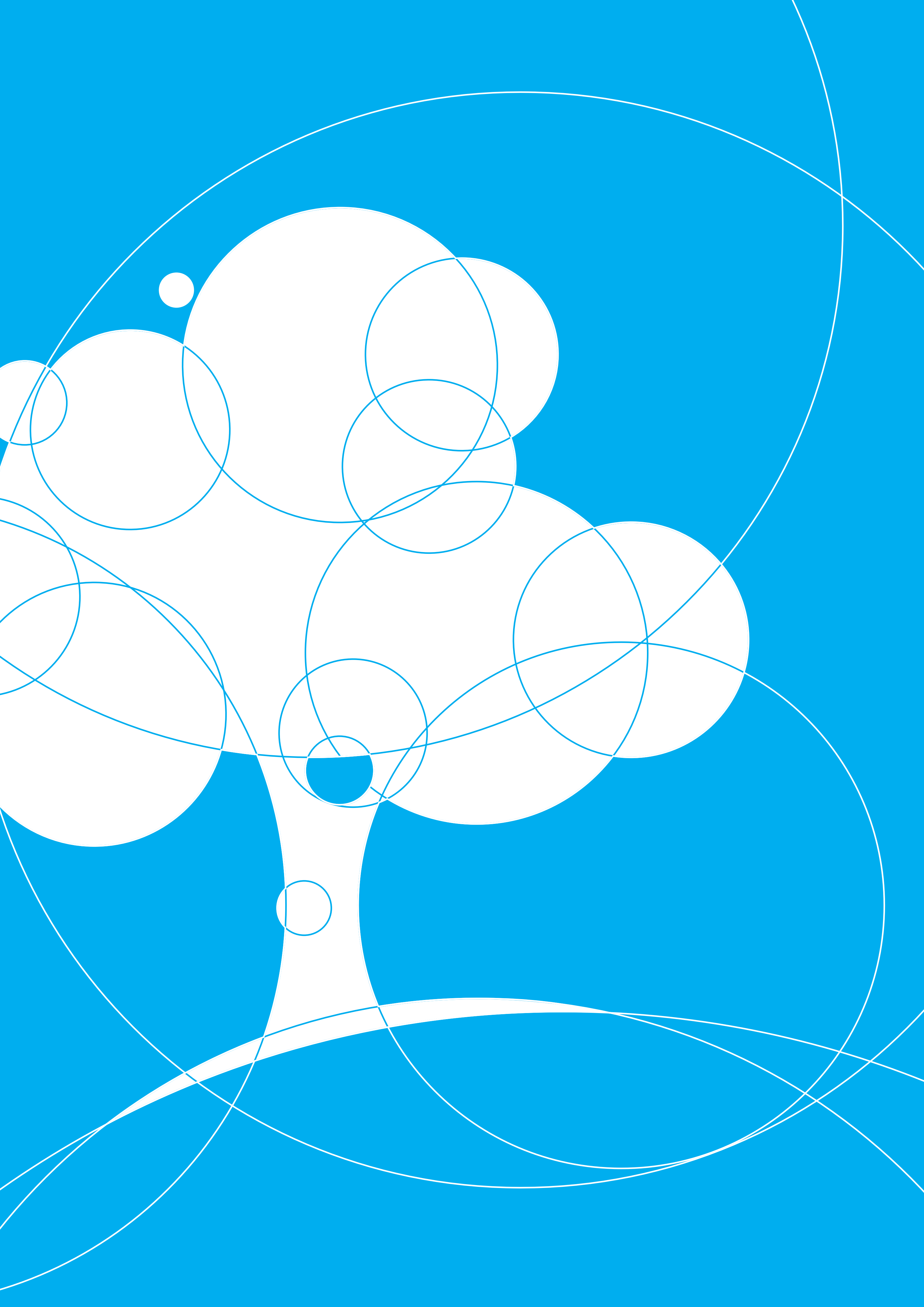
Board of Statutory Auditors

Chairman
Silvia Muzi

Statutory Auditors
Maurizio Dallocchio
Chiara Segala

Alternate Auditors
Vieri Chimenti
Patrizia Riva

Independent Auditors
EY S.p.A.



1

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.

1 Key figures of the A2A Group

1.2
Geographical areas of activity

Plants

Energy	Thermoelectric	
	Hydroelectric	
	Photovoltaic	
	Wind	
Environment	Waste-to-energy	
	Waste treatment plant	
	Material recovery plant	
	Landfill	
	Biogas production	

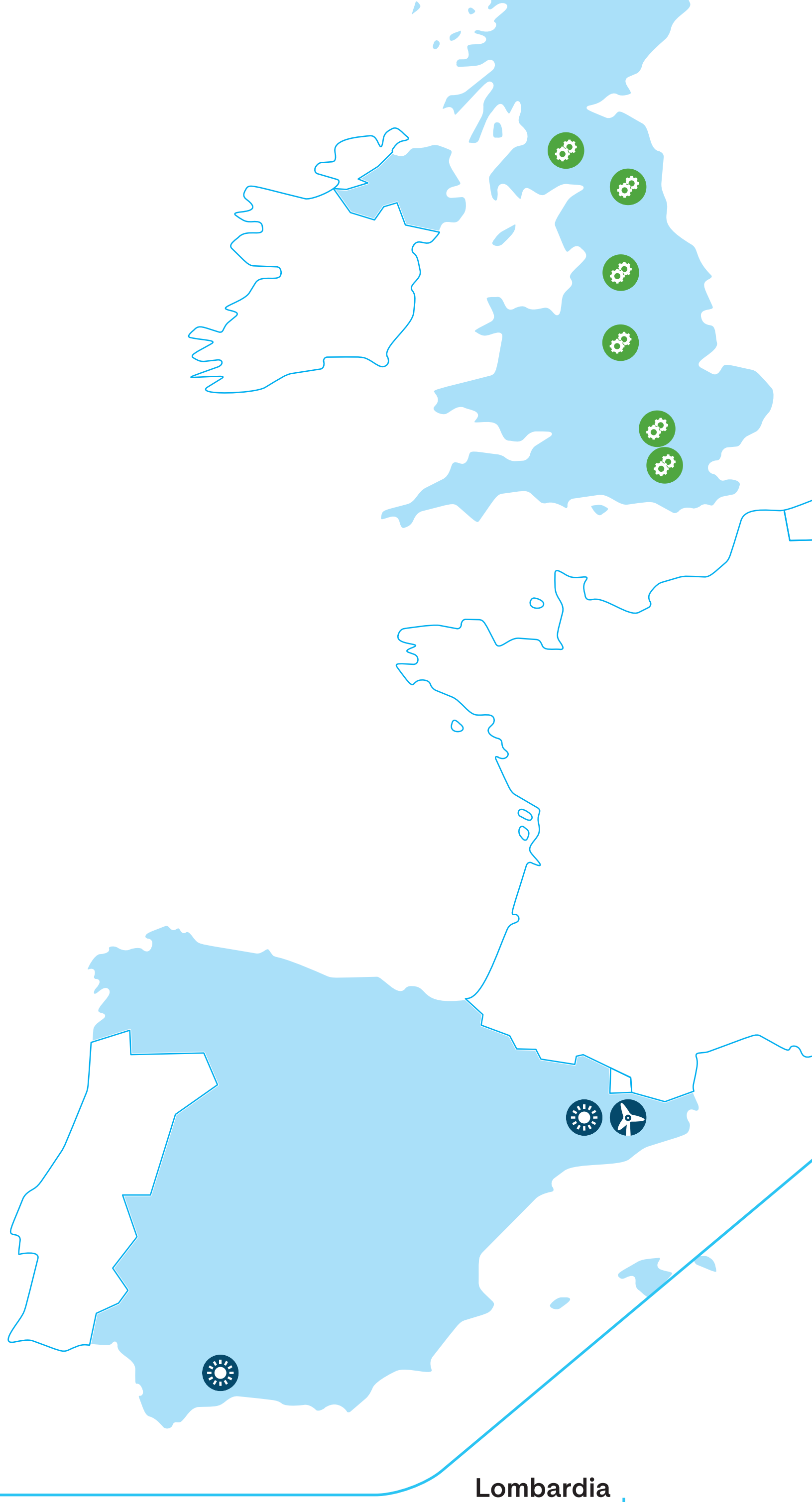
Services

Waste	Waste collection	
Distribution and transport	Electricity distribution	
	Gas distribution	
	Gas transport	
District heating	District heating	
Water	Integrated water service	
Lighting	Public lighting	
Electric mobility	e-Moving charging stations	

Partnership

Partnership	Technological	

Updated at 12.31.2023



Lombardia

Milan

Brescia - Registered Office

Sondrio

Bergamo

Pavia

Varese

Como

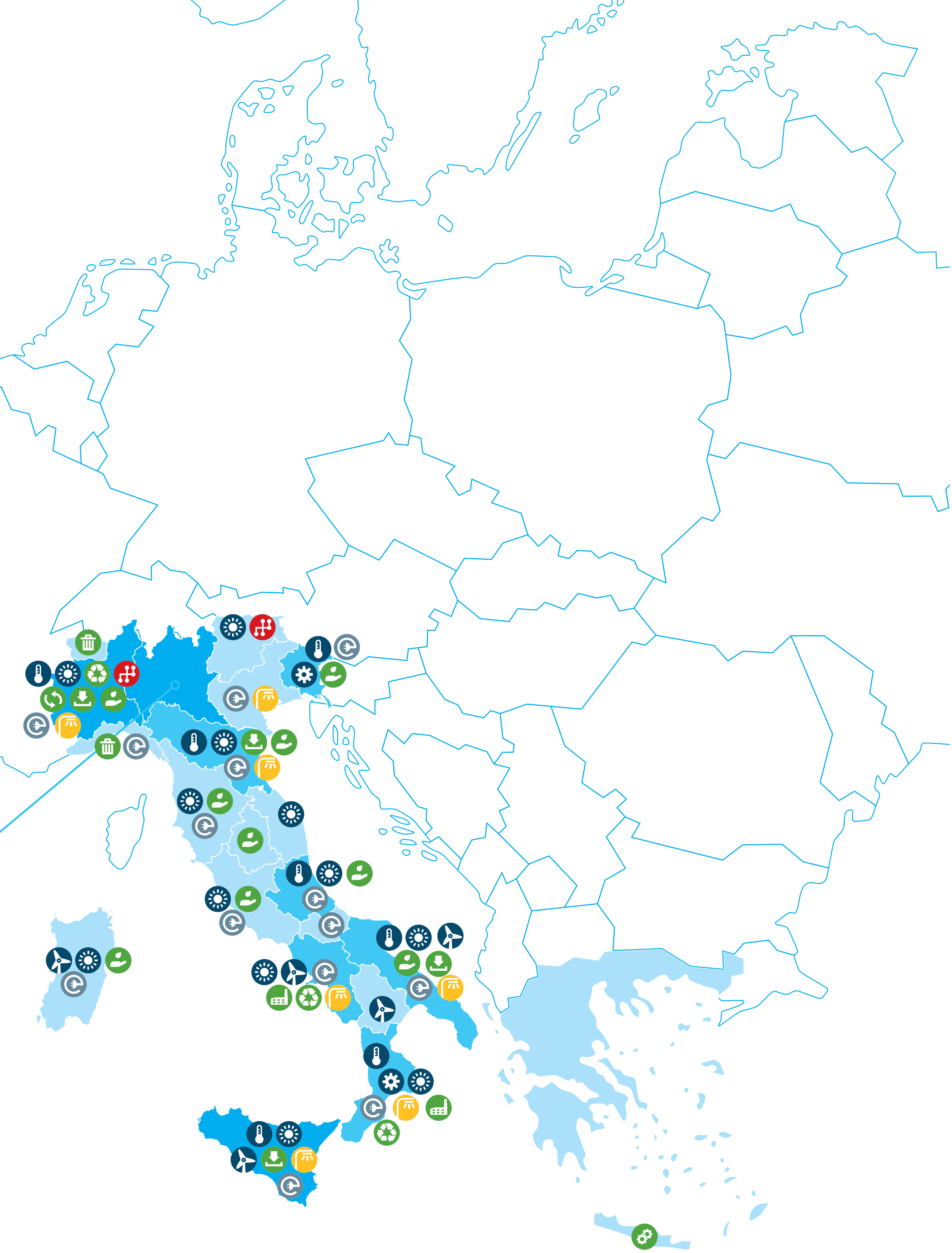
Mantova

Lodi

Cremona

Monza

Lecco



1.3

Group structure

a2a LIFE COMPANY

Generation and Trading

Market

Waste

Smart Infrasctructures

Other companies

- 100% A2A gencogas
  - 50% Ergosud
- 100% A2A Energiefuture
- 100% A2A Rinnovabili
- 100% Linea Green
- 100% A2A Energia
  - 99.98% LumEnergia
  - 50% Metamer
- 100% A2A Energy Solutions
- 100% A2A Ambiente
  - 100% Amsa
  - 100% Aprica
  - 100% AGRIPOWER
  - 100% Linea Ambiente
- 100% A2A Ciclo Idrico
- 100% A2A Calore & Servizi
  - 100% A2A Airport Energy
  - 100% Termica Cologno
- 100% A2A Smart City
- 100% Unareti
- 95.60% LD Reti
- 91.60% Retragas
- 89% Camuna Energia
- 74.80% ASVT
- 41.34% Acinque
  - 99.75% Acinque Energia
  - 100% Acinque Ambiente
  - 100% Lereti
  - 100% Acinque Tecnologie
- 33.52% AEB
  - 90% VGE 05
  - 100% Gelsia
  - 100% Gelsia Ambiente[1]
  - 100% A2A Illuminazione Pubblica
  - 100% RetiPiù

This chart shows the most significant shareholdings of the A2A Group. Reference is made to annexes 1, 2 and 3 of the file of the Consolidated Financial Statements for a complete detail of shareholdings.

1 30% held through A2A Integrambiente S.r.l..

1.4
Financial highlights
at December 31, 2023 (**)

14,758
mln €
Revenues

1,971
mln €
Gross Operating Income

659
mln €
Result of the year

0.0958
€ per share
Dividend

Income statement figures

millions of euro	01 01 2023 12 31 2023	01 01 2022 12 31 2022 Restated
Revenues	14,758	23,156
Operating expenses	(11,972)	(20,893)
Labour costs	(815)	(765)
Gross Operating Income - EBITDA	**1,971**	**1,498**
Depreciation, amortization, provisions and write-downs	(954)	(816)
Net Operating Income - EBIT	**1,017**	**682**
Result from non-recurring transactions	2	157
Financial balance	(140)	(88)
Result before taxes	**879**	**751**
Income taxes	(199)	(344)
Net result from discontinued operations	3	41
Minorities	(24)	(47)
Group result of the year	**659**	**401**
Gross Operating Income/Revenues	**13.4%**	**6.5%**

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

Balance sheet figures

millions of euro	12 31 2023	12 31 2022
Net capital employed	9,485	8,725
Equity attributable to the Group and minorities	4,802	4,467
Consolidated net financial position	(4,683)	(4,258)
Consolidated net financial position / Equity attributable to the Group and minorities	0.98	0.95
Consolidated net financial position / EBITDA	2.4	2.8

Financial data

millions of euro	01 01 2023 12 31 2023	01 01 2022 12 31 2022
Net cash flows from operating activities	1,040	1,260
Net cash used in investing activities	(1,365)	(1,142)
Free cash flow (Cash Flow Statement figure)	(325)	118

Energy scenario

	12 31 2023	12 31 2022
Average of the PUN (Single Nationwide Price) Base load (Euro/MWh)	127.4	303.1
Average of the PUN (Single Nationwide Price) Peak load (Euro/MWh)	137.4	333.6
Average price of gas to the PSV* (Euro/MWh)	42.3	121.9
Average price of emission certificates EU ETS** (Euro/tonne)	85.0	81.3

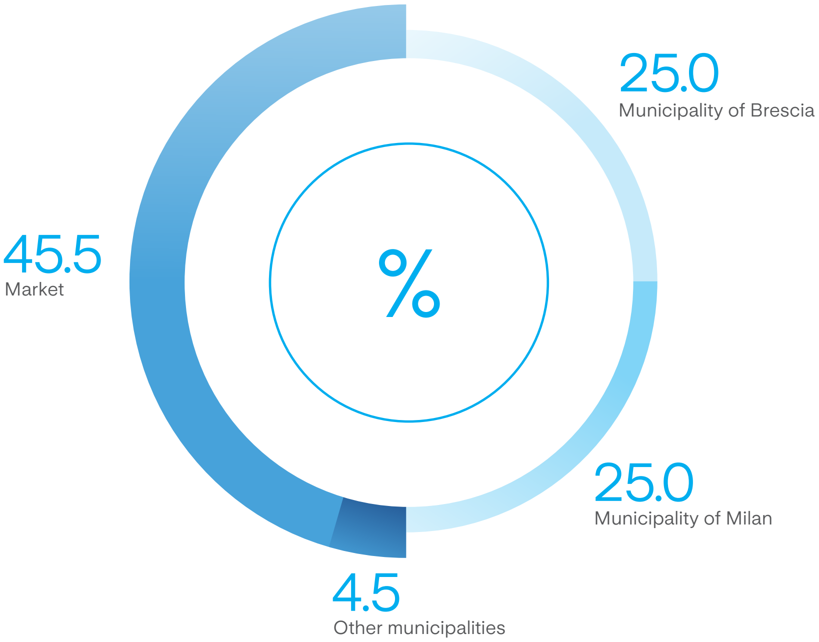
(*) Price of gas of reference for the Italian market.
(**) EU Emissions Trading System.

Group's key operational indicators

	12 31 2023	12 31 2022
Generation and Trading		
Thermoelectric production (GWh)	9,134	15,636
Hydroelectric production (GWh)	3,743	2,729
Photovoltaic and wind production (GWh)	806	638
Electricity sold to wholesale customers (GWh)	10,217	14,791
Electricity sold on the Power Exchange (GWh)	13,561	18,726
Market		
Electricity sold to retail customers (GWh)	22,964	20,737
POD Electricity (#/1000)	1,935	1,491
of which POD Electricity Free Market	*1,307*	*1,128*
Gas sold to retail customers (Mcm)	3,032	2,677
PDR Gas (#/1000)	1,555	1,579
of which PDR Gas Free Market	*1,178*	*1,043*
Waste		
Waste collected (Kton)	1,787	1,785
Residents served (#/1000)	3,928	3,965
Waste disposed of (Kton)	3,640	3,368
Electricity sold by waste-to-energy (GWh)	2,071	2,121
Smart Infrastructures		
Electricity distributed (GWh)	10,882	11,238
Gas distributed (Mcm)	2,503	2,726
Water distributed (Mcm)	69	75
RAB Electricity (M€)	953	827
RAB Gas (M€)	1,594	1,498
RAB Water Cycle (M€)	457	399
Heat sales (GWht)	2,898	2,894
Cogeneration production (GWh)	726	421

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.

	12 31 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)	-	-

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

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

Market capitalisation at December 29, 2023 (millions of euro):	5,824
Share capital at December 29, 2023 (shares):	3,132,905,277
Price at December 29, 2023 (€/share)	1.86

	2023
Average market cap (millions of euro)	5,108
Average daily volumes (shares)	9,834,571
Average price (€/share)	1.63
Maximum price (€/share)	1.99
Minimum price (€/share)	1.27

Source: Bloomberg.

A2A stock is also traded on the following platforms: Aquis, CBOE, Equiduct, ITG Posit, LSE OTC, 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
S&P Global Dividend Aristocrats

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.

In 2023 A2A obtained the following ESG ratings:

Assessment	Rating ESG
CDP Climate Change	B
CDP Water	A-
FTSE ESG Rating	3.8/5
ISS ESG	B-
MSCI	BBB
Refinitiv	B+
Standard Ethics	EE+
S&P CSA	67/100
Sustainalytics	21.3/40
Vigeo	61/100

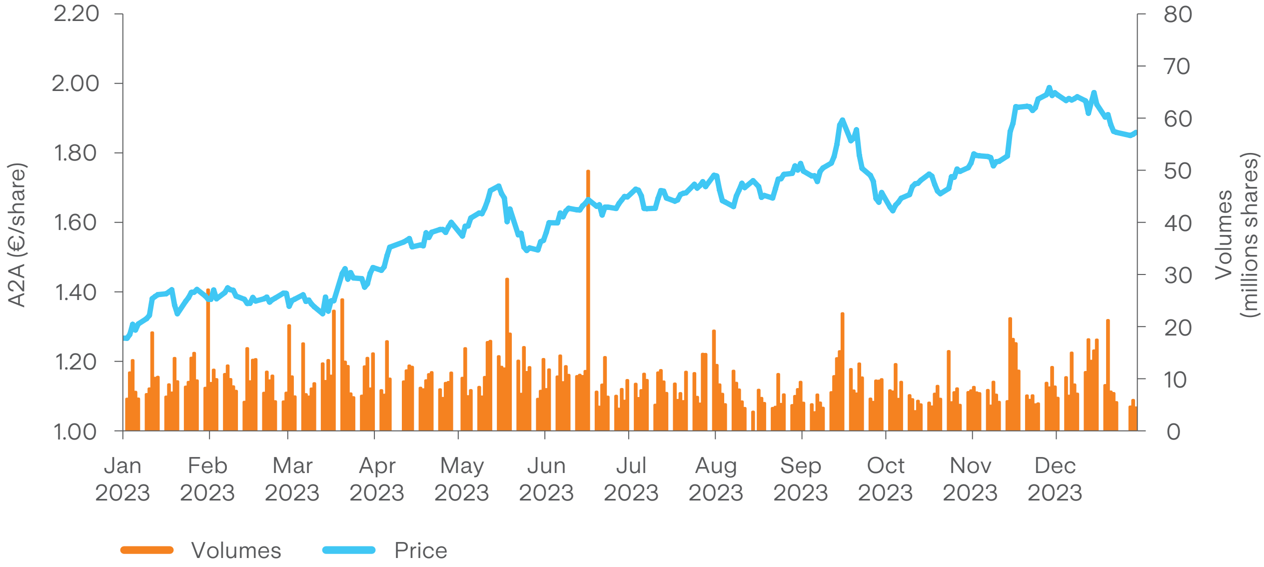
Debt Rating

		Current
Standard & Poor's	M/L Term Rating	BBB
	Short Term Rating	A-2
	Outlook	Stable
Moody's	M/L Term Rating	Baa2
	Outlook	Stable

Source: Rating Agencies.

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

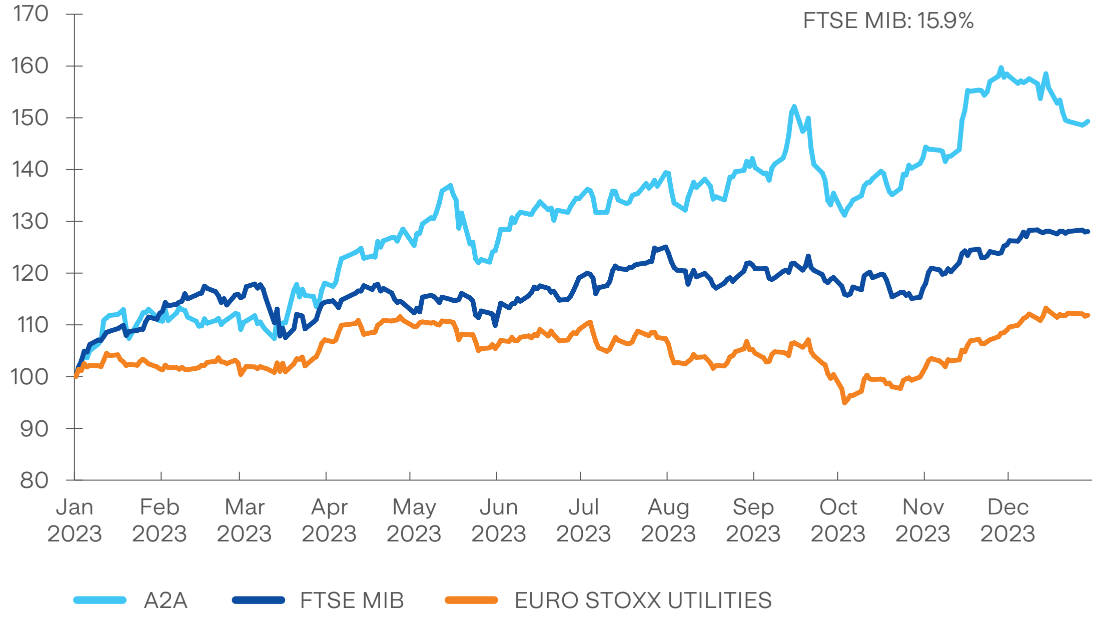
A2A: price and volumes



A2A vs FTSE MIB and EURO STOXX UTILITIES

(Price 30th December 2022 = 100)

Historical volatility in 2023
A2A: 21.9%
FTSE MIB: 15.9%



Source: Bloomberg.

European stock markets closed 2023 with significant growth: CAC 40 +16.5%, DAX +20.3%, IBEX +22.8%. In the US, the Nasdaq (+43.4%) reached record levels, supported by big tech and AI-related topics, while the S&P 500 (+19%) was more in line with European markets. Slightly positive was the London stock exchange (FTSE 100 +3.8%), sharply down was the Chinese stock exchange (CSI 300 -11.4%).

The year was marked by the continuation of restrictive monetary policies by the major central banks: in particular, the ECB raised rates by 200bps (from 2.5% to 4.5%, last increase in September), the Fed by 150bps (from 3.875% to 5.375%, last increase in August).

The effects of these policies, together with the normalization of energy commodity prices, led to a gradual slowdown in inflation (Eurozone from +9.2% yoy in December 2022 to +2.9% in December 2023, Italy from +11.2% to +0.6%), from which equity markets benefited, especially in the first half of the year.

The FTSE MIB recorded the best annual performance in Europe (+28.0%), breaking through the 30,000-point threshold for the first time since 2008.

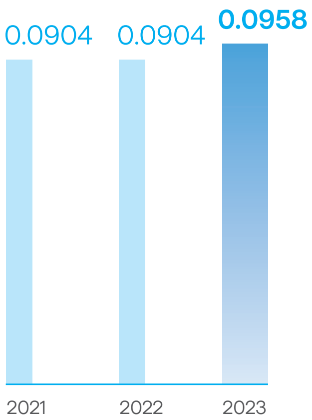
The Italian utilities sector recorded an annual increase of +26.8%, outperforming the euro area sector index (11.9%) thanks to the normalization of the energy scenario and the gradual stabilization of interest rates.

The A2A share rose by 49.3% year-on-year to close 2023 at 1.86 euro/share, after having reached the highest level since autumn 2008 in November (around 2 euro). Market capitalization at the end of the year was over 5.8 billion euro.

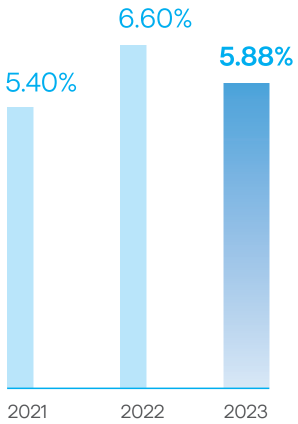
The share price's growth, which exceeded that of the benchmark indices and other companies in the sector, was driven by the positive reception of interim results, significant upward revisions to 2023 guidance, and an improved outlook on corporate debt by Standard & Poor's and Moody's.

1.7
Alternative Performance Indicators (APM)

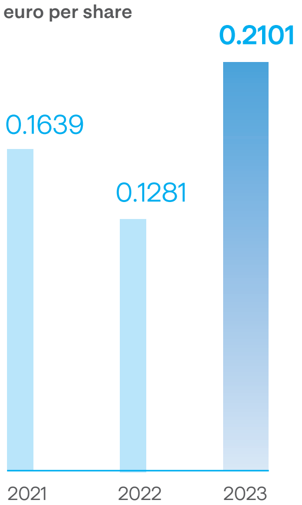
Dividend
euro per share



Dividend Yield

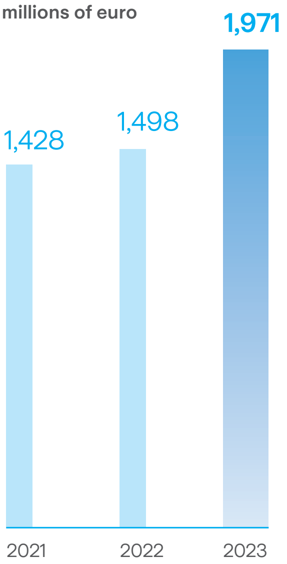


Earnings per share
euro per share



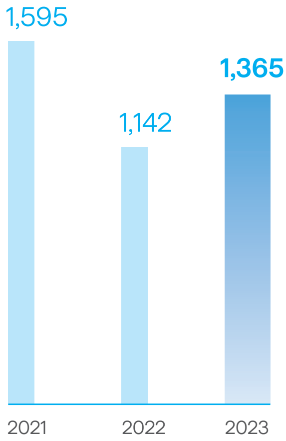
Gross Operating Income

millions of euro



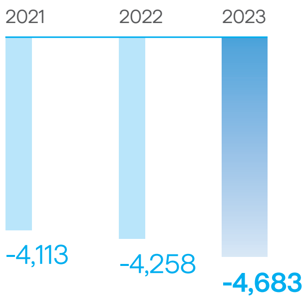
Net Investments

millions of euro



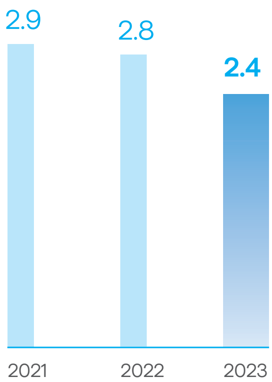
Net Financial Position

millions of euro

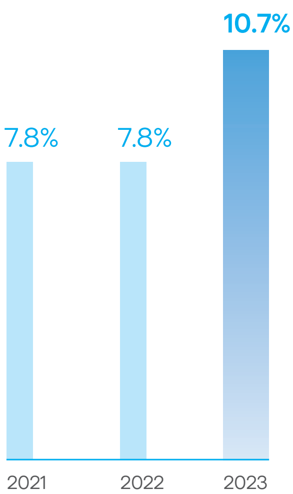


Net Financial Position/EBITDA

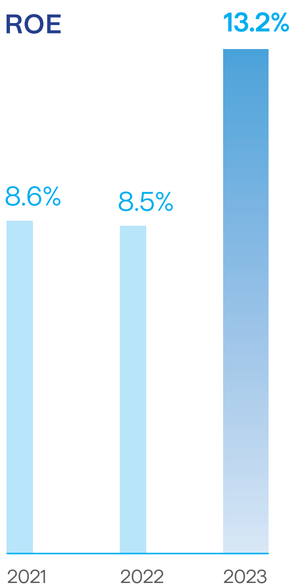
millions of euro



ROI



ROE



Alternative Performance Measures (APM)

In this Report on Operations, a number of Alternative Performance Measures (APM) have been used that are different from the financial indicators expressly provided for by the international accounting standards IFRS-EU adopted by the Group.

These alternative measures are used by the A2A Group in order to more effectively submit information on the profitability of the business in which it operates as well as on the financial situation, useful to improve the overall capacity to assess financial and equity performance.

These indicators are shown in the "Summary of results and financial position of the A2A Group". For the Income Statement and the Balance Sheet, the comparative values refer to December 31, 2022.

With reference to alternative indicators, on December 3, 2015, Consob issued Communication no. 92543/15, which transposes the Guidelines on the use and presentation of Alternative Performance Measures as part of regulated financial information, issued on October 3, 2015 by the European Securities and Markets Authority (ESMA). These Guidelines - which have updated the CESR Recommendation on Alternative Performance Measures (CESR/05 - 178b) - are intended to promote the usefulness and transparency of alternative indicators to improve their comparability, reliability and understanding.

On March 4, 2021, ESMA also published a new version of its Guidelines on disclosure requirements pursuant to the prospectus regulation (ESMA/32-382-1138), applicable from May 5, 2021 and updating the previous CESR Recommendations (ESMA/2013/319), with the aim of providing issuers with indications relating to the assessment of relevant information to be included in the financial disclosure.

In accordance with the Guidelines, the descriptions, content and bases of calculation used for the construction of the Alternative Performance Measures adopted by the Group are described below.

Gross operating margin

Gross operating margin is an alternative indicator of operating performance, calculated as the sum of "Net operating income" plus "Depreciation, amortization, provisions and write-downs".

This APM is used by the A2A Group as financial target in presentations both within the Group (Business Plans) and external (presentations to financial analysts and investors) and represents a useful measure to assess the operating performance of the Group (both as a whole and in terms of individual Business Unit), also through a comparison between the operating results of the reporting period with those relating to previous periods or years. This indicator also allows conducting analyses on operational trends and measure performance in terms of operational efficiency over time.

Result from non-recurring transactions

The **Result from non-recurring transactions** is an alternative performance measure designed to highlight the capital gains/losses arising from the valuation at fair value of non-current assets sold and the results from the sale of equity investments in unconsolidated subsidiaries and associated companies and other non-operating income/expenses.

This measure is positioned 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.

Net fixed capital

Net fixed capital is determined as the algebraic sum of:

- tangible assets;
- intangible assets;
- capex accounted for using the equity method and other non-current financial assets;
- other non-current assets and liabilities;
- deferred tax assets and deferred tax liabilities;
- provisions for risks, charges and liabilities for landfills;
- employee benefits.

This APM is used by the A2A Group as financial target in presentations both within the Group (Business Plans) and external (presentations to financial analysts and investors) and represents a useful measure of the net fixed assets of the Group as a whole, also through the comparison between the reporting period with those relating to previous periods or years.

This indicator also allows conducting analyses on operational trends and measure performance in terms of operational efficiency over time.

Net Working Capital and Other Current Assets/Liabilities

Net Working Capital is determined as the algebraic sum of:

- inventories;
- trade receivables;
- trade payables;

Other current assets/liabilities include:

- other current assets;
- other current liabilities;
- current tax assets/tax liabilities.

This APM is used by the A2A Group as financial target in presentations both within the Group (Business Plans) and external (presentations to financial analysts and investors) and represents a useful measure of the ability to generate cash flow from operations within a period of twelve months, also through the comparison between the reporting period with those relating to previous periods or years.

This indicator also allows conducting analyses on operational trends and measure performance in terms of operational efficiency over time.

Invested capital/ Net invested capital

Invested capital/Net invested capital is calculated as the sum of Net fixed capital, Net working capital and Assets/Liabilities held for sale.

This APM is used by the A2A Group as the financial target in presentations both within the Group (Business Plans) and external (presentations to financial analysts and investors); it represents a useful measure for the evaluation of total net assets, both current and fixed.

Sources of funds

Sources of funds are calculated by adding “Shareholders’ Equity” and “Total Net Financial Position”.

This APM is used by the A2A Group as financial target in presentations both within the Group (Business Plans) and external (presentations to financial analysts and investors) and represents the various sources by means of which the A2A Group is financed and the degree of autonomy that the A2A Group has in comparison with third party capital. This indicator also allows measuring the financial strength of the A2A Group.

Net financial position/Net debt

Net financial position/Net financial debt is an indicator of the financial structure, calculated as the sum of net financial position beyond one year and net financial position within one year. Specifically, total net financial position beyond one year is obtained from the algebraic sum of:

- Total medium and long-term debt: the item includes the non-current portion of bonds, bank loans, financial leasing and other non-current liabilities; Pursuant to the new ESMA recommendations, this item should also include the non-current portion of trade payables and other non-interest-bearing payables with a significant implicit financing component (payables with maturities of over 12 months);
- Total medium and long-term financial receivables: this item includes Non-current financial assets (including those with related parties) and Other non-current assets.

The net financial position within one year is derived from the algebraic sum of:

- Total short-term debt: this item includes the portion due within twelve months of bonds, bank loans, financial leasing, current financial liabilities to related parties and other current liabilities;
- Total short-term financial receivables: this item includes Other current financial assets (including to related parties) and Other current assets;
- Cash and cash equivalents and Cash and cash equivalents included in assets held for sale.

This APM is used by the A2A Group as financial target in presentations both within the Group (Business Plans) and external (presentations to financial analysts and investors) and is useful for the purposes of measuring the Group's financial debt, also through the comparison between the reporting period with those relating to previous periods or years.

The A2A Group's net financial position is calculated in accordance with Recommendations ESMA/32-382-1138 of March 4, 2021.

Capex in tangible and intangible assets

Investments in tangible and intangible assets are extrapolated from the information contained in the Notes of the Balance Sheet.

This APM is used by the A2A Group as financial target in presentations both within the Group (Business Plans) and external (presentations to financial analysts and investors) and is a useful measure of the resources used in the maintenance and development of the investments of the A2A Group (as a whole and in terms of individual Business Unit), also through the comparison between the reporting period with those relating to previous periods or years. This allows the A2A Group to conduct analyses on investment trends and measure performance in terms of operational efficiency over time.

Investors should not place undue reliance on these APM and should not consider all APM as: (i) an alternative to operating or net profit as calculated in accordance with IFRS; (ii) an assessment of the Group's ability to meet cash needs alternative to as deduced from the cash flow from operating, investing or financing activities (as determined in accordance with IFRS); or (iii) an alternative to any other performance measure provided by IFRS.

These Alternative Performance Measures derive from the historical financial information of the A2A Group and are not intended to provide indications relating to future financial performance, financial position or cash flow of the Group. Moreover, these APM were calculated uniformly for all periods.

Special Items

Special Items are non-recurring events that occurred during the year and had an effect on the consolidated income statement

Ordinary Net Result (Ordinary Net Profit)

The **Ordinary Net Result** is calculated by excluding the impact of Special Items from each item in the Income Statement.

ROI

ROI, or return on net invested capital, is the ratio of net operating margin to net invested capital. It aims to measure the ability to generate wealth through operations and thus to remunerate equity and debt capital.

ROE

ROE, i.e. return on equity, is the ratio of ordinary net result to equity. It is intended to measure the profitability obtained by risk investors.

2

Sustainability and sustainable finance

2.1
Sustainability and sustainable finance

The A2A business model seeks to create shared sustainable value for the company over time and for its reference community. The objective of the model is to make a concrete contribution to the achievement of 11 of the 17 Sustainable Development Goals of the UN 2030 Agenda, enhancing the six capitals (Financial, Manufacturing, Natural, Human, Intellectual, Relational) on which the organization depends to ensure its services. Through the Integrated Report, the Group has for years reported annually on this value creation and on the commitments made with a view to sustainability.

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 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. Furthermore, in anticipation of the regulatory changes to be introduced by the Corporate Sustainability Reporting Directive (CSRD). During 2023, the methodology of the financial materiality analysis was refined to be more in line with the requirements of the new European Reporting Standards (ESRS), which will become mandatory as of FY 2024 reporting. During 2024, further steps will be taken to achieve full alignment with the new European regulations. In addition, for the first time, the KPIs required by EU Regulation 2020/852 - Taxonomy of Sustainable Investments - for activities aligned with climate change mitigation and adaptation objectives were represented in the disclosure.

The Group's Integrated Report was awarded at the fifty-ninth edition of the "Oscar di Bilancio" (Financial Statements Award), an initiative promoted by FERPI, in collaboration with Borsa Italiana and Bocconi University. The Integrated Report was recognized as the winner of the Special "Integrated Reporting" Award for the second year running, as it is "*mature and consolidated and also strongly adheres to the International Framework. With a clear focus on continuous improvement by the company, information connectivity, strategic focus and attention to governance and its impact on value creation are excellent. Risk analysis is excellent. It is balanced and easy to read.*" Furthermore, the document has obtained recognition as part of the second edition of the Sustainability Report Award, the initiative promoted by Corriere della Sera and Buone Notizie newspapers 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. Lastly, 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 wanted to reaffirm its commitment to decarbonization. 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. In 2023, 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: South Lombardy (former LGH area) and Monza-Brianza, for a total of eleven stages.

Thanks to this engagement program, 29 initiatives dedicated to the sustainable development of local realities were implemented in 2023 with the commitment of 18 internal Group structures.

In order to support a sustainable value chain, through the internal ESG supplier qualification platform, it was possible to develop, together with trade associations and suppliers, a vademecum useful for companies to achieve significant results in the process of integrating sustainability into their business models. As part of the same program, a SWG survey supported by A2A was carried out in 6 territories in northern Italy to analyze the relationship between specific local realities and sustainability. The results were shared and discussed with stakeholders with the aim of disseminating targeted advice and good practice among citizens in each geographical area involved.

The engagement process also led to the establishment of the Sustainable Consumption Advisory Board for the cities of Milan, Brescia and Bergamo, an initiative dedicated to the major urban areas where the Group is present. The work was attended by the main stakeholders of the cities concerned, including Entities and Associations. The Advisory Board defined priorities and actions for sustainable consumption by citizens and businesses, collected in the city's Sustainable Consumption Charter, which sets out the principles for a transition in the local context.

At each Forum, the 2022 territorial Sustainability Reports were presented, in order to report on the Group's activities in the respective geographical areas of reference.

Considering national stakeholder engagement activities, in 2023, the Group developed the initiative: "Life Talks". The objective of the format, which offers a series of conferences, 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 a focus on the resource "water"; the second event, dedicated to the environmental element, took place on November 23. The topics were discussed in depth with industry experts, researchers, scientists and key opinion leaders. Each event was accompanied by the release of the conference proceedings and a podcast series aimed at a wider audience.

During the first half of 2023, educational activities dedicated to schools continued in line with as planned for the 2022/23 school year. In the second half-year, the educational offer for the 2023/24 school year was prepared and launched.

By June, all national and territorial educational projects for all school levels were completed. 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 addition, the annual cycle of webinar meetings for teachers was renewed for the new school year.

The 40-hour certified digital path of PCTO (Paths for Transversal Skills and Orientation) launched for 2022/23 and dedicated to high schools, ended in July and restarted continuously in September for the following school year.

In addition, two new virtual plant tours were published in 2023, dedicated respectively to the Brescia waste-to-energy plant and to the discovery of renewable energies: wind power and photovoltaics. Finally, a guidebook was published for teachers on topics related to the circular economy and energy transition.

Governance/Finance

In 2023, 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, reconfirmed the A2A Corporate Rating to "EE+" with "Positive" outlook, positioning A2A as the company in its sector with the highest rating.

In the last quarter of 2023, the Group saw its MSCI rating rise from BB to BBB, consolidating its position in the reference scenario. Furthermore, the efforts made during 2022 and 2023 were recognized by the ESG Sustainalytics index, which raised the Group's rating from 3.7 to 3.8, confirming its alignment with best practices.

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.

During the second half-year, A2A subsequently signed a number of Use of Proceeds (Green Loan) loans, including a new loan with the European Investment Bank (EIB) in the amount of 200 million euro. This financing, in line with REPowerEU, supports the A2A commitment to promote the electrification of consumption and the use of energy from renewable sources, to the benefit of the country's decarbonization. In fact, the A2A plan of action related to the financing includes the upgrading of its medium-voltage network with more than 200 km of new lines and the renovation of 247 km of existing network, in addition to approximately 86 km of new low-voltage lines and the replacement of 152 km of existing low-voltage network. The Group also plans to build a new primary substation and 286 new secondary substations, to renovate and expand 12 primary substations already in operation, and to modernize 423 active secondary substations.

As a result of these operations, the share of ESG debt in total gross debt at December 31, 2023 was 70%.

In addition, A2A further expanded its range of sustainable instruments by extending it to a KPI-linked insurance policy and a credit line for green guarantees. The new Pollution insurance solution is linked to the achievement of seven sustainability goals concerning the management of environmental risks. These include: number of audits related to the environmental component, percentage of plants monitored with respect to potential interference with biodiversity, and some specific KPIs related to prevention activities and aimed at obtaining the Protected Environment certification. The new credit line for green guarantees allows guarantees to be issued in a green format, classified according to the eligibility criteria of the underlying projects based on A2A Sustainable Finance Framework, the EU Taxonomy of Sustainable Activities and the relevant international guidelines (including the UN Sustainable Development Goals Guidelines, the Green Bond Principles issued by ICMA and the Green Loan Principles issued by LSTA and LMA).

Finally, A2A considers it crucial to involve all relevant stakeholders, including investors, banking partners, institutions and companies in its sector, on the subject of sustainable finance, to compare and share best market practices in order to accelerate concrete action aimed at market development. Based on this approach, A2A continues to be a member of the Corporate Forum on Sustainable Finance (CFSF) from 2019 and of the Nasdaq Sustainable Bond Network (NSBN) from 2023. In addition, in January 2024, A2A became a member of the International Capital Market Association (ICMA).

3

Consolidated results and report on operations

3.1

Summary of results, assets and liabilities and financial position

Results

It is noted that the consolidation scope as at December 31, 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;
- the incorporation on April 11, 2023 by A2A S.p.A. of A2A Services & Real Estate S.p.A. (formerly A2A Servizi S.r.l.), which is consolidated on a line-by-line basis, and contribution by A2A S.p.A. on October 1, 2023. (81.33%), Acinque S.p.A. (10.29%) and Ambiente Energia Brianza S.p.A. (8.38%), of a BU relating to employee, customer, supplier and building services;
- the acquisition by A2A Rinnovabili S.p.A. of 100% of Juwi Development 12 S.r.l. and Juwi Development 13 S.r.l. with consequent line-by-line consolidation;
- the incorporation of the companies R2R 01 S.r.l., R2R 02 S.r.l., R2R 03 S.r.l. and R2R 04 S.r.l., by R2R S.r.l., which owns 100% of it, consolidated on a line-by-line basis;
- the incorporation of the company Mogorella S.r.l. by A2A Rinnovabili S.p.A., which owns 100% of it, consolidated on a line-by-line basis;
- the sale by A2A Ambiente S.p.A. of 80% of Bioenergia Gualdo S.r.l., 55% of Energia Anagni S.r.l. and its 100% owned subsidiary Bionergia Roccasecca S.r.l., with the resulting exit from the scope of consolidation.

Moreover, the economic figures at December 31, 2023 are not consistent with 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.

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 December 31, 2022 have been restated.

The results of the A2A Group at December 31, 2023 are set out below together with comparative figures for the previous year.

millions of euro	01 01 2023 12 31 2023	01 01 2022 12 31 2022 Restated	Change	% 2023/2022
Revenues	**14,758**	**23,156**	**(8,398)**	**(36.3%)**
of which:				
- Revenues from the sale of goods and services	*14,492*	*22,938*	*(8,446)*	*(36.8%)*
- Other operating income	*266*	*218*	*48*	*22.0%*
Operating expenses	(11,972)	(20,893)	8,921	(42.7%)
Labour costs	(815)	(765)	(50)	6.5%
Gross Operating Income - EBITDA	**1,971**	**1,498**	**473**	**31.6%**
Depreciation, amortization and write-downs	(803)	(724)	(79)	10.9%
Provisions	(151)	(92)	(59)	64.1%
Net Operating Income - EBIT	**1,017**	**682**	**335**	**49.1%**
Result from non-recurring transactions	**2**	**157**	**(155)**	**(98.7%)**
Net financial expenses	(139)	(90)	(49)	54.4%
Affiliates	-	2	(2)	(100%)
Result from disposal of other shareholdings	(1)	-	(1)	n.s.
Result before taxes	**879**	**751**	**128**	**17.0%**
Income taxes	(199)	(344)	145	(42.2%)
Result after taxes from operating activities	**680**	**407**	**273**	**67.1%**
Net result from discontinued operations	3	41	(38)	(92.7%)
Minorities	(24)	(47)	23	(48.9%)
Group result of the year	**659**	**401**	**258**	**64.3%**

In 2023, Group **Revenues** amounted to 14,758 million euro, down 36.3% compared to the previous year (23,156 million euro). More than 80% of the change is attributable to falling energy prices and the remainder to lower volumes sold and brokered in the wholesale markets, partially offset by higher quantities sold in the retail sector.

Operating expenses amounted to 11,972 million euro, down 42.7% year-on-year: in line with the revenue trend, the contraction is related to lower raw material procurement costs due to lower commodity prices.

Labour costs increased by 50 million euro (+6.5%), amounting to 815 million euro: about 50% of the change is related to the higher number of FTE (Full-Time Equivalent) in 2023 compared to the previous year (+402 FTE, +3%) as a result of the acquisition of new companies, the awarding of tenders in the urban hygiene sector and recruitment for the start-up of new plants and the expansion of certain facilities and business areas, in line with the Group's development objectives. The remainder of the increase is mainly attributable to salary increases for contractual renewals and remuneration policy.

EBITDA equaled 1,971 million euro, an increase of 31.6%, +473 million compared to the previous year (1,498 million euro).

Net of non-recurring items (+41 million euro in 2023, +10 million euro in 2022), the Gross Operating Margin amounted to 1,930 million euro, an increase of 29.7% compared to 2022 (1,488 million euro) thanks to the excellent performance of the Generation and Trading Business Unit and the Market Business Unit.

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

millions of euro	12 31 2023	12 31 2022 Restated	Delta	Delta %
Generation and Trading	829	554	275	49.6%
Market	299	125	174	n.s.
Waste	375	359	16	4.5%
Smart Infrastructures	534	512	22	4.3%
Corporate	(66)	(52)	(14)	n.s.
Total	**1,971**	**1,498**	**473**	**31.6%**

The Gross Operating Margin of the Generation and Trading Business Unit amounted to 829 million euro, an increase of 49.6%, +275 million euro compared to 2022. Net of the non-recurring components recorded in the year in question (+37 million euro) and in the previous year (-9 million euro), the Ordinary EBITDA increased by 229 million euro.

The positive change is mainly attributable to:

- positive effects resulting from the increased hydraulicity that the year under review benefited from compared to the previous year, which was penalized by a severe drought that had led to a significant drop in hydroelectric production and consequently, where necessary, a very costly recourse to the spot market in a context of rising prices;
- the contribution of production from other renewable sources, in particular wind power plants;
- effective hedging strategies, which, at the same time as the conclusion of the measure of the support decree ter (two-way compensation mechanism on the price of electricity fed in for RES plants), made it possible to offset the reduction in the price of energy commodities in the year under review.

The positive impacts were partly offset by a contraction in margins on the ancillary services markets (MSD) both due to fewer requests from Terna and a lower valorization of quantities, the lower contribution of combined cycle thermoelectric production and higher costs of structure (labor and costs for maintenance and operation).

EBITDA of the Market Business Unit equaled 299 million euro (125 million euro at December 31, 2022).

Net of non-recurring items (-18 million euro in 2023 and +2 million euro in 2022), Ordinary EBITDA increased by 194 million euro.

The growth in margins for 2023 compared to the previous year was attributable to:

- higher volumes of electricity sold in the safeguarded market;
- growth in volumes sold to the large customer segment, particularly gas;
- increase in the customer base of the mass market segment;
- increase in unit margins, also thanks to the full recovery of the contraction recorded in 2022 due to the different temporal distribution of the margins of fixed price sales, which confirmed the overall contractual margin on an annual or biennial basis.

These positive effects made it possible to absorb the higher charges related to retention actions, activated by the Group during 2023 on its customer base, and the increase in operating costs to support customer development and management (particularly ICT costs, indirect channels, marketing and communication).

In 2023, the Waste Business Unit recorded revenues of 1,458 million euro, an increase of 2.5% compared to the previous year (1,422 million euro at December 31, 2022): the increase in revenues from the sale of electricity from waste-to-energy plants more than compensated for the decrease in revenues from paper disposal resulting from the drop in prices recorded in 2023 compared to the previous year.

The EBITDA of the Waste Business Unit equaled 375 million euro (359 million euro at December 31, 2022).

Net of the non-recurring components recorded in the two comparison periods (+3 million euro in 2023 and +9 million euro in 2022), the Ordinary Gross Operating Margin stands at 372 million euro, an increase of 22 million euro compared to the previous year (+6.3%).

This result was determined by:

- +8 million euro related to the Collection segment mainly due to lower costs for the disposal of the organic fraction of waste and lower expenses for vehicle maintenance and fuel, which more than offset the increase in personnel costs;
- +14 million euro related to Municipal Waste Treatment Plants mainly due to the increase in electricity revenues from waste-to-energy plants and the higher margins of biomass plants (Sant'Agata di Puglia), despite the increase in raw material costs.

The Gross Operating Margin of the Smart Infrastructures Business Unit in 2023 was 534 million euro (512 million euro at December 31, 2022).

Net of non-recurring items (+19 million euro in 2023; +17 million euro in the previous year), the Business Unit's ordinary Gross Operating Margin was 515 million euro, up 20 million euro compared to 2022.

The change in margins is distributed as follows:

- +17 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, and higher connection contributions;
- +11 million euro relating to the gas distribution network due to an increase in the restriction on revenues admitted for regulatory purposes due to an increase in investments and inflation;
- +15 million euro related to the water cycle attributable to the decrease in electricity costs and the increase in regulated revenues;
- -17 million euro relating to heat due to lower volumes of district heating sold by companies in the sector with the same perimeter and higher operating costs. This contraction in margins was partially offset by the contribution of the new company A2A Airport and the marginality of heat management related to the superbonus business;
- -6 million euro related to the public lighting segment due to the adjustment of fees to changes in energy costs.

“Depreciation, amortization, provisions and write-downs” totaled 954 million euro (816 million euro at December 31, 2022), representing an increase of 138 million euro.

“Depreciation, amortization and write-downs” amounted to 803 million euro (724 million euro as at December 31, 2022).

Amortization of intangible assets amounted to 278 million euro (231 million euro at December 31, 2022). The item includes increased amortization of 47 million euro relating to the integrated water service, gas distribution and metering, implementation of information systems and new customer lists for 42 million euro and 5 million euro for the change in the scope of consolidation.

Depreciation and amortisation of tangible assets, which amounted to 523 million euro, increased by 32 million euro compared to December 31, 2022 and mainly related to increases in investments and changes in the scope of consolidation. In particular:

- higher depreciation of 15 million euro, mainly relating to the investments which went into production after December 31, 2022;
- higher depreciation of 17 million euro, relating to the first-time consolidations;
- higher depreciation of 3 million euro for rights of use;
- higher depreciation of 3 million euro related to the new appraisals and change in discount and inflation rates on the closure/post closure provisions for landfills and decommissioning;
- lower depreciation of 6 million euro related to the disinvestment plan for the assets of the Linea 1 waste-to-energy treatment and storage plant in Parona and to some photovoltaic plants.

Write-downs for the year amounted to 2 million euro (2 million euro as at December 31, 2022) and mainly related to the cancellation of projects no longer in the company’s core business.

“Provisions for risks” had a net effect of 68 million euro (net effect of 2 million euro at December 31, 2022) due to the provisions for the year of 80 million euro relating to the provision for derivation fees public water for 46 million euro, to provisions for closure and post-closure costs of landfills and decommissioning for 13 million euro, to provisions relating to compensation linked to delays in the management of active connection practices for 13 million euro and to other provisions for 8 million euro, adjusted for 12 million euro by surpluses mainly following the release of tax provisions, closure and post-closure expense provisions on landfills and other provisions.

The **“Bad debt provision”** amounted to 83 million euro (90 million euro at December 31, 2022).

As a result of these changes **“Net operating income”** amounted to 1,017 million euro (682 million euro for the year ended December 31, 2022).

The **“Result from non-recurring transactions”** amounted to 2 million euro (157 million euro at December 31, 2022) and refers to the capital gain deriving from the sale of land in the Bovisa area located in the City of Milan, while in the previous year, it referred to the sale of three properties located in Milan that took place in February 2022.

“Net financial expenses” amounted to 140 million euro (88 million euro at December 31, 2022) and showed a net increase of 52 million euro mainly due to increases in interest rates on bonds issued in the previous year (which in 2022 had started to accrue interest from the date of issue) and the 500 million euro bond issue carried out during the first quarter of 2023, as well as the increase in financial expenses to credit institutions mainly attributable to the rise in the interest rate curve, which was offset by the remuneration, at a variable rate, of liquidity that mitigated the interest rate risk on the Group’s variable and non-hedged debt.

The **“Affiliates”** was less 1 million euro, 2 million euro at December 31, 2022, and was mainly related to the positive valuation of the shareholdings held in some associated companies.

The **“Result from disposal of other shareholdings”** had a negative value of 1 million euro and derived from the effect of the disposal of the shareholding in Suncity Group.

“Income taxes” for the year amounted to 199 million euro (344 million euro at December 31, 2022). The decrease of 145 million euro, compared to the previous year, is mainly attributable to extraordinary taxes recognized in the previous year such as the extraordinary solidarity contribution expected for the year 2023, determined pursuant to article 1, paragraphs 115-119 of the Law December 29, 2022, no. 197 (Budget Law 2023) equal to a total of 117 million euro, as well as the extraordinary contribution based on Law Decree March 21, 2022, no. 21, converted into Law May 20, 2022, no. 51 (LD Taglia Prezzi) equal to a total of 5 million euro.

It should be noted that in the financial year under review, the right was exercised to opt for the “exemptive revaluation” regime which, based on the provisions of art. 15, paragraphs 10 et seq. of Decree Law no. 185/2008, provides for the recognition of the higher tax values of the controlling interests arising from the Purchase Price Allocation (PPA) process and recorded 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 55 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 3 million euro (41 million euro at December 31, 2022) and mainly refers to the sale relating to the Integrated Water Service to Acque Bresciane.

The **“Group result of the year”**, after the minorities of 24 million euro were deducted, was positive and amounted to 659 million euro (positive for 401 million euro at December 31, 2022).

Below is the income statement table with evidence of the special items that influenced both the result for the financial year 2023 and the result for the previous year, thus enabling a clearer representation of the performance of the core business.

millions of euro	01 01 2023 12 31 2023	01 01 2022 12 31 2022 Restated	Change	% 2023/2022
Revenues	**14,758**	**23,156**	**(8,398)**	**(36%)**
Operating expenses	(11,972)	(20,893)	8,921	(43%)
Labour costs	(815)	(765)	(50)	7%
Gross Operating Income - EBITDA	**1,971**	**1,498**	**473**	**32%**
Depreciation, amortization and write-downs	(803)	(724)	(79)	11%
Provisions for risks	(68)	(2)	(66)	n.s.
Provisions for credit risks	(83)	(90)	7	(8%)
Net Operating Income - EBIT	**1,017**	**682**	**335**	**49%**
Net financial charges	(139)	(90)	(49)	54%
Affiliates	-	2	(2)	(100%)
Result from disposal of other shareholdings	(1)	-	(1)	n.s.
Result before taxes	**877**	**594**	**283**	**48%**
Income tax expenses	(221)	(174)	(47)	27%
Net result from discontinued operations	3	7	(4)	(57%)
Minorities	(24)	(47)	23	(49%)
Ordinary Group Net Profit	**635**	**380**	**255**	**67%**
Special Items	24	21	3	14%
Group net result of the year	**659**	**401**	**258**	**64%**

The special items for the 2023 financial year amounting to 24 million euro refer to the tax effect of redemption, which, net of the payment of the substitute tax of 33 million euro, amounts to 22 million euro, and 2 million euro for gains on the sale of real estate.

The special items for the previous year amounted to 21 million euro and mainly referred to the net effect of gains generated by the sale of certain assets (sale of real estate and gas ATEM deemed non-strategic) in the amount of 143 million euro net of the tax effect, partially offset by charges for extraordinary contributions on the economic results of energy companies provided for by legislative measures (Price Cut Decree as per LD 21/2022 and Solidarity Contribution as per L.197/2022) in the amount of 122 million euro.

Balance sheet and financial position

For changes in the scope of consolidation at December 31, 2023, reference should be made to the section “Income statement” in this Summary of the A2A Group’s financial position, results of operations and cash flows.

Sources/uses statement

millions of euro	12 31 2023	12 31 2022	Change
Capital employed			
Net fixed capital	**9,567**	**8,849**	**718**
- Tangible assets	6,643	6,162	481
- Intangible assets	3,630	3,515	115
- Shareholdings and other non-current financial assets (*)	83	82	1
- Other non-current assets/liabilities (*)	(188)	(296)	108
- Deferred tax assets/liabilities	464	363	101
- Provisions for risks, charges and liabilities for landfills	(828)	(729)	(99)
- Employee benefits	(237)	(248)	11
of which with counter-entry to equity	*(98)*	*(112)*	
Net Working Capital and Other Current Assets/Liabilities	**(82)**	**(124)**	**42**
Net Working Capital	**(246)**	**(308)**	**62**
- Inventories	319	536	(217)
- Trade receivables	3,540	4,680	(1,140)
- Trade payables	(4,105)	(5,524)	1,419
Other current assets/liabilities	**164**	**184**	**(20)**
- Other current assets/liabilities (*)	193	283	(90)
- Current tax assets/tax liabilities	(29)	(99)	70
of which with counter-entry to equity	*(7)*	*27*	
Assets/liabilities held for sale (*)	**-**	**-**	**-**
of which with counter-entry to equity	*-*	*-*	
Total Capital employed	**9,485**	**8,725**	**760**
Sources of funds			
Equity	**4,802**	**4,467**	**335**
Total financial position after one year	5,571	5,834	(263)
Total financial position within one year	(888)	(1,576)	688
Total Net Financial Position	**4,683**	**4,258**	**425**
of which with counter-entry to equity	*-*	*(10)*	
Total Sources	**9,485**	**8,725**	**760**

(*) Excluding balances included in the net financial position.

Net fixed capital

The **"Net fixed capital"** amounted to 9,567 million euro, up by 718 million euro compared to December 31, 2022.

The main changes were related to:

- total investments of 1,376 million euro, of which 947 million euro in tangible assets and 429 million euro in intangible assets;
- contribution from the first 2023 consolidations on intangible assets in the amount of 22 million euro;
- ordinary amortisation/depreciation for the year for 801 million euro;
- net increase in Other non-current assets and liabilities of 108 euro million mainly due to the increase in receivables from Ecobonus, new security deposits from the Municipality of Milan, and the decrease in security deposits from customers;
- increase in deferred tax assets for 101 million euro; Contributing to this increase was the recognition of the higher tax values of certain 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 55 million euro, relating to off-balance-sheet deductions of the higher revalued values;
- increase in provisions for risks, charges and liabilities for landfills by 99 million euro;
- decrease in provisions for employee benefits for 11 million euro.

Net Working Capital and Other Current Assets/Liabilities

The **"Net Working Capital and Other Current Assets/Liabilities"** were negative and amounted to 82 million euro, up by 42 million euro compared to December 31, 2022.

The main changes were related to:

- decrease in trade payables of 1,419 million euro, mainly attributable to the dynamics of energy commodity prices, as well as an efficient Net Working Capital management policy;
- decrease in trade receivables of 1,140 million euro mainly attributable to the reduction in tariffs for the sale of electricity and gas that occurred during the year in the reference scenario;
- net decrease of 217 million euro in inventories, mainly fuel inventories, reflecting the decreasing trend observed during the year in the reference scenario;
- net increase in payables Cassa per i Servizi Energetici e Ambientali for 134 million euro;
- net decrease in current tax liabilities for 70 million euro;
- increase in receivables of 41 million euro for the sale of certain assets related to the water cycle;
- other increases in current assets of 3 million euro.

"Assets/liabilities held for sale" had no value as at December 31, 2023.

Consolidated **"Invested capital"** at December 31, 2023 amounted to 9,485 million euro and was financed by Equity for 4,802 million euro and the Net financial position for 4,683 million euro.

"Equity" amounted to 4,802 million euro and showed a positive change for a total of 335 million euro.

The net profit for the year generated a positive effect of 659 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 30 million euro and the net decrease in minority interests for 6 million euro also affected shareholders' equity.

The **"Consolidated Net Financial Position"** at December 31, 2023 amounted to 4,683 million euro (4,258 million euro as at December 31, 2022). The gross debt amounted to 6,362 million euro, down by 527 million euro compared to December 31, 2022. Cash and cash equivalents amounted to 1,629 million euro, down by 955 million euro. The other net financial assets/liabilities showed a positive balance of 50 million euro with a net decrease of 3 million euro as compared to December 31, 2022.

The fixed rate portion of the gross debt amounted to 87%. The duration is 5.7 years.

Change Consolidated Net Financial Position

The following table summarizes the changes in the Net Financial Position.

millions of euro	12 31 2023	12 31 2022
EBITDA	**1,971**	**1,498**
Changes Net Working Capital	(62)	909
Changes in Other assets/liabilities	(218)	(607)
Utilization of provisions, net taxes and net financial charges	(458)	(312)
Operating cash flow	**1,233**	**1,488**
Investments	(1,376)	(1,240)
Property disposals	-	221
Cash flow before dividend payment	**(143)**	**469**
Dividends	(283)	(283)
Net free cash flow	**(426)**	**186**
Change in scope	1	(331)
Change in Net Financial Position	**(425)**	**(145)**

During the year, the change in the Net Financial Position was negative and equal to 425 million euro. Operating cash flow was positive at 1,233 million euro, capital expenditure absorbed cash of 1,376 million euro. These changes, taking into account the change in working capital, payment of financial expenses and taxes, generated a negative cash flow of 143 million euro before dividend payments of 283 million euro and changes in the scope of consolidation of 1 million euro.

The payment of net financial charges, taxes and provisions absorbed cash of 458 million euro.

3.2
Significant events during the year

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.

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 equaled 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).

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 favor 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 50.000000112% 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.

New Chair of the Board of Directors and new appointments

On July 28, 2023, Marco Emilio Angelo Patuano resigned. In his replacement, the A2A Board of Directors of October 11 appointed:

- director Roberto Tasca as chair of the company;
- Mario Motta as a non-executive director of the Company. The new director, whose curriculum vitae is available at www.gruppoa2a.it, will remain in office until the next Meeting.

During the same meeting, the board of directors also assessed, ascertaining the existence of the following: (i) the independence requirements of Article 148 of the TUF (Consolidated Law on Finance) and the Corporate Governance Code for the non-executive director Mario Motta and (ii) the executive status for the Chair Roberto Tasca.

Lastly, the Board of Directors resolved on the new composition of the following Board committees:

- Esg and Local Relations Committee: Roberto Tasca (Chair), Vincenzo Cariello, Fabio Lavini and Elisabetta Pistis;
- Audit and Risk Committee: Alessandro Zunino (Chair), Elisabetta Bombana, Mario Motta and Maria Grazia Speranza;
- Remuneration and Appointments Committee: Susanna Dorigoni (Chair), Giovanni Comboni and Elisabetta Pistis.

The composition of the Related Parties Committee remains confirmed as follows: Vincenzo Cariello (Chair), Maria Elisa D'Amico and Maria Grazia Speranza.

Standard & Poor's confirmed the A2A long- and short-term rating at BBB/A-2, revising the outlook from "negative" to "stable"

On September 8, Standard & Poor's confirmed the A2A long/short-term rating at BBB/A-2, revising the outlook from "negative" to "stable". The change in outlook reflects the resilience of the A2A integrated and well-balanced business demonstrated during 2022 and early 2023, combined with careful financial discipline.

The revised outlook confirms the strong commitment of A2A to maintaining its current rating on its sustainable growth path.

Moody's confirms the Baa2 long-term rating and revises the outlook from "negative" to "stable"

On November 22, 2023, Moody's confirmed the A2A long-term rating at Baa2, revising the outlook from "negative" to "stable".

The decision follows the revision of the outlook from "negative" to "stable" of Italy's sovereign rating (Baa3) announced on November 17.

The rating confirmation reflects the resilience of the A2A integrated and well-balanced business, as well as the improvement in its operational and financial performance, thanks to a solid liquidity position combined with careful financial discipline.

This action confirms the strong commitment of A2A to maintaining its current rating on its sustainable growth path.

A2A is awarded six lots in the CONSIP tender for the supply of electricity to public bodies in seven Italian regions

A2A, through its subsidiary A2A Energia - a company active in the sale of electricity, gas and energy efficiency services - was awarded six lots in the CONSIP edition 21 tender for the supply of electricity to public bodies.

In October 2023, at the end of the tender procedure, CONSIP notified A2A Energia of the assignment of Lot 2 (Lombardy, provinces of Milan and Lodi), Lot 3 (Lombardy, excluding the provinces of Milan and Lodi), Lot 6 (Emilia Romagna), Lot 8 (Tuscany), Lot 9 (Umbria and Marche) and Lot 12 (Abruzzo and Molise). This is the seventh consecutive year that A2A Energia has been consistently and increasingly awarded lots in CONSIP tenders up to the 6 just awarded, and for the first time, it will provide coverage for the whole of Lombardy.

The allocation concerns a potential total volume of more than 3.8 TWh/year, of which up to 50% (1.9 TWh/year) is energy from renewable sources. The agreement will be activated, for those entities that request it, as of January 24, 2024 for the Emilia Romagna region, as of February 11, 2024 for Tuscany, Umbria and

Marche, and as of March 2, 2024 for Lombardy, Abruzzo and Molise. Individual supplies will last for 12 months.

With this further award, A2A consolidates its role as a national player for the supply of electricity and gas in all markets and to customers in all segments.

Significant events related to energy transition and sustainability

Obtaining a 200 million euro loan from the EIB to promote energy transition in Lombardy

In December, A2A was granted by the EIB, the European Investment Bank, a loan of 200 million euro in line with the REPowerEU, for the "extension and modernization of electricity distribution infrastructure in Lombardy" with the aim of "contributing to the achievement of national and European decarbonization targets through electrification of consumption". The financing is part of the additional 45 billion euro investments that the EIB has committed to support between 2022 and 2027 to promote the Italian objectives set out in the Integrated National Energy and Climate Plan and those of REPowerEU. The planned activities include the renewal and expansion of A2A electricity grids in order to allow the connection of new users (estimated at more than 40,000 by 2027) that are "strategic for the process of electrification of consumption and for a growing use of green energy produced from renewable sources that the Group wants to encourage". In fact, the A2A plan of action related to the financing includes the upgrading of its medium-voltage network with more than 200 km of new lines and the renovation of 247 km of existing network, in addition to approximately 86 km of new low-voltage lines and the replacement of 152 km of existing low-voltage network. The Group also plans to build a new primary substation and 286 new secondary substations, to renovate and expand 12 primary substations already in operation, and to modernize 423 active secondary substations.

Obtaining a 4.3 million euro grant from ARERA for 4 pilot projects on gas infrastructure

In December, the companies Unareti, LD Reti and RetiPiù obtained a total contribution of 4.3 million euro from the Regulatory Authority for Energy, Networks and the Environment for four experimental projects under Resolution 404/2022/R/gas "Pilot projects to optimize the management and use of infrastructures in the natural gas sector", in relation to the prospects for energy transition and decarbonization.

In particular, Unareti will implement a new management system based on artificial intelligence to reduce methane emissions from the network; it will also build new generators to recover the energy normally dissipated in the transition from the transport network to the distribution network.

LD Reti will test a system to maximize the production of a biomethane plant by feeding the excess into the grid.

RetiPiù will launch a project to reduce the impact of methane emissions from the distribution network through innovative monitoring tools that enable their early detection.

The admission of all proposals submitted to the Arera incentive mechanism confirms the validity of the Group's projects for the development of systems and infrastructures for the country's ecological transition, in line with its industrial strategy focused on two pillars: energy transition and circular economy.

Water, Arera rewards A2A Group's service quality with 4 million euro

The A2A Group's water service received an important quality award from ARERA in October. An economic award of more than 4 million euro that will be reinvested in the area to further improve water infrastructure and service management.

Alongside tariff regulation, ARERA, the Regulatory Authority for Energy, Networks and the Environment, has in fact also set up a technical and contractual quality measurement system for the management of the integrated water service, which provides for the monitoring of certain indicators (including water losses, hours of service interruption, water quality, etc.) associated with bonuses and penalties. With its recent Resolutions 477/2023 and 476/2023, ARERA implemented this mechanism with reference to the performance achieved in the two-year period 2020-2021.

The bonuses are paid from a specific fund set up at the Cassa per i Servizi Energetici e Ambientali (CSEA) and funded by a component (UI2) paid by citizens in their water bills: the amount of resources collected and distributed in the two-year period 2020-2021 is 130 million euro for technical quality and 21.6 million euro for contractual quality.

In particular:

- A2A Ciclo Idrico received awards totaling 1.7 million euro, divided equally between technical quality and contractual quality; the company was ranked 17th in the general classification that assesses all macro-indicators, at least one of which is in class A, and was awarded half a million euro just for the containment of water losses, which were reduced by 4% compared to 2018 values.
- The performance of Lereti, a company of the Acinque Group, was also significant, with bonuses totaling 2 million euro, mainly due to the results achieved in Como.

Compared to the previous data collection, which assessed the two-year period 2018-2019, the A2A Group's operators showed improved performance in all technical quality indicators.

This is an acknowledgement that testifies to the virtuous investment path implemented by A2A Ciclo Idrico, which has seen expenditure per inhabitant rise from 42 euro/inhabitant in 2017 to 104 euro/inhabitant in 2022, excluding grants received, which reached 117 euro/inhabitant, twice the national average.

New agreement for the construction of two 17.5 MWp photovoltaic plants in Veneto

In August, A2A and Juwi entered into a collaboration in the photovoltaic sector that provides for the purchase by A2A Rinnovabili - the Group's company dedicated to the development and management of green plants - of 100% of Juwi Development 12 S.r.l. and Juwi Development 13 S.r.l., companies that have obtained authorizations for the construction and operation of two solar plants in the municipalities of Boara Pisani (Padua) and Porto Viro (Rovigo).

The plants will have an installed capacity of about 17.5 MWp and will produce more than 25 GWh per year to meet the electricity needs of about 9,000 households.

Thanks to the construction of this new infrastructure, it will be possible to reduce the consumption of natural gas by about 5 million cubic metres per year and avoid the emission into the atmosphere of about 10,500 tons of CO2.

A2A and Enfinity Global sign PPA for 97 MW of solar power in Italy

In October, the A2A Group and Enfinity Global Inc, a leader in the renewable energy sector, signed a Power Purchase Agreement (PPA) for three Enfinity plants in Lazio, totaling 97 MW.

The agreement, which will start in July 2025, foresees the take-back by A2A of about 160 GWh, equivalent to the annual electricity consumption of about 64,000 Italian households, avoiding the emission of more than 60,000 tons of CO2.

A2A and SIAD sign agreement for the construction of a photovoltaic plant for the production of renewable energy

The SIAD Group, as part of its objectives to support renewables and actively participate in reducing environmental impact, and A2A, through its subsidiary A2A Energia, signed a Power Purchase Agreement (PPA) on December 6, 2023.

The agreement provides for the purchase by SIAD of renewable energy produced by a photovoltaic plant built by A2A. The new installation will be able to generate 15,000 MWh of green energy per year, equivalent to the consumption of around 5,500 households, and will avoid the emission of around 7,000 tons of CO2eq/year. Thanks to this green energy, SIAD industrial gas production will be even more environmentally friendly.

For A2A, this initiative represents an opportunity to create value together with its partners, providing medium- to long-term offers and solutions capable of concretely supporting companies on the path to decarbonization. The new photovoltaic plant, thanks to the production of renewable energy, will also further contribute to the energy transition, one of the pillars of the Group's Business Plan, which aims to foster the country's sustainable development.

Alfa Heat Recovery, Alfa Acciai heat sold to A2A

With the start of the 2023-2024 heating season, Brescia District Heating takes a new step towards decarbonization thanks to the start-up of the new plant Alfa Heat Recovery. The heat transferred to the Brescia district heating network by the San Polo steel plant is growing significantly, covering the heating requirements of about 5 thousand households, in fact doubling the project's initial forecast.

A virtuous example of circularity that has important environmental benefits: heat recovery from thermal waste avoids the emission into the atmosphere of more than 10 thousand tons of CO2 per year.

The collaboration with Alfa Acciai is part of a path started long ago by A2A to reduce the use of fossil fuels as production sources for the district heating network. Brescia has in fact developed an integrated system, called Sistema Ambiente Energia, which combines electricity production, district heating/cooling and management of the urban waste cycle, eliminating the use of landfills. The waste-to-energy plant produces around 70% of the thermal energy distributed by the district heating network each year, (also producing electricity equal to the requirements of 200,000 households). In recent years, in addition to the abandonment of coal 5 years ahead of the national targets, industrial thermal waste (Alfa Acciai, Ori Martin) and storage tanks (at the North Plant and at the Lamarmora power plant) have been added to further reduce the remaining share of heat produced with gas. Today, the Brescia district heating network serves almost22 thousand users, equivalent to almost 180 thousand connected flats: in 2022, the heat transferred to the network amounted to 980 thermal GWh and, thanks to the use of non-fossil sources, the emission into the atmosphere was avoided of 138,525 tons of CO2.

Fri-El Geo and A2A launch a partnership for green district heating in Milan

On October 26, A2A, through its subsidiary A2A Calore e Servizi, Italy's leading district heating company, and Fri-El Geo, a producer of geothermal energy, launched a partnership aimed at increasing the use of renewable sources for heating in the city of Milan, which will reduce CO2 emissions. The location of the plants within the Metropolitan City of Milan is currently being studied.

With the signed agreement, Fri-El Geo and A2A Calore e Servizi demonstrate their willingness to meet the challenge of energy transition and ecological neutrality by 2050. In fact, geothermal energy is one of the energy sources with the lowest environmental impact and is poised to play an important role in Italy's sustainable future.

Thanks to district heating, the thermal energy produced by a geothermal plant can reach homes directly without the need for renovation work. Furthermore, homes would gain at least two energy classes with the replacement of methane gas, which in Italy today, is responsible for more than 50% of CO2 emissions from domestic heating systems.

Inauguration of Italy's first underground, waterproof electricity substation

A2A, in collaboration with Schneider Electric, today inaugurated the Underground Compact Substation at the Unareti Smart Lab: the innovative prototype of a secondary substation, completely underground, to help make the city's electricity grid increasingly resilient and which, thanks to its small size, meets the need to minimize land consumption in urban contexts and at the same time, enables the company to cope with the impacts of climate change, such as droughts and extreme water phenomena.

"Senergy Nets" European project. RSE and A2A alongside the EU for decarbonization

The A2A Group and Ricerca sul Sistema Energetico (RSE) are among the 19 members of the consortium that was awarded the European SENERGY NETS project in July as part of the Horizon Europe program.

SENERGY NETS, a continuation of the previous H2020 MAGNITUDE project that ended in May 2021, aims to demonstrate the benefits of integrating different energy carriers with a view to decarbonization: how best to integrate electricity, district heating and gas in order to pursue European emission reduction targets. To this end, through a strong interdisciplinary consortium involving 19 organizations in 8 European countries, the project will develop a set of tools and platforms to increase the synergy between district heating planning and electricity and gas distribution networks in the European countries involved.

These solutions will be implemented in three different experimentation sites located in Milan, Ljubljana and Paris, for a total period of 48 months until August 2026. The partners directly involved in the Italian pilot site will be Ricerca sul Sistema Energetico, A2A, A2A Calore e Servizi and Unareti - operator of the electricity and gas distribution system - supported in their work by the Italian Urban Heating Association (AIRU) and Federconsumatori Milano.

CO2 capture European project

In the context of activities to reduce its carbon footprint, our Group took part in the European project HERCCULES, an ambitious initiative with the aim of developing a technology to capture carbon dioxide through the Calcium Looping process.

Within the HERCCULES project, an experimental plant will be set up in Milan, at the Silla 2 waste-to-energy plant, with the aim of obtaining a highly concentrated carbon dioxide stream suitable for permanent storage in deep aquifers or for direct industrial use. The activities, which will involve a multidisciplinary team, will be coordinated by colleagues from R&D, the Group's structure created with the aim of exploring the most advanced areas of technological and innovative research, ranging from sustainable mobility, advanced solutions for material and energy recovery, and carbon capture.

The initiative was selected by the European Union to receive funding from a Horizon fund, involving 23 other partners from various European companies, research centers and universities.

Launched in 2023, the research program has a five-year duration and is scheduled to end in 2026. Subsequently, the results will be analyzed, together with the preparation of technical and economic reports to be completed by 2027.

Memorandum of Understanding with Legambiente: Together for the energy transition and the circular economy

On December 14, 2023, the A2A Group and Legambiente signed a memorandum of understanding to promote energy transition and the circular economy, overcoming the Nimby syndrome that often blocks the development of strategic infrastructures for the sustainable growth of the country and territories. The objective of this agreement is to encourage the adoption of a “Please In My Backyard” (PIMBY) approach in the construction of plants and infrastructure for ecological transition.

A2A and Legambiente undertake to share their respective skills and resources to promote a broader and more aware vision of these issues, placing investments in water resource management, the development of material recovery plants capable of producing biomethane, energy efficiency, electrification of consumption and electric mobility at the center of the path defined by the Memorandum of Understanding. Indeed, both parties aim to synergistically raise awareness among administrations and citizens about the concrete benefits of a responsible transition, emphasizing the importance of investing in sustainable solutions for the common good.

The signing of the Memorandum will initiate a series of technical discussions to identify common positions, as well as joint initiatives for dialogue and listening to territories to accompany specific industrial projects, cooperating at local and national level.

Telepass and A2A: a partnership to promote electric mobility

On November 30, 2023, an agreement was signed with Telepass to enable motorists to access more than two thousand charging points of the A2A E-Mobility infrastructure directly from the Telepass App on their mobile phones to offer a simpler and more widespread electric driving experience.

A partnership that for A2A is in line with the objectives of its Strategic Plan - based on energy transition and circular economy - in which electric mobility constitutes a fundamental lever to support the path towards electrification of consumption and decarbonization.

For the development of this sector, the A2A Group has planned investments up to 2030 amounting to around 300 million euro and the construction of 22 thousand recharging points on a national scale entirely powered by certified 100% green energy.

3.3

Significant events after December 31, 2023

Acinque finalizes acquisition of 70% of Agesp Energia

On January 3, 2024, the acquisition of 70% of Agesp Energia by Acinque, already historically active in the Varese area, was finalized with effective date January 1. The acquisition is consistent with the growth strategies of Acinque, which, based on territorial aggregations, with A2A as its industrial partner, has progressively consolidated its competitive capacity, expanding both the critical mass of its business and its reference perimeters. Agesp Energia operates in the sale of electricity and gas and has been the reference operator, for over 60 years, in the Busto Arsizio area for its 39,300 customers (of which 27,700 are gas customers and 11,600 electricity customers). The company also operates a district heating service and owns the dedicated network (about 18 km) as well as the cogeneration plant serving it. In 2022, approximately 32,100 MWh of thermal energy was sold and 21,400 MWh of electricity, net of self-consumption, was fed into the grid.

Tacit renewal of the Pact between A2A and the Public Authorities concerning Acinque

Pursuant to article 122 of the T.U.F. and articles 129 and 131 of the Issuers' Regulation, Acinque announces that the shareholders' agreement entered into on March 30, 2018 and renewed on June 30, 2021 between A2A, Lario Reti Holding, the Municipality of Monza, the Municipality of Como, the Municipality of Sondrio and the Municipality of Varese has been tacitly renewed for a further three-year period with effect from the expiry date of June 30, 2024. The total number of ordinary shares covered by the agreement and the percentages of contracting shareholders remain unchanged: A2A holds 41.34% of the share capital, Lario Reti Holding holds 23.93%, the Municipality of Monza holds 10.53%, the Municipality of Como holds 9.61%, the Municipality of Sondrio holds 3.30% and the Municipality of Varese holds 1.29%.

A2A agreement with Enel Group to reorganize electricity grids in Lombardy

On March 9, A2A S.p.A. and E-distribuzione, an Enel Group company active in the distribution of electricity, signed a sale and purchase agreement relating to the electricity network BU managed by E-distribuzione in certain areas of Lombardy in the provinces of Milan and Brescia. This agreement will allow the A2A Group to exploit territorial synergies and accelerate the investments required for the energy transition.

Specifically, the transaction provides for the A2A acquisition of 90% of a newly formed company to which E-distribuzione electricity distribution assets in the province of Milan (excluding a few municipalities in the northern belt) and, in the Brescia area, in Valtrompia will be contributed, for a total of about 800,000 POD, about 5,000 km of medium-voltage cables, more than 12,000 km of low-voltage cables, about 9,500 secondary substations and 60 primary substations. It is envisaged that, concurrently with the closing, the execution of which is subject to the fulfilment of certain conditions precedent, a shareholders' agreement will be entered into between A2A and E-distribuzione - which will hold the remaining 10% of the company - which, among other things, will include a mechanism of cross purchase and sale option clauses concerning the 10% shareholding, exercisable as of the first anniversary of the closing.

3.4
Climate change

The A2A Group is a Life Company, as it takes care of life, its most precious capital. It promotes the country's sustainable growth through a long-term strategy, with investments dedicated to the development of the circular economy and energy transition: businesses that, more than others, are crucial to preserving everyone's future. Sustainability is at the heart of our Group's strategy, which focuses on a fair, ecological and shared transition, and is divided into the two pillars of circular economy and energy transition.

The A2A Group is also subject to the effects of climate change, and the risks associated with these are specifically analysed by the Group, which in this regard, has created a system for identifying, assessing and managing risks associated with climate change, integrating it into its Enterprise Risk Management process. The climate risks identified 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), the businesses models and the services offered by the Group. 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).

The actions implemented by the A2A Group to counter the risks associated with climate change are, therefore, an important part of the development strategy, whose pillars are the Circular Economy and Energy Transition. In this regard, the update of the 2024-2035 Business Plan provides for some actions aimed at mitigating these effects; the Group reiterated its commitment to decarbonization by confirming its objective of reducing the emission factor to 226 gCO_2/kWh by 2030 and a further reduction of 65% compared to the 2017 value, corresponding to a decrease in emissions in absolute value of 60% compared to 2022. It is important to reiterate that the A2A Group has already decided on the closure of the Monfalcone coal-fired plant, writing it off in its entirety in the 2018 Financial Statements. This plant is now undergoing a major reconversion.

Moreover, the Group also committed to the decarbonization of its value chain over the Plan horizon, setting a target on the reduction of emissions from the supply chain by 30% compared to 2022 and one on gas sold to its customers by 20% to 2035 compared to 2023.

Significant risks for the Group related to climate change

From the analyzes carried out, the following risks relevant to the Group were identified, indicated in the following table. The estimated impact values are annual averages over the 2024-2035 Business Plan horizon:

Business	Event	Assumptions adopted to estimate impacts	Probability*	Range of impact on EBITDA (M€/a)
Electricity grids	Resilience of electricity distribution grids	For the risk, the reputational impact is considered prevalent; therefore, the economic impact remains low and consists of the possible application of sanctions in the event of non-compliance with the service quality levels established by ARERA.	Possible	<5
Retail gas	Thermal energy demand	The lower thermal energy sales that could occur as a result of milder winter and fall temperature trends than those projected in the Business Plan scenario are considered. The impact is based on historical data on the change in Ebitda compared to the budget. Furthermore, the impact on margins is considered in the event that an unplanned deviation occurs in the portfolio uses of the commodity gas due to the effect of very different final climatic conditions (exceptional/minimum temperature) from those used in the planning phase (normal temperature). The at-risk amount is estimated by applying the volatility of winter market prices to the daily consumption - calculated as a function of temperature (gradient).	Possible	<5
Heat	Thermal energy demand	The lower thermal energy sales that could occur as a result of milder winter and fall temperature trends than those projected in the Business Plan scenario are considered. Deviations of Degree Days (DD) from the Plan data are estimated on the basis of statistical evaluations performed on historical data (source: “Climate in Italy in 2022” published by Sistema Nazionale per la Protezione dell’Ambiente - Sistema Report SNPA/36 2023). See also section “Sensitivity analysis - changes in Degree Days”	Possible	<5
Electricity - Hydro and Renewables	Precipitation and water resource use	This takes into account the reduction in production for each of the Group’s hydroelectric auctions compared to the Business Plan forecasts - due to an unfavorable change in average rainfall. The estimate of production at risk is based on the difference between the average annual production forecast in the Business Plan and the worst case scenario consisting of production in 2022, which was a particularly unfavorable year. It is assumed that this worst case could occur twice in the time horizon of the 2024-2035 Business Plan. The lower production is valued with the energy PUN values (PUN peak for basin plants and PUN base load for run-of-river plants) provided by the energy scenario of the Business Plan. Furthermore, the reduction in production for each of the Group’s hydroelectric auctions is considered compared to the Plan’s forecasts - due to a possible additional request for releases compared to as foreseen by the existing agreements - valued with the PUN values of the Business Plan energy scenario.	Possible	>20
Electricity - CCGT + Monfalcone + San Filippo del Mela	Plant cooling	The risk was qualitatively estimated on the basis of historical events.	Hardly Possible	<5
Waste	ETS Directive Revision	There is still a lot of uncertainty as to how this will apply to waste-to-energy plants in the new ETS. The estimate took into account the CO_2 emission forecasts of the waste-to-energy plants, the EUA price forecasts of the Plan Scenario and an assumption of the transfer of the cost of the allowances to the disposal tariff. Only emissions from the fossil carbon fraction in waste were considered.	Possible	>20
All	Extreme weather phenomena	The risk has been estimated starting from the damage scenarios described in the assessment reports drawn up by the insurance broker, the vulnerabilities of the plants and the deductibles for direct and indirect damages provided for by the insurance contract.	Possible	<5

*Hardly Possible: <10%; Possible: >=10%; =<50%; Probable: >50%
Low: <5M€/a; Medium: >=5M€/a; =<20M€/a; High: >20M€/a

Based on the above, the climate risks with the most significant potential impact are related:

- to changes in the water resource available for hydroelectric production, as a result of both a potential overall reduction in annual precipitation volumes and potential changes in the distribution of precipitation throughout the year, as well as a potential reduction in the water reserve accumulated in the form of snow pack (Snow Water Equivalent) - due to rising average and maximum air temperatures;
- to the cost of CO_2 emission permits, in the event that the ETS also becomes mandatory for waste-to-energy plants;
- to a reduction in gas and heat sales due to a potential rise in average autumn and winter temperatures.

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 induced by increased temperatures;
- flooding of underground cabins caused by heavy rain;
- increased demand for energy related to the electrification of consumption.

The 2024-2035 Business Plan includes an investment plan aimed at 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 CO_2 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 periodically. 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.

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.

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 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.

To estimate the quantities of heat sold expected in the Plan, in order to take climate change into adequate consideration, the historical averages of the degree days observed in the last 5 years were considered, which capture the largest temperature increases. As better described in the note "Impairment", for the purpose of the impairment test, additional sensitivity analyses were performed on this already conservative assumption.

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

- change in the precipitation regime;
- competition on water use;
- wind regime and insulation.

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. For the purposes of the plan, the estimate of the Group's hydroelectric production is based on a 10-year historical average, including 2022, which was the worst in terms of hydraulicity over this observed period, for all of the Group's hydroelectric cores. Also in this case, as better described in the note "Impairment", for the purpose of the impairment test, additional sensitivity analyses were performed on this already conservative assumption.

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.

Drought periods can also impact the availability of biomass for bioenergy plants.

Production from thermoelectric plants ("CCGT") could be impacted both by the rise in temperatures and by drought, due to the risk relating to limitations on the operation of the plants due to difficulties in adequately cooling the thermoelectric cycle in the event of a rise in summer temperatures and/or lowering the levels of the waterways from which the cooling water is derived. 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, for all plants, which also covers direct and indirect damage caused by natural phenomena.

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 publication of the Directive (EU) 2023/959. The Group is constantly engaged in monitoring regulations, assessing possible impacts and participating in round tables with trade associations and/or competent bodies to represent any critical issues in the application of regulations in progress and make proposals. In addition, the Group is experimenting with new technologies for capturing and sequestering CO_2 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, for all 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.).

Uncertainties surrounding the decarbonization plan

The achievement of decarbonization targets is however subject to the following main sources of uncertainty:

- possible geopolitical, market or climatic situations that could lead to an increase in the demand for energy from fossil sources, either to meet a possible higher domestic demand for energy or to compensate for any lower production from renewable sources (hydroelectric) and/or any lower imports;
- insufficient technological development, which may not adequately support the replacement of fossil production and/or the removal of carbon ("carbon removal") from processes that are inherently "carbon intensive" (hard-to-abate).

To mitigate these uncertainties, the Group is analyzing all possible investment initiatives with a view to the planned decarbonization pathway and carries out experiments and investments in CO_2 (carbon capture).

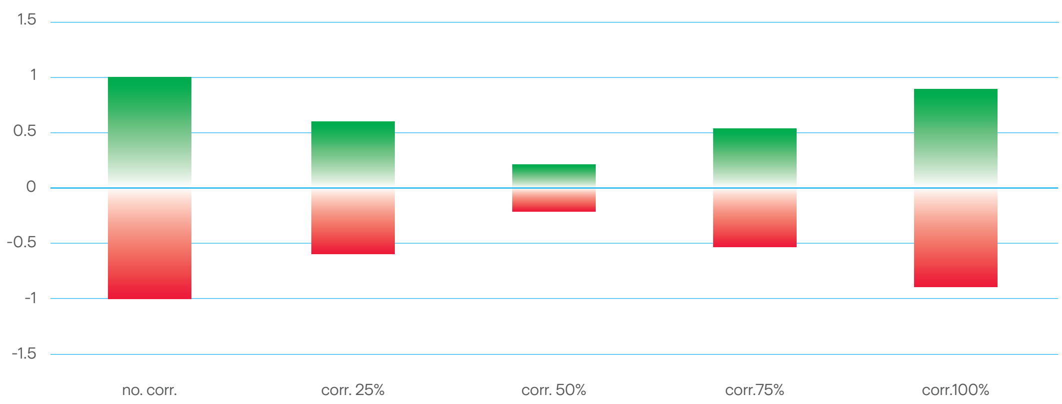
Sensitivity analysis - price changes of emission allowances (EU Allowances - EUA)

The estimated price of EUA (European Union Allowances) is included in the assumptions of the 2024-2035 Business Plan. The A2A Group also estimates the range of impact on EBITDA resulting from a possible trend in the value of EUA (European Union Allowances) that differs from the values taken as a reference in the preparation of the Business Plan. In particular, the change in the A2A Group's EBITDA was estimated as a result of a deviation in EUA prices of +/-10 euro/t compared to the forecasts included in the Business Plan. Sensitivities are made with different assumptions about the correlation between the EUA price and the single national electricity price (PUN). Full correlation (100%) means that the entire CO_2 cost is passed on in the energy price; vice versa, no correlation (0%) means that the CO_2 cost is not passed on in the price and it is entirely translated into increased costs of fossil fuel production. Intermediate degrees of correlation correspond to a partial transfer of cost to the PUN.

The histogram below shows the range of variability of the average annual impact on EBITDA calculated over the 12 years of the 2024-2035 Business Plan for each individual degree of correlation (0%; 25%; 50%; 75%; 100%). The values are normalized to the highest impact with 0% correlation. In green, possible favorable impacts, in red, possible unfavorable impacts. These potential impacts are calculated with respect to the 2024-2035 Business Plan and do not directly relate to the impairment test, for which the specific CGU considerations and analyses apply instead.

Sensitivities of impacts on EBITDA for EUA price changes of +/- 10 euro

Range of average annual impacts over the period 2024-2035 with different correlation assumptions between EUA price and PUN (normalized values)



The graph shows that extreme degrees of correlation (0% and 100%) produce potential amplified impacts on the A2A Group's EBITDA. In fact, if there is no correlation with the PUN, the impacts are "driven" by changes in the marginality of thermoelectric production, whereas if there is full correlation with the PUN (which means that the cost of CO_2 is passed on to the energy price), the impacts are "driven" by changes in the marginality of hydroelectric production. On the other hand, intermediate correlation values tend to mitigate the impacts of EUA price volatility. The EBITDA impact assessments shown in the graph were carried out on the A2A Group's power generation forecasts by source as defined in the Business Plan for the period 2024-2035.

Sensitivity analysis - changes in Degree Days[1]

The A2A Group estimates the range of impact on EBITDA generated by district heating in correspondence with three different trend scenarios of changes in Degree Days, projected over the horizon of the 2024-2035 Business Plan. The Degree Days variation scenarios were estimated from the autumn and winter average temperature variation trends (minimum, average and maximum variations) determined by ISPRA through statistical processing of historical data (source: SNPA System Report/36 2023).

1 The Degree Day (DD) of a location is the sum over all days in a conventional annual heating period of only the daily positive differences between the temperature (T_0), conventionally set for each country, and the daily average outdoor temperature of hourly data (T_e). Presidential Decree No. 412 of August 26, 1993 conventionally sets the ambient temperature T_0 at 20 °C.

Nella seguente tabella sono riportati i Gradi Giorno a rischio stimati (minimi, medi e massimi) rispetto alle previsioni dello scenario del Piano 2024-2035:

Year	DD at minimal risk	DD at medium risk	DD at maximum risk
2024	3.9	5.5	7.1
2025	7.7	11.0	14.2
2026	11.6	16.5	21.3
2027	15.5	22.0	28.4
2028	19.4	27.5	35.6
2029	23.2	32.9	42.7
2030	27.1	38.4	49.8
2031	31.0	43.9	56.9
2032	34.8	49.4	64.0
2033	38.7	54.9	71.1
2034	42.6	60.4	78.2
2035	46.4	65.9	85.3
Total	**301.9**	**428.2**	**554.6**
Average value	**25.2**	**35.7**	**46.2**

As can be seen from the table, the worst-case scenario indicates an average of 46 degree days over the plan.

The corresponding estimated unfavorable impacts on EBITDA are between approximately 25 million euro and 50 million euro over the 2024-2035 Business Plan, corresponding to an average annual impact value between approximately 2 million euro and 4 million euro.

These potential impacts are differential with respect to the hypotheses that the 2024-2035 Business Plan already takes into consideration and are not directly related to the impairment test, for which instead the specific considerations and analyzes on the CGUs apply.

Transversal climate risk management actions

As stated above, the A2A Group has therefore adopted the following transversal response actions to climate physical and transition 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 process;
- Long-term business plan (twelve years) 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 CO_2 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 CO_2 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.

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.

As described in the previous sections, the 2024-2035 Business Plan update 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 hydraulicity.

In order to assess the possible impacts of scenario and climate change variables (hydraulicity and Degree Days) on financial statements assets, a sensitivity analysis was carried out for the most exposed CGU (CCGT Generation, Renewable Generation and Heat). These analyzes further stress the already conservative assumptions used for the purposes of the business plan, especially with regard to hydraulicity and rising temperatures. As far as the Renewable Generation CGU is concerned, for the atmospheric phenomenon related to hydraulicity, reference was made to observations of historical production, and the exceptional situation that occurred in 2022, which can be observed as the worst year of hydraulicity in the last decade, was considered as a stressed scenario. It has been assumed that this stressed scenario occurs twice over a plan (once more than the decade of observation), thus conservatively assuming a progressive reduction in hydraulicity.

As regards the energy scenario of the Renewable Generation, Thermoelectric Generation and Heat CGU, the analysis was based on Monte Carlo method simulations through the generation of 10,000 price scenarios on the commodities PUN BASE, PUN PEAK, PSV and EUA, and "stressed" forward curves were calculated by applying the rising and falling volatility values.

As regards the Heat CGU, for the sensitivity on Degree Days, the stressed scenario was elaborated on the basis of estimates provided by external providers (ISPRA): in particular, the scenario with the greatest increase in degree days was considered among the possible scenarios observed (see previous section "Sensitivity Analysis - changes in Degree Days").

For further details, see the section on Impairment Test in the Notes to the Consolidated Financial Statements.

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.

For further details, please refer to Section 18 "Provisions for risks, charges and liabilities for landfills" of the Notes to the Consolidated Financial Statements.

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.

For further details, please refer to Section 24 "Revenues" of the Notes to the Consolidated Financial Statements.

3.5
Taxonomy

With the adoption of the first Technical Delegated Act of the EU Regulation 2020/852 (the so-called Taxonomy), economic sectors and activities that can contribute to climate change mitigation and adaptation, two of the six objectives defined by EU legislation, were identified.

In 2022, the A2A Group, in order to guarantee compliance with the requests of EU Regulation 2020/852, therefore started a process of implementing analyzes aimed at recognizing "eligible" and "aligned" activities pursuant to of the Regulation itself.

In this context, analyzes were conducted on several levels. In a first step, the Group's potentially environmentally sustainable activities were identified, i.e. those included in the Delegated Acts, which constituted the set of "eligible" activities.

Subsequently, on this set of activities, the actual eco-sustainability was assessed (so-called "alignment" to the Taxonomy). In fact, for an activity to be considered aligned, it must fulfil the following three requirements simultaneously:

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) Be carried out in compliance with minimum social safeguard guarantees[1].

This process therefore led to the identification of "eligible" and "aligned" activities for the Group under the Taxonomy, in accordance with the environmental objectives of climate change mitigation and adaptation. With reference to these activities, in 2022, A2A recorded revenues, capital expenditure and/or operating expenses, as reported in the Group's Consolidated Non-Financial Statement (DNF) 2022.

From the first quarter of 2023, given the strategic nature of reporting, the Group has decided to implement such reporting on an intra-annual periodic basis, specifically on capitalized expenses.

In November 2023, the European Commission also gave its final approval to the remaining Delegated Acts, which aim to identify the technical criteria and further activities to achieve the other four objectives of EU Regulation 2020/852: (a) sustainable use and protection of water and marine resources, (b) transition to a circular economy, (c) prevention and reduction of pollution and (d) protection and restoration of biodiversity and ecosystems. With regard to these objectives, the European Union, for FY 2023 reporting, requires an assessment of eligibility only.

Given the aforementioned regulatory changes, the analysis was therefore extended to all six taxonomic objectives for 2023. In particular, eligibility and alignment with the taxonomy was assessed for the first two environmental objectives of climate change mitigation and adaptation, and eligibility only for the remaining four objectives. With reference to these activities, A2A has reported revenues, capital expenditures and/or operating expenses in 2023, which are outlined in the Group's Consolidated Non-Financial Statement (DNF) 2023.

For 2024, a further expansion is envisaged of the analysis to identify "eligible" but also "aligned" activities for the Group under the Taxonomy, in accordance with all six objectives of the Regulation.

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."*

3.6
Outlook for operations

The forecasts for the 2024 financial year foresee an Ebitda of between 2.00 and 2.02 billion euro and a Group Net Profit, net of non-recurring items, of between 0.57-0.59 billion euro.

In 2024, the Group will continue to maintain a strong push on organic capex in order to generate balanced and sustainable growth over time, investing around 1.4 billion euro, in line with 2023.

3.7

Proposal for the allocation of net profit for the year ended December 31, 2023 and the distribution of a dividend

The annual financial statements of A2A S.p.A. for the year ended December 31, 2023 show a net profit of 488,210,234.00 euro.

If you are in agreement with the criteria used to prepare the financial statements, with the accounting principles and methods used in those statements and with the measurement criteria adopted, we invite you to approve:

the allocation of the net profit for the year of 488,210,234.00 euro as follows:

- 24,410,512.00 euro to the legal reserve;
- 300,132,326.00 euro as an ordinary dividend payable to shareholders to ensure a remuneration of 0.0958 euro for each outstanding ordinary share;
- 163,667,396.00 euro to the extraordinary reserve.

By way of information, we bring to your attention that the number of shares currently outstanding is equal to 3,132,905,277 shares.

The dividend will be paid from May 22, 2024, with ex-dividend date May 20, 2024 and record date May 21, 2024.

The Board of Directors

4

Scenario and Market

4.1

Macroeconomic scenario

Overview

In the year 2023, the global economy grew at a moderate but steady pace, in a context characterized by strong private consumption and resilient labor markets. Global economic activity was supported by emerging economies, including China, and among advanced economies, by the United States. According to the World Bank's preliminary estimate, world GDP growth is expected to reach +2.6% in 2023 compared to a growth of +3.0% in the previous year.

Regarding the advanced economies, the Federal Reserve estimates US GDP to grow by +2.6% in 2023, recovering from +1.9% the year before, despite a decline in private consumption in the latter part of the year. GDP accelerated sharply in Japan where it is expected at +1.7% in 2023 against +0.9% growth in 2022. China's GDP increased by +5.2% in 2023 (slightly below analysts' forecasts of +5.3%), exceeding the government's target of +5.0% and consolidating the positive economic recovery trend.

According to preliminary estimates by ECB experts, published in December, Eurozone GDP will slow down from +3.4 % in 2022 to +0.6 % in 2023 due to the impact on the real economy of the tight monetary policy measures adopted and the tightening of credit supply conditions.

As far as Italy is concerned, growth remained almost nil in the last months of 2023, held back by monetary tightening, still high energy prices and weak foreign demand. According to Bank of Italy estimates, GDP is expected to increase by +0.7% in 2023 as a whole.

According to the estimate released by Eurostat, inflation in the Eurozone stood at +2.9% in December 2023, compared to +2.4% in November and +9.2% in the corresponding month of 2022. In December, the highest contribution to the annual inflation rate came from services (+1.74%), followed by food, alcohol and tobacco (+1.21%) and non-energy industrial goods (+0.66%). The average inflation for the year is equal to +5.5%.

In Italy, according to ISTAT estimates, in December 2023, inflation recorded an increase of +0.2% on a monthly basis and +0.6% on an annual basis, from +0.7% in the previous month and from +11.6% in December 2022. On average, consumer prices will grow by +5.7% in 2023, a sharp slowdown from +8.1% in 2022. This slowdown was mostly due to the prices of regulated energy goods, which accentuated their decline (from -34.9% to -41.6%).

At its meetings in October and December, the Governing Council of the ECB decided to leave key interest rates unchanged, keeping the main refinancing operations rate at 4.5%. Previous interest rate hikes continue to have a strong effect on the economy. Financing conditions, which have become more restrictive, are dampening demand and contributing to the drop in inflation. In December, the Federal Reserve left key interest rates unchanged for the third consecutive meeting, in a range between 5.25 % and 5.50 %, at 22-year highs.

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 year 2023, the EUR/USD exchange rate was 1.08 dollars, up 2.6% from the previous year.

Outlook

Between monetary tightening, credit crunch and stagnating trade and investment, the world economy is set to reach a dismal record by the end of 2024: the slowest GDP growth five-year period in 30 years. The geo-political context remains one of the main factors of instability and uncertainty, which may lead to new commodity price increases and a deterioration in the confidence of households, businesses and investors. There are also non-negligible risks associated with the development of global economic activity, which could be more affected by the difficulties of the Chinese economy. In detail, the World Bank predicts that global growth will slow down for the third year in a row: from +2.6 % in 2023 to +2.4 % in 2024, before returning to growth and reaching +2.7 % in 2025. Developing economies will only grow by +3.9% this year and +4.0% next year. In advanced economies, growth is set to slow to +1.2 % this year (from +1.5 % in 2023) and reach +1.6 % in 2025. For the United States, growth is expected at +1.6% in 2024 (+0.8% from the previous estimate) and +1.7% in 2025 (-0.6% from the previous estimate). The World Bank cut its forecast for China's growth and warned that East Asian developing economies are set to grow at one of the lowest rates in fifty years, held back by US protectionism and rising debt levels. China will see GDP growth in the range of +4.5 % this year and +4.3 % in 2025 (-0.1 % for both years compared to the previous estimate). By contrast, expectations for Russia are revised slightly upwards to +1.3% in 2024 and +0.9% in 2025.

According to ECB expert projections published in December, Eurozone GDP is expected to accelerate to +0.8% in 2024 and +1.5% in 2025-2026. Within the Eurozone, Germany will have modest growth of +0.6% this year and +1.2% the next, while France will do little better: +0.8% in 2024 and +1.2% in 2025.

As regards Italy, according to the most recent Bank of Italy estimates, GDP is expected to increase by +0.6% in 2024 (from +0.7% in 2023) and by +1.1% in both 2025 and 2026. After remaining broadly stable in the second half of 2023, economic activity is expected to gradually strengthen in the course of this year, supported by a recovery in disposable income and foreign demand. The unemployment rate is expected to decrease slowly but steadily to 7.4% in 2026.

The macroeconomic projections made in December 2023 by Eurosystem experts forecast that overall inflation will continue its downward path, averaging +2.7% in 2024, +2.1% in 2025 and +1.9% in 2026.

As far as Italy is concerned, the consumer price index is expected to average +1.9% this year and decrease to +1.8% in 2025 and +1.7% in 2026. The decline would mainly reflect the sharp fall in the prices of raw materials and intermediate goods, only partly offset by the acceleration in remuneration. Compared to previous forecasts, consumer inflation was revised downwards particularly sharply in 2024, reflecting a faster decline in energy prices.

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. The Council also decided to gradually reduce during the second half of 2024, until they reach zero, the reinvestment of maturing securities purchased under the pandemic emergency public and private securities purchase program. The Federal Reserve has also announced that its monetary policy stance will remain restrictive until inflation has returned to levels compatible with its targets. Most members of the Federal Open Market Committee consider it appropriate, if conditions permit, to ease monetary tightening as early as 2024.

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 averaging 1.08 dollars in 2024 and for the two-year period 2025-2026.

4.2

Energy market trends

Electricity

As far as the national electricity market is concerned, in Italy in 2023 there was a net requirement of 306,090 GWh, down -2.8% compared to the previous year requirement (source: Terna); in seasonally adjusted terms, and corrected for calendar and temperature, the change is equal to -2.1%. The above requirements were met 46.5% from non-renewable sources, 36.8% from renewable sources and the remainder from imports. In 2023, there was a change in the foreign balance, increasing by 19.2% compared to 2022.

Net energy production in 2023 was 257,023 GWh, down -6.4% compared to the previous year. Production from Renewable Energy Sources (RES) increased 15.4% year-on-year to 112,668 GWh. Specifically, photovoltaic (+10.6%) and wind power (+15.1%) increased compared to last year, while geothermal (-1.9%) decreased. The hydroelectric source shows an increase of 36.1% due to the higher water resources availability with a contribution to national production that is, however, significantly lower than in the period 2018-2021. With the increase in production from renewable sources, there is a concomitant drop in thermoelectric generation, which is down 17.4% to 157,934 GWh compared to 2022. National production, excluding pumping, accounted for 84.0% of the demand for electricity, while net imports satisfied the remainder.

The average value of the PUN (Single National Price) Base Load in 2023 stands at 127.4 euro/MWh, in line with the level of 2021 and recording a sharp decrease (-58.0%) compared to 2022, in line with a trend common to all major European electricity markets. The dynamic is mainly driven by a significant drop in gas costs to which the price of electricity is related. Starting from an average value of 174.5 euro/MWh in January 2023, the PUN progressively dropped to a low of 105.3 euro/MWh in June, then rose to 134.26 euro/MWh in October, as tensions in the Middle East began to rise, before retracing and settling at 115.5 euro/MWh in December. Average prices down also for the price in the hours of high load (PUN Peak Load) with a value that stood at 137.4 euro/MWh (-58.8% compared to 2022). The average price during off-peak hours (PUN Off-Peak) was 121.9 euro/MWh, down -57.4% compared to the previous year. For all of 2024, forward curves indicate Base Load PUN prices with average values close to 92.7 euro/MWh.

Natural Gas

The long wave of the Russia-Ukraine conflict, also fuelled by new tensions in the Middle East, shows its effects on the Italian and international gas systems also in 2023, the year in which low demand levels and the consolidation of a raw material supply structure substantially independent of Russian supplies are confirmed. In 2023, natural gas consumption in Italy will stand at 63,125 million cubic metres (-8.5%), at its lowest level since 2015, as a result of the restraining policies induced both by sharp price rises and the need to fill storage tanks that characterized 2022 and 2023; the milder temperatures recorded in 2023 also contributed to the reduction in consumption (source: Snam Rete Gas). Consumption in the industrial and civil sectors decreased, with volumes of 11,440 million cubic metres (-4.0%) and 26,596 million cubic metres (-7.4%) respectively. Consumption also decreased in the thermoelectric sector to 21,130 million cubic metres (-16.0%).

On the supply side, the settling of national production at increasingly marginal values was more than offset by lower demand, which led to a drop in natural gas imports to 60,640 million cubic metres (-3.9%) with a share of 95.6% of national requirements net of storage trends. Domestic production, which satisfied the remainder, fell by -1.1% to 2,806 million cubic metres. Stocks in storage systems remained at record levels at the end of December, as a result of a still positive balance between injections and disbursements within a legislative and regulatory framework aimed at maximizing stocks.

As regards prices, the average price of gas to the PSV in 2023 decreased compared to the record levels of the previous year and stands at 42.3 euro/MWh, down by -65.3% compared to 2022. The PSV, starting from a value of 68.4 euro/MWh in January 2023, shows a downward trend, reaching a low of 31.4 euro/MWh in July, then rising until October and retracing to 36.3 euro/MWh in December 2023. The price dynamics on the main European hubs were similar: the average price of gas to the TTF for 2023 amounted to 40.7 euro/MWh, down -66.2% compared to 2022.

The trend in the respective prices resulted in a PSV-TTF differential of 1.66 euro/MWh for the reporting period, a significant increase compared to the differential of 2022 (1.41 euro/MWh). Gas prices on the main European markets are expected to decrease in

2024, with an expected average price of gas to the TTF of 29.1 euro/MWh and to the PSV of 30.0 euro/MWh; the respective forward curves show a positive PSV-TTF differential around 0.83 euro/MWh.

Oil and coal

In 2023, oil prices had an average value of 82.2 dollars/bbl, down -16.8% compared to the previous year. Intra-annual dynamics show quotations in the first half of the year which, continuing a trend that started in the second half of 2022, tend to gradually decrease until the beginning of the summer, settling at a minimum value of 75.0 dollars/bbl in June. Prices rose again to reach annual highs between the end of September and October, coinciding with renewed geopolitical tensions in the Middle East. In 2023, the downward movement of quotations expressed in euro/bbl (-19.1%) is slightly pronounced, in the presence of an exchange rate that, with an increase of 2.6%, stands at 1.08 USD/EUR in 2023. For the year 2024, oil forward curves indicate prices with average values close to 76.3 dollars/bbl.

The Energy Information Administration (EIA) reported that global oil demand in 2023 averaged 101.1 million barrels per day, with an increasing trend within individual quarters. The EIA predicts that global oil demand will increase to 102.5 million barrels per day in 2024, and then grow further to 103.7 million barrels per day in 2025; most of the EIA demand growth forecasts are concentrated in China and India. In OECD countries, demand growth will be mostly stable in both 2024 and 2025. These forecasts are however subject to many uncertainties including future trends in global economic development and continuing geopolitical tensions.

OPEC crude production of member countries averaged 26.9 million barrels per day in 2023. The EIA expects average OPEC crude oil production to decrease to 26.6 million barrels per day in 2024, as a result of new production cuts, and increase to 27.4 million barrels per day in 2025. U.S. crude oil production averaged 12.9 million barrels per day in 2023, the highest US crude oil production ever recorded. EIA forecasts is for an increase that will average 13.2 million barrels per day in 2024 and rise further to 13.4 million barrels per day in 2025, driven by the increase in well efficiency.

The price of coal also highlights a downward trend which, starting from the January 2023 values of 165.2 dollars/ton, progressively contracts to settle in July at a minimum value of 110.4 dollars/ton. It then reversed the trend until October and settled at 117.5 dollars/ton in December. The average price for the year 2023 was 129.4 dollars/ton, down -55.8% compared to the previous year (292.8 dollars/ton). In 2023, the downward dynamic of quotations expressed in euro/ton (-56.9%) is slightly accentuated by the appreciation of the single currency. For 2024, forward curves indicate prices with average values close to 91.1 dollars/ton.

5

Analisys of main sectors of activities

5.1

Summary of results sector by sector

12 31 2023

millions of euro	Generation and Trading	Market	Waste	Smart Infrastructures	Corporate	Eliminations	Income statement
	01 01 2023 12 31 2023	01 01 2023 12 31 2023	01 01 2023 12 31 2023	01 01 2023 12 31 2023	01 01 2023 12 31 2023	01 01 2023 12 31 2023	**01 01 2023 12 31 2023**
Revenues	**10,920**	**7,140**	**1,458**	**1,552**	**337**	**(6,649)**	**14,758**
- of which inter-sector	*5,491*	*180*	*313*	*354*	*311*	*(6,649)*	
Operating expenses	**(9,992)**	**(6,777)**	**(718)**	**(904)**	**(230)**	**6,649**	**(11,972)**
- of which inter-sector	*(417)*	*(5,624)*	*(126)*	*(413)*	*(69)*	*6,649*	
Labour costs	(99)	(64)	(365)	(114)	(173)		(815)
Gross operating income - EBITDA	**829**	**299**	**375**	**534**	**(66)**		**1,971**
% of Revenues	*7.6%*	*4.2%*	*25.7%*	*34.4%*	*(19.1%)*		*13.4%*
Depreciation of tangible assets and amortization of intangible assets	(225)	(68)	(160)	(282)	(66)		(801)
Net write-downs of fixed assets	-	-	(1)	(1)	-		(2)
Provisions for risks	(50)	5	(9)	(11)	(3)		(68)
Provisions for credit risks	-	(69)	1	(10)	(5)		(83)
Net operating income - EBIT	**554**	**167**	**206**	**230**	**(140)**		**1,017**
% of Revenues	*5.1%*	*2.3%*	*14.1%*	*14.8%*	*(40.6%)*		*6.9%*
Result from non-recurring transactions							2
Financial balance							(140)
Result before taxes							879
Income taxes							(199)
Result after taxes from operating activities							680
Net result from discontinued operations							3
Minorities							(24)
Group result of the year							**659**
Gross capex (1)	332	92	214	631	110	(3)	1,376

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

12 31 2022 Restated

millions of euro	Generation and Trading	Market	Waste	Smart Infrastructures	Corporate	Eliminations	Income statement
	01 01 2022 12 31 2022 Restated	01 01 2022 12 31 2022 Restated	01 01 2022 12 31 2022 Restated	01 01 2022 12 31 2022 Restated	01 01 2022 12 31 2022 Restated	01 01 2022 12 31 2022 Restated	**01 01 2022 12 31 2022 Restated**
Revenues	**19,605**	**8,798**	**1,422**	**1,529**	**320**	**(8,518)**	**23,156**
- of which inter-sector	*7,144*	*358*	*348*	*374*	*294*	*(8,518)*	
Operating expenses	**(18,960)**	**(8,615)**	**(710)**	**(905)**	**(221)**	**8,518**	**(20,893)**
- of which inter-sector	*(558)*	*(7,320)*	*(113)*	*(473)*	*(54)*	*8,518*	
Labour costs	(91)	(58)	(353)	(112)	(151)		(765)
Gross operating income - EBITDA	**554**	**125**	**359**	**512**	**(52)**		**1,498**
% of Revenues	*2.8%*	*1.4%*	*25.2%*	*33.5%*	*(16.3%)*		*6.5%*
Depreciation of tangible assets and amortization of intangible assets	(206)	(53)	(149)	(258)	(56)		(722)
Net write-downs of fixed assets	(1)	-	-	(1)	-		(2)
Provisions for risks	(30)	1	32	(3)	(2)		(2)
Provisions for credit risks	-	(88)	1	(2)	(1)		(90)
Net operating income - EBIT	**317**	**(15)**	**243**	**248**	**(111)**		**682**
% of Revenues	*1.6%*	*(0.2%)*	*17.1%*	*16.2%*	*(34.7%)*		*2.9%*
Result from non-recurring transactions							157
Financial balance							(88)
Result before taxes							751
Income taxes							(344)
Result after taxes from operating activities							407
Net result from discontinued operations							41
Minorities							(47)
Group result of the year							**401**
Gross capex (1)	272	71	264	560	73	-	1,240

(1) See the items "Capex" in the schedules on tangible and intangible assets presented in Notes 1 and 2 to the balance sheet.
It should be noted that the values at December 31, 2022 have been restated to make them homogeneous with the values at December 31, 2023 by reclassifying the revenues, operating costs and depreciation and amortization related to the Water BU sold in 2023 under the item "Net result from discontinued operations/held for sale".

12 31 2023

millions of euro	Generation and Trading	Market	Waste	Smart Infrastructures	Corporate	Eliminations and adjustments	Total Group
	12 31 2023	12 31 2023	12 31 2023	12 31 2023	12 31 2023	12 31 2023	**12 31 2023**
Capital employed							
Net fixed capital	**2,758**	**237**	**1,650**	**4,584**	**4,237**	**(3,899)**	**9,567**
- Tangible assets	2,499	57	1,356	2,510	261	(40)	6,643
- Intangible assets	423	388	608	2,105	106	-	3,630
- Shareholdings and other non-current financial assets	9	14	29	-	3,890	(3,859)	83
- Other non-current assets/liabilities	2	(209)	2	(31)	48	-	(188)
- Deferred tax assets/liabilities	236	15	35	100	78	-	464
- Provisions for risks, charges and liabilities for landfills	(391)	(20)	(334)	(57)	(26)	-	(828)
- Employee benefits	(20)	(8)	(46)	(43)	(120)	-	(237)
Net Working Capital and Other Current Assets/Liabilities	**(574)**	**586**	**(30)**	**27**	**(85)**	**(6)**	**(82)**
Net Working Capital	**(852)**	**623**	**13**	**81**	**(85)**	**(26)**	**(246)**
- Inventories	208	-	46	64	1	-	319
- Trade receivables	1,838	1,920	340	571	81	(1,210)	3,540
- Trade payables	(2,898)	(1,297)	(373)	(554)	(167)	1,184	(4,105)
Other current assets/liabilities	**278**	**(37)**	**(43)**	**(54)**	**-**	**20**	**164**
- Other current assets/liabilities	267	(31)	(33)	(66)	36	20	193
- Current tax assets/tax liabilities	11	(6)	(10)	12	(36)	-	(29)
Assets/Liabilities held for sale	-	-	-	-	-	-	-
Total capital employed	**2,184**	**823**	**1,620**	**4,611**	**4,152**	**(3,905)**	**9,485**

12 31 2022

millions of euro	Generation and Trading	Market	Waste	Smart Infrastructures	Corporate	Eliminations and adjustments	Total 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**

5.2
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 generation plants portfolio[1] 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 activity of the Market Business Unit is aimed at the retail sale of electricity and natural gas and is responsible for 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 waste-to-energy or the use of biogas.

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).

In addition, the Smart Infrastructures Business Unit 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 develops and manages public lighting and traffic regulation systems; and, 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 9.7 GW.

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

Results by sector 2023

millions of euro	Generation and Trading	Market	Waste	Smart Infrastructures	Corporate	Eliminations and adjustments	Total
Revenues from the sale of goods and services	10,807	7,090	1,410	1,496	305	(6,616)	14,492
Other revenue and income	113	50	48	56	32	(33)	266
Total revenues	**10,920**	**7,140**	**1,458**	**1,552**	**337**	**(6,649)**	**14,758**
Operating expenses	9,992	6,777	718	904	230	(6,649)	11,972
Labour costs	99	64	365	114	173	-	815
Gross Operating Margin - EBITDA	**829**	**299**	**375**	**534**	**(66)**	**-**	**1,971**
Depreciation, amortization and write-downs	275	132	169	304	74	-	954
Net Operating Income - EBIT	**554**	**167**	**206**	**230**	**(140)**	**-**	**1,017**
Capex	**332**	**92**	**214**	**631**	**110**	**(3)**	**1,376**

Results by sector 2022

millions of euro	Generation and Trading	Market	Waste	Smart Infrastructures	Corporate	Eliminations and adjustments	Total
Revenues from the sale of goods and services	19,544	8,758	1,378	1,457	291	(8,490)	22,938
Other revenue and income	61	40	44	72	29	(28)	218
Total revenues	**19,605**	**8,798**	**1,422**	**1,529**	**320**	**(8,518)**	**23,156**
Operating expenses	18,960	8,615	710	905	221	(8,518)	20,893
Labour costs	91	58	353	112	151	-	765
Gross Operating Margin - EBITDA	**554**	**125**	**359**	**512**	**(52)**	**-**	**1,498**
Depreciation, amortization and write-downs	237	140	116	264	59	-	816
Net Operating Income - EBIT	**317**	**(15)**	**243**	**248**	**(111)**	**-**	**682**
Capex	**272**	**71**	**264**	**560**	**73**	**-**	**1,240**

5.3

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:

829

mln €

Ebidta

+49.6% compared to 2022

332

mln €

Capex

272 mln € in 2022 (+22.1%)

312

GWh

Production of coal-fired plants

(-52.9% vs 2022)

8,822

GWh

Thermoelectric production from other facilities

(-41.1% vs 2022)

806

GWh

Photovoltaic and wind power production

(+26.3% vs 2022)

3,743

GWh

Hydroelectric production

(+37.2% vs 2022)

127

€/MWh

Single National Price

(-58% vs 2022)

-6.9

€/MWh

Clean spark spread

(1.9 €/MWh in 2022)

306,090

GWh

Energy demand in Italy

(-2.8 % vs 2022)

Operating figures

Net electricity production GWh	12 31 2023	12 31 2022	Change	% 2023/2022
Net thermoelectric production	**9,134**	15,636	(6,502)	(41.6%)
- CCGT	7,601	12,836	(5,235)	(40.8%)
- Oil	1,221	2,137	(916)	(42.9%)
- Coal	312	663	(351)	(52.9%)
Net production from Renewable Sources	**4,549**	3,367	1,182	35.1%
- Hydroelectric	3,743	2,729	1,014	37.2%
- Photovoltaic	378	387	(9)	(2.3%)
- Wind	428	251	177	70.5%
Total net production	**13,683**	**19,003**	**(5,320)**	**(28.0%)**

The volumes produced in 2023, at 13,683 GWh, decreased by 28%. In particular, thermoelectric production for the year under review stood at 9,134 GWh, down by 41.6% compared to the previous year (15,636 GWh as at December 31, 2022). The contraction affected both combined cycle plants, as a result of lower contestable demand for electricity in 2023 compared to last year's requirements (-2.8% - source: Terna), and higher net imports (+19.2%). The San Filippo del Mela power plant and the Monfalcone coal-fired power plant also decreased due to the conclusion of the emergency measure, started in 2022, of maximizing the production of power plants fueled by sources other than natural gas.

Production from renewable sources, on the other hand, amounted to 4.5TWh, up 35.1% from the previous year due to higher hydroelectric volumes as a result of the higher rainfall in 2023 compared to the previous year, which was affected by a persistent drought, and to the contribution of the plants of the companies acquired in 2022 and the Matarocco wind farm in operation since September 2023.

Economic figures

millions of euro	01 01 2023 12 31 2023	01 01 2022 12 31 2022	Change	% 2023/2022
Revenues	10,920	19,605	(8,685)	(44.3%)
Operating expenses	(9,992)	(18,960)	8,968	(47.3%)
Labour costs	(99)	(91)	(8)	8.8%
Gross Operating Margin - EBITDA	**829**	**554**	**275**	**49.6%**
% of Revenues	7.6%	2.8%		
Depreciation, amortization, provisions and write-downs	(275)	(237)	(38)	16.0%
Net Operating Result	**554**	**317**	**237**	**74.8%**
% of Revenues	5.1%	1.6%		
Capex	332	272	60	22.1%
FTE	1,107	1,071	36	3.4%

Revenues in 2023 amounted to 10,920 million euro, a decrease of 8,685 million euro (-44.3%) compared to the previous year. The decrease is mainly attributable to lower electricity and gas prices and, to a lesser extent, sold and brokered volumes of electricity.

Operating costs for the year amounted to 9,992 million euro, a decrease of 47.3% compared to 2022, following the reduction in the costs of supplying energy raw materials. Maintenance and operating costs, on the other hand, increased by about 10 million euro for work on the plants, particularly wind and solar power plants of the companies acquired in 2022.

Labour costs amounted to 99 million euro, up 8 million euro compared to the previous year (+8.8%). This change was determined partly (almost 40%) by the increase in FTE (+36 FTE) for the management of turnover and the strengthening of the structures for the development of renewable energy and partly by the increase in unit cost for salary increases (collective contracts, increases and indemnities and remuneration policy actions) and for ancillary costs (mainly payments aimed at encouraging early retirement).

The Gross Operating Margin of the Generation and Trading Business Unit amounted to 829 million euro, an increase of 49.6%, +275 million euro compared to 2022. Net of the non-recurring components recorded in the year in question (+37 million euro) and in the previous year (-9 million euro), the Ordinary EBITDA increased by 229 million euro.

The positive change is mainly attributable to:

- positive effects resulting from the increased hydraulicity that the year under review benefited from compared to the previous year, which was penalized by a severe drought that had led to a significant drop in hydroelectric production and consequently, where necessary, a very costly recourse to the spot market in a context of rising prices;
- the contribution of production from other renewable sources, in particular wind power plants;
- effective hedging strategies, which, at the same time as the conclusion of the measure of the support decree ter (two-way compensation mechanism on the price of electricity fed in for RES plants), made it possible to offset the reduction in the price of energy commodities in the year under review.

The positive impacts were partly offset by a contraction in margins on the ancillary services markets (MSD) both due to fewer requests from Terna and a lower valorization of quantities, the lower contribution of combined cycle thermoelectric production and higher costs of structure (Labour and costs for maintenance and operation).

Depreciation, amortization, provisions and write-downs totaled 275 million euro (237 million euro at December 31, 2022). The change is linked for 18 million euro to higher depreciation and amortization mainly attributable to the consolidation of the newly acquired companies in the renewables sector and for 20 million euro to the increased allocations to the risk provision net of releases.

As a result of the above changes, net operating income amounted to 554 million euro (317 million euro at December 31, 2022).

Capital expenditure in the year under review amounted to 332 million euro and included extraordinary maintenance work of approximately 87 million euro, of which 62 million euro at thermoelectric plants and 20 million euro at the Group's hydroelectric plants.

Development interventions for a total of 240 million euro were carried out, of which 54 million euro related to photovoltaic and wind power plants aimed at accelerating the growth of the Group's renewable sources and 177 million euro for interventions on combined cycle thermoelectric plants (new CCGT Monfalcone, endothermic engines in Cassano and gas turbine upgrades in Piacenza) aimed at ensuring flexibility and coverage of peak demand and balancing the energy needs of the electricity grid.

Finally, work was carried out to meet standards amounting to approximately 5 million euro.

5.4
Market Business Unit

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

299
mln €
Ebidta
125 mln € in 2022

92
mln €
Capex
71 mln € in 2022

22,964
GWh
Electricity Sales
(+10.7% vs 2022)

3,032
Mcm
Gas Sales
(+13.3% vs 2022)

1,935
(#/1000) POD
Retail market ele customers
free market: 1,307 POD
(+15.9% vs 2022)

1,555
(#/1000) PDR
Retail market gas customers
free market: 1,178 PDR
(+12.9% vs 2022)

Operating figures

Electricity	12 31 2023	12 31 2022	Change	% 2023/2022
Electricity Sales				
Electricity Sales Free Market (GWh)	18,543	18,423	120	0.7%
Electricity Sales under Greater Protection Scheme (GWh)	517	732	(215)	(29.4%)
Electricity Sales Gradual Protection (GWh)	2,600	714	1,886	n.s.
Electricity Sales Safeguard Market (GWh)	1,304	868	436	50.2%
Total Electricity Sales (GWh)	**22,964**	**20,737**	**2,227**	**10.7%**
POD Electricity				
POD Electricity Free Market (#/1000)	1,307	1,128	179	15.9%
POD Electricity Gradual Protection (#/1000)	379	40	339	n.s.
POD Electricity under Greater Protection Scheme (#/1000)	249	323	(74)	(22.8%)
Total POD Electricity (#/1000)	**1,935**	**1,491**	**444**	**29.8%**

Gas	12 31 2023	12 31 2022	Change	% 2023/2022
Gas Sales				
Gas Sales Free Market (Mcm)	2,743	2,282	461	20.2%
Gas Sales under Protection Scheme (Mcm)	289	395	(106)	(26.8%)
Total Gas Sales (Mcm)	**3,032**	**2,677**	**355**	**13.3%**
PDR Gas				
PDR Gas Free Market (#/1000)	1,178	1,043	135	12.9%
PDR Gas under Greater Protection Scheme (#/1000)	377	536	(159)	(29.7%)
Total PDR Gas (#/1000)	**1,555**	**1,579**	**(24)**	**(1.5%)**

The quantities are stated gross of losses.
The POD and PDR figures relate to the mass market.

In 2023, the Market Business Unit recorded 22,964 GWh of electricity sales, up 10.7% on the previous year. The increase is related to the higher contribution of the Gradual Protection Service and the acquisition, by auction, of customers subject to the safeguard regime.

Gas sales, equal to 3,032 million cubic meters, increased by +13.3% compared to 2022, attributable to the key accounts segment.

With reference to supply points, there was a 30% 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 effective commercial development actions undertaken, the Business Unit consolidated its customer base by increasing its electricity and gas supply points by 420,000 units compared to December 31, 2022 and reaching a total of 3.5 million points (+14% compared to 2022), of which 1.9 million related to the electricity market and 1.6 million to the gas market.

Economic figures

millions of euro	01 01 2023 12 31 2023	01 01 2022 12 31 2022	Change	% 2023/2022
Revenues	7,140	8,798	(1,658)	(18.8%)
Operating expenses	(6,777)	(8,615)	1,838	(21.3%)
Labour costs	(64)	(58)	(6)	10.3%
Gross Operating Margin - EBITDA	**299**	**125**	**174**	**n.s.**
% of Revenues	4.2%	1.4%		
Depreciation, amortization, provisions and write-downs	(132)	(140)	8	(5.7%)
Net Operating Result	**167**	**(15)**	**182**	**n.s.**
% of Revenues	2.3%	(0.2%)		
Capex	92	71	21	29.6%
FTE	1,034	973	61	6.3%

Revenues amounted to 7,140 million euro (8,798 million euro at December 31, 2022). The change is attributable to the decrease in both electricity and gas unit prices, partly offset by the increase in quantities sold.

Operating costs for the year under review amounted to 6,777 million euro, a decrease of 1,838 million euro compared to 2022 following the contraction in commodity procurement costs. On the other hand, there were cost increases in support for customer development and management (in particular ICT costs, indirect channels, marketing and communication) in excess of 20 million euro.

Labour costs amounted to 64 million euro (58 million euro in 2022), mainly as a result of the increase in FTE to 61. The change is mainly linked (around 70%) to the greater hiring made for the strengthening, in line with the business development objectives, of the organizational structures (in particular the Customer Service area) and for the remainder to the greater unit costs following salary increases.

EBITDA of the Market Business Unit equaled 299 million euro (125 million euro at December 31, 2022).

Net of non-recurring items (-18 million euro in 2023 and +2 million euro in 2022), Ordinary EBITDA increased by 194 million euro.

The growth in margins for 2023 compared to the previous year was attributable to:

- higher volumes of electricity sold in the safeguarded market;
- growth in volumes sold to the large customer segment, particularly gas;
- increase in the customer base of the mass market segment;
- increase in unit margins, also thanks to the full recovery of the contraction recorded in 2022 due to the different temporal distribution of the margins of fixed price sales, which confirmed the overall contractual margin on an annual or biennial basis.

These positive effects made it possible to absorb higher charges related to retention actions, activated by the Group during 2023 on its customer base, and the increase in operating costs for customer acquisition and management activities.

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 that exceeds the levels achieved in previous years.

Depreciation, amortization, provisions and write-downs totaled 132 million euro (140 million euro in 2022): compared to lower provisions for bad debts of 19 million euro and greater releases relating to the risk provision, there were greater depreciation and amortization for investments made during 2023.

As a result of the above changes, net operating income amounted to 167 million euro (negative 15 million euro at December 31, 2022).

Investments in 2023 amounted to 92 million euro. These investments concerned:

- the energy retail sector with 84 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 Solutions segment with 8 million euro for energy efficiency projects.

5.5
Waste Business Unit

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

375
mln €
Ebidta
+4.5% compared to 2022

214
mln €
Capex
264 mln € in 2022

1,544
GWht
Heat sold
(+3.8% vs 2022)

2,071
GWh
Electricity sold
(-2.4% vs 2022)

3,640
Kton
Waste disposed of
(+8.1% vs 2022)

of which:

1,145
Kton
Material recovery disposals
(+15.2% vs 2022)

1,397
Kton
Energy recovery disposals
(-2.7% vs 2022)

Operating figures

	12 31 2023	12 31 2022	Change	% 2023/2022
Waste collected (Kton)	1,787	1,785	2	0.1%
Residents served (#/1000)	3,928	3,965	(37)	(0.9%)
Electricity sold (GWh)	2,071	2,121	(50)	(2.4%)
Heat sold (GWht)	1,544	1,487	57	3.8%

Waste disposed of (Kton)	12 31 2023	12 31 2022	Change	% 2023/2022
Energy recovery	1,397	1,436	(39)	(2.7%)
Material recovery	1,145	994	151	15.2%
Other	1,098	938	160	17.1%
Total	**3,640**	**3,368**	**272**	**8.1%**

The quantities reported are net of intra-group disposals.

The quantities of electricity produced were down 2.4% year-on-year due to the reduced availability of the Acerra and Brescia waste-to-energy plants as a result of increased maintenance shutdowns, partly offset by the increased productivity of the Parona plant. In addition, the volumes of heat sold increased by 3.8% in the year under review as a result of higher demand in the district heating sector.

Net waste disposed of amounted to 3,640 thousand tons (+8.1% compared to the previous year), recording an increase in disposals of material recovery plants due to the contribution of the new OFMSW Lacchiarella and Cavaglià plants and the higher quantities of paper disposed of.

Economic figures

millions of euro	01 01 2023 12 31 2023	01 01 2022 12 31 2022	Change	% 2023/2022
Revenues	1,458	1,422	36	2.5%
Operating expenses	(718)	(710)	(8)	1.1%
Labour costs	(365)	(353)	(12)	3.4%
Gross Operating Margin - EBITDA	**375**	**359**	**16**	**4.5%**
% of Revenues	25.7%	25.2%		
Depreciation, amortization, provisions and write-downs	(169)	(116)	(53)	45.7%
Net Operating Result	**206**	**243**	**(37)**	**(15.2%)**
% of Revenues	14.1%	17.1%		
Capex	214	264	(50)	(18.9%)
FTE	6,703	6,571	132	2.0%

In 2023, the Waste Business Unit recorded revenues of 1,458 million euro, an increase of 2.5% compared to the previous year (1,422 million euro at December 31, 2022): the increase in revenues from the sale of electricity from waste-to-energy plants more than compensated for the decrease in revenues from paper disposal resulting from the drop in prices recorded in 2023 compared to the previous year.

Operating costs amounted to 718 million euro (710 million euro at December 31, 2022). In 2023, higher costs were recorded, in particular for the supply of biomass, costs for the disposal of dust from waste-to-energy plants, costs for the maintenance of treatment plants and costs for the expansion of material recovery activities (FORSU Lacchiarella and Cavaglià). These increases were partially offset by lower expenses for paper purchases, organic waste disposal and vehicle fuel.

Labour costs stood at 365 million euro, up 12 million euro compared to 2022 (+3.4%). Of this change, more than 50% was due to an increase in FTE (6,703 FTE in 2023 compared to 6,571 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 nearly 6 million euro was substantially determined by the effects of the application of the national urban hygiene Labour contract and other remuneration increases.

The EBITDA of the Waste Business Unit equaled 375 million euro (359 million euro at December 31, 2022).

Net of non-recurring components recorded in the two comparison periods (+3 million euro in 2023 and +9 million euro in 2022), the Ordinary Gross Operating Margin stood at 372 million euro, an increase of 22 million euro compared to the previous year (+6%).

This result was determined by:

- +8 million euro related to the Collection segment mainly due to lower costs for the disposal of the organic fraction of waste and lower expenses for vehicle maintenance and fuel, which more than offset the increase in personnel costs;
- +14 million euro related to Municipal Waste Treatment Plants mainly due to the increase in electricity revenues from waste-to-energy plants and the higher margins of biomass plants (Sant'Agata di Puglia), despite the increase in raw material costs.

Depreciation, amortization, provisions and write-downs amounted to 169 million euro (116 million euro in 2022). The change was due to higher depreciation and amortization (11 million euro) related to investments made in 2023 and an increase in provisions for risks net of releases (+42 million euro) mainly due to lower releases compared to the previous year of excess landfill and reclamation provisions in the amount of 32 million euro related to the change in discount rates.

As a result of these changes, Net Operating Income totaled 206 million euro (243 million euro at December 31, 2022).

Capex for the reporting year stood at 214 million euro and regarded:

- development interventions for 112 million euro, of which 64 million euro relating to waste-to-energy plants (including line 3 of the Parona waste-to-energy plant and the fume purification line of the Brescia waste-to-energy plant), 9 million euro for material recovery plants, 9 million euro for OFMSW plants (Lacchiarella, Cavaglià and Castelleone), 8 million euro for biomass plants, 18 million euro for other treatment plants and 4 million for the collection sector;
- 102 million in maintenance work on waste-to-energy plants (44 million euro), treatment plants (22 million euro) and the collection sector (36 million euro).

5.6
Smart Infrastructures Business Unit

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

534
mln €
Ebidta
+4.3% compared to 2022

631
mln €
Capex
560 mln € in 2022 (+12.7%)

1,599
mln €
RAB Gas
(+6.7% vs 2022)

953
mln €
RAB Electricity
(+15.2% vs 2022)

457
mln €
RAB Water Services
(+14.5% vs 2022)

2,898
GWht
Heat and cold sales
(+0.1% vs 2022)

Operating figures

Networks	12 31 2023	12 31 2022	Change	% 2023/2022
Electricity distributed (GWh)	10,882	11,238	(356)	(3.2%)
Gas distributed (Mcm)	2,503	2,726	(223)	(8.2%)
Water distributed (Mcm)	69	75	(6)	(8.0%)
RAB Electricity (M€) (*)	953	827	126	15.2%
RAB Gas (M€) (*)	1,599	1,498	101	6.7%
RAB Water (M€) (*)(**)	457	399	58	14.5%

(*) Provisional figures, underlying the calculation of allowed revenues for the period.
(**) The value in 2022 does not include the municipalities of ASVT transferred in 2023.

In 2023, the RAB for electricity, gas and water services were up by 15.2%, 6.7% and 14.5%, respectively, thanks to increased investments.

Heat GWht	12 31 2023	12 31 2022	Change	% 2023/2022
SOURCES				
Plants in:	**1,281**	**1,363**	**(82)**	**(6.0%)**
- Lamarmora	179	330	(151)	(45.8%)
- Famagosta	44	61	(17)	(27.9%)
- Tecnocity	62	59	3	5.1%
- Canavese	114	142	(28)	(19.7%)
- Linate and Malpensa	228	96	132	n.s.
- Other plants	654	675	(21)	(3.1%)
Purchases from:	**2,001**	**1,932**	**69**	**3.6%**
- third parties	412	373	39	10.5%
- other Business Units	1,589	1,559	30	1.9%
Total Sources	**3,282**	**3,295**	**(13)**	**(0.4%)**
USES				
Heat sales to end customers	2,757	2,816	(59)	(2.1%)
Distribution losses	525	479	46	9.6%
Total Uses	**3,282**	**3,295**	**(13)**	**(0.4%)**
Cold sales	**141**	78	63	80.8%
Electricity from cogeneration	**726**	421	305	72.4%

Notes:
- The figures only refer to district heating and include cold sales.
- Purchases include the quantities of heat purchased from the Waste Business Unit.

The Business Unit's 2023 heat and cooling sales stood at 2,757GWhtc (-2.1%) and 141GWhtf (+80.8%) respectively. The year under review benefited from the contribution of A2A Airport, a company consolidated from the fourth quarter of 2022, thanks to which the lower heat sales of the other companies in the segment were partly offset and cold sales increased by 80.8%.

A2A Airport's contribution is also evident in relation to electricity production, which increased by 305GWh.

Economic figures

millions of euro	01 01 2023 12 31 2023	01 01 2022 12 31 2022	Change	% 2023/2022
Revenues	1,552	1,529	23	1.5%
Operating expenses	(904)	(905)	1	(0.1%)
Labour costs	(114)	(112)	(2)	1.8%
Gross Operating Margin - EBITDA	**534**	**512**	**22**	**4.3%**
% of Revenues	34.4%	33.5%		
Depreciation, amortization, provisions and write-downs	(304)	(264)	(40)	15.2%
Net Operating Result	**230**	**248**	**(18)**	**(7.3%)**
% of Revenues	14.8%	16.2%		
Capex	631	560	71	12.7%
FTE	3,147	3,075	72	2.3%

The Smart Infrastructures Business Unit's revenue for 2023 amounted to 1,552 million euro (1,529 million euro at December 31, 2022). The higher revenues from gas and electricity distribution due to the increase in investments 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 on a like-for-like basis and the dynamics of unit prices, as well as the decrease related to the Public Lighting segment.

Operating costs stood at 904 million euro, in line with the previous year (905 million euro in 2022). The increase in costs following the consolidation of A2A Airport for approximately 50 million euro and the increased activities relating to the superbonus were offset by the decrease in the costs of supplying raw materials (gas and heat) and in energy costs in general.

Labour costs amounted to 114 million euro (112 million euro in the previous year). The change is attributable to higher costs related to the increase in resources (+72 FTE) as a result of hiring in 2022 and 2023 and the consolidation of A2A Airport and salary increases partly offset by higher capitalization.

The Gross Operating Margin of the Smart Infrastructures Business Unit in 2023 was 534 million euro (512 million euro at December 31, 2022).

Net of non-recurring items (+19 million euro in 2023; +17 million euro in the previous year), the Business Unit's ordinary Gross Operating Margin was 515 million euro, up 20 million euro compared to 2022.

The change in margins is distributed as follows:

- +17 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, and higher connection contributions;
- +11 million euro relating to the gas distribution network due to an increase in the restriction on revenues admitted for regulatory purposes due to an increase in investments and inflation;
- +15 million euro related to the water cycle attributable to the decrease in electricity costs and the increase in regulated revenues;
- -17 million euro relating to heat due to lower volumes of district heating sold by companies in the sector with the same perimeter and higher operating costs. This contraction in margins was partially offset by the contribution of the new company A2A Airport and the marginality of heat management related to the superbonus business;
- -6 million euro related to the public lighting segment due to the adjustment of fees to changes in energy costs.

Depreciation, amortization, provisions and write-downs equaled 304 million euro (264 million euro as at December 31, 2022). The change is attributable for 24 million to higher depreciation and amortization (for investments made in 2023, for the change in the scope of consolidation and for the replacement of gas meters with consequent change in useful life) and for the remainder to higher provisions for risks and bad debts.

As a result of the above changes, Net Operating Income amounted to 230 million euro (248 million euro at December 31, 2022).

Investments in the period in question amounted to 631 million euro and regarded:

- 249 million euro 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;
- 147 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;
- 101 million euro in the integrated water cycle sector, maintenance and development work carried out on the water transportation and distribution network and work and refurbishment of the sewerage networks and purification plants;
- 107 million euro in the district heating and heat management segment: development and maintenance of plants and networks;
- 13 million euro in public lighting for new projects;
- 8 million euro in the e-mobility sector for the installation of new recharging stations;
- 6 million euro in the Smart City segment, mainly laying fiber optics, radio frequencies and data centers.

5.7

Corporate

Economic figures

millions of euro	01 01 2023 12 31 2023	01 01 2022 12 31 2022	Change	% 2023/2022
Revenues	337	320	17	5.3%
Operating expenses	(230)	(221)	(9)	4.1%
Labour costs	(173)	(151)	(22)	14.6%
Gross Operating Margin - EBITDA	**(66)**	**(52)**	**(14)**	**26.9%**
% of Revenues	(19.6%)	(16.3%)		
Depreciation, amortization, provisions and write-downs	(74)	(59)	(15)	25.4%
Net Operating Result	**(140)**	**(111)**	**(29)**	**26.1%**
% of Revenues	(41.5%)	(34.7%)		
Capex	110	73	37	50.7%
FTE	1,730	1,628	102	6.3%

Operating costs increased 9 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 22 million euro, about 40% of which is attributable to a higher number of FTE (+102 units compared to the previous year, +6.3%) due to the additions made in 2022 and 2023 to strengthen certain business areas, in line with the Group's development needs and objectives. The remainder of the change is related to higher unit costs (+3.6%) for salary increases (contractual renewals, bonuses and salary policy actions) and higher charges for mobility and redundancy incentives.

The Gross Operating Margin, corresponding to the Corporate structure costs not charged back to the various Group companies in the year under review, amounted to -66 million euro (-52 million in 2022).

Net of non-recurring items (-9 million euro in 2022), the Corporate ordinary Gross Operating Margin was down -23 million euro compared to 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 equaled 74 million euro (59 million euro as at December 31, 2022). The change is attributable to higher depreciation and amortization of 10 million euro and higher provisions for risks of 5 million euro.

After depreciation, amortization, provisions and write-downs there was a Net operating loss of 140 million euro (a net operating loss of 111 million euro at December 31, 2022).

Capex in 2023 totaled 110 million euro and mainly refer to work on IT systems (54 million euro) and buildings (49 million euro).

6

Evolution of the regulation and impacts on the Business Units of the A2A Group

The second half of 2021 saw a situation of high tension and volatility in the energy markets, which escalated in February 2022 following the outbreak of the Russian-Ukrainian conflict and then gradually normalized during 2023, albeit at significantly higher price levels than pre-2021. 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 subsequently, 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; the payment in instalments of bills also with the intervention of SACE to support the liquidity needs of those involved; the withdrawal of 'extra-profits' accrued by certain operators, with amounts allocated to cover measures in favor of customers.

Only the regulatory provisions with an impact on 2023 are listed below.

Measures in the bill to support end customers to cope with the energy crisis

With subsequent regulatory provisions[1], the following measures were taken to support end customers, both domestic and industrial:

- tax credit for industrial customers: limited to the first and second quarters of 2023, relief in the form of a tax credit (albeit reduced compared to 2022) has been provided for both energy-intensive companies with meters with an available power of 4.5 kW or more and gas-intensive companies, as well as for those other than the latter;
- electricity: zeroing of general system charges limited to Q1 2023;
- natural gas: elimination of general system charges and application of VAT reduced to 5% for the consumption of natural gas intended for civil and industrial uses and for the supply of district heating services for the entire year. Until April 2023, the negative UG2 discount component also applied;
- social bonus: strengthening of the instrument, including by revising the scope of application (broadening the ISEE threshold to 15,000 euro, 30,000 euro for large families) and introduction, for Q4 2023 only, of an extraordinary contribution.

Law Decree no. 4 of January 27, 2022, converted into Law no. 25 of March 28, 2022 ("Sostegni ter" LD)

Art. 15 bis of "Sostegni ter" LD, as amended by art. 11 of LD 9 August 2022, no. 115 ("Aiuti bis" LD 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 fueled by renewable sources incentivized through the energy account and for all plants fueled by renewable sources that are not incentivized and that entered into operation by January 2010. The mechanism established 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 mechanism.

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 was 93 million euro.

Law Decree no. 14 of February 25, 2022, converted into Law no. 28 of April 5, 2022 ("Ukraine" LD)

In order to reduce gas consumption, the "Ukraine" LD established the possibility of maximizing the use of coal and oil thermoelectric plants. Terna S.p.A. 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. The maximization program ran from September 19, 2022 to September 30, 2023.

1 For Q1 2023, see Budget Law 2023; for Q2, see LD March 30, 2023, no. 34; for Q3, see LD June 8, 2023, no. 79; for Q4, see LD September 29, 2023, no. 131.

Law Decree no. 21 of March 21, 2022, converted into Law no. 51 of May 20, 2022 ("Taglia Prezzi" LD)

The combined provisions of article 37 of "Taglia Prezzi" LD and article 55 of LD no. 50 of May 17, 2022 ("Aiuti" LD 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), 2.6 million euro was offset in 2023, while the remaining 8.1 million euro will be offset at a later date. In addition, as a result of the Revenue Agency's acceptance of the request for appeal filed by A2A Energiefuture S.p.A., the contribution already paid in 2022 and amounting to approximately 36 million euro is no longer due and the company will file a supplementary tax return requesting a refund of the amount, subject to further assessment as to whether the credit can be offset.

Law Decree no. 115 of August 9, 2022, converted into Law no. 142 of September 21, 2022 ("Aiuti bis" LD)

Article 3 suspended until April 30, 2023 (term then extended to June 30, 2023) 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, 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 ("Aiuti quarter" LD)

The term for the termination of the protection service for domestic gas customers and condominiums was extended from January 1, 2023 to January 10, 2024.

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 "Sostegni ter" LD. The measure had no impact on the A2A Group in 2023;
- a new solidarity contribution equal to 50% of the amount of the share of income determined for income tax purposes for 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 to the same activities identified by "Taglia Prezzi" LD plus the sale of electricity, and is due if at least 75% of the revenues of the 2022 tax period derive from these activities. The contribution, accruing in 2022, was paid in H1 2023 and amounts to approximately 117 million euro (non-deductible contribution).

6.1
Generation and Trading Business Unit

Remuneration of the availability of production capacity: start of capacity market from 2022

The capacity remuneration mechanism (so-called capacity market) aims to ensure the adequacy of the electricity system in the face of sudden peaks in demand or supply shortages. The instrument is configured as a contract for differences entered into with Terna S.p.A. and awarded following a tender 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 2019, tenders were held for the delivery years 2022 and 2023 where A2A S.p.A. was awarded about 5 GW/year (of which about 0.12 GW for 2022 and 0.24 GW for 2023 related to new capacity). The award price in both tenders was 33,000 €/MW/year for existing capacity and 75,000 €/MW/year for new capacity (15 years).

The tender for the 2024 delivery was held in 2022, where A2A S.p.A. was awarded approximately 5.4 GW/year, of which 1.3 GW of new construction (including CCGT, photovoltaic, electrochemical storage) and in particular: 4,096 MW of existing CDP[2] (33,000 euro/MW/year), 20 MW of new authorized CDP (70,000 euro/MW/year), 1,311 MW of new unauthorized CDP (48,110 euro/MW/year). With reference to the new unauthorized CDP, the failure to obtain the certificates for the Cassano CCGT by the deadline of June 30, 2023 led to the termination of the contract (541 MW) and the withholding of the guarantee and the non-interest-bearing security deposit for an amount of about 1.9 million euro. In contrast, for the Monfalcone CCGT (770 MW), the construction process is underway. With regard to the new CDP for the repowering of the Cassano and Chivasso plants, A2A S.p.A. paid a penalty of about 860 thousand euro for failing to comply with the obligation to appoint 50% of the new CDP on relevant plants with new CDP for the period July 2022-June 2023.

The mechanism has been the subject of appeals both at national level and at the EU Court of Justice. In the EU, the Ruling of September 7, 2022 dismissed the appeals with the conclusion of the litigation; the hearing on the merits of the Lombardy TAR is expected in 2024.

With reference to the deliveries for 2025, 2026 and 2027, Terna S.p.A. published a consultation regarding amendments to the Regulations, aimed at overcoming certain critical aspects of the provisions currently in force. New tenders could be held during 2024.

San Filippo del Mela and Monfalcone: essentiality regime and maximization of non-gas thermoelectric production

In 2023, the San Filippo del Mela fuel oil plant of A2A Energiefuture S.p.A. was included in the list of essential plants and admitted to the cost reintegration regime pursuant to Resolution 741/2022/R/eel. As a continuation, also for 2024, the plant is subject to the same regime pursuant to Resolution 502/2023/R/eel.

With reference to the technical-economic parameters, Resolution 223/2023/R/eel accepted the company's request, formulated in light of the change in fuel used in the power plant with effect from August 18, 2021, to modify the standard efficiency proposed by Terna S.p.A. for the period from August 18, 2021 until 2022. In addition, the same resolution approved the request for a change in the standard methodology for calculating specific fuel consumption.

San Filippo del Mela and the Monfalcone coal-fired plant were included in the non-gas thermoelectric production maximization program pursuant to "Ukraine" Legislative Decree: until March 31, 2023, the program envisaged the continuous operation of both plants, while from April 1, 2023 until September 30, 2023, only their continuous availability was envisaged.

2 CDP: Capacity Available in Probability.

Brindisi: forward procurement of resources for voltage regulation

In 2019, the Brindisi plant of A2A Energiefuture S.p.A., pursuant to Resolution 675/2018/R/eel and the subsequent tender procedure announced by Terna S.p.A., was awarded a ten-year contract for the supply of reactive energy amounting to 286 MVAr at a weighted average price of 28,098 euro/MVAr/year. The total for 2023 amount is 11.06 million euro.

Gas Storage and Regasification

The MASE Ministerial Decree of March 31, 2023 and 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 to allow counter-flow injections during the supply period.

In the tenders called by Stogit S.p.A. at the beginning of April, A2A S.p.A. conferred 480 million Smc of storage capacity (of which 455 million Smc of peak modulation and 25 million Smc of uniform modulation) in addition to the 40 million Smc 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 H1 2023, A2A S.p.A. was awarded two long-term contracts for regasification capacity amounting to 200 million Smc/year for 10 years (OLT) and 210 million Smc/year for three years (FSRU Piombino).

Incentives for production from renewable sources: state of the art

In 2023, the tenders for the allocation of incentive tariffs for renewable electricity production under the Ministerial Decree of July 4, 2019 (now the only support mechanism in force) continued, the duration of which was extended until the incentive power quotas were exhausted. In November 2023 was the conclusion of the 13th tender, where VGE 06 S.r.l. participated with a 29.4 MW wind power project located in the Municipality of Banzi. The publication of the results is expected at the beginning of 2024.

In 2024, a new MASE Ministerial Decree is expected to be adopted to incentivize renewable sources that will introduce some changes to the methods of recognition of incentives as well as the MASE Ministerial Decree that will identify the criteria for the identification, by the Regions, of the so-called areas suitable for the construction of renewable energy plants.

At December 31, 2023, the incentives paid by the GSE to the A2A Group›s plants powered by renewable sources amounted to 41 million euro.

GSE incentive type millions of euro	
Feed in tariff	-
TO and RID	8
Energy account (FV)	33
Total	**41**

6.2
Market Business Unit

Removal of the greater protection service for electricity micro-companies

Similarly to what has already been provided by Resolution 491/2020/R/eel for electricity micro-companies, Resolution 208/2022/R/eel defined the rules for the assignment through tender of the Gradual Protection Service (STG) of micro-companies with power up to 15 kW without a supplier on the free market (about 2 million POD for 5 TWh/year of consumption). The tender procedures organized by Acquirente Unico S.p.A. assigned 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. was awarded 4 lots, the upper limit of the 35% antitrust threshold, i.e. about 500,000 PODs for 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.

Removal of the electricity greater protection service for non-vulnerable domestic customers

Resolution 362/2023/R/eel, as amended by Resolution 600/2023/R/eel, set July 1, 2024 as the end date of the greater protection service for non-vulnerable domestic customers[3]. Those who will not have chosen an offer on the free market by that date will be served within the STG (gradual protection service) by operators selected through a tender held on January 10, the results of which will be made final on February 6. The tender, organized on January 10 by Acquirente Unico S.p.A., assigned 26 lots for a total of approximately 4.9 million PODs for the period July 1, 2024 – March 31, 2027; the lots were awarded based on the lowest price offered, expressed in euro/POD/year, to cover marketing and imbalance costs not already recognized by ARERA.

Vulnerable domestic customers will continue, even after July 1, 2024, to be supplied in the greater protection service by the current operators.

Removal of the gas protection service for non-vulnerable domestic customers and condominiums

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 customers[4] who will maintain the right to regulated supply conditions.

Customers still served under gas protection regime received 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 service, the vulnerable customer will be supplied by the current seller at a tariff defined by ARERA (former protection) while the non-vulnerable customer will be charged a variable PLACET offer, where the seller could only define the annual fixed component (sales charge).

3 Legislative Decree 210/2021 defined as vulnerable domestic customers with one of the following conditions:
- are in an economically disadvantaged condition or have a serious health condition requiring the use of electricity-powered medical/therapeutic equipment (or where persons in such a condition are present);
- are at least 75 years old;
- are persons with disabilities within the meaning of Article 3 of Law 104/1992;
- have utilities in an emergency housing facility following calamitous events;
- have utilities on a smaller, non-interconnected island.

4 LD no. 115 of August 9, 2022 ("Aiuti bis" LD) defined gas vulnerable customers as civil customers:
- who are economically disadvantaged within the meaning of Article 1(75) of Law 124/2017;
- who are among the disabled within the meaning of Article 3 of Law 104/1992;
- whose utilities are located in the non-interconnected smaller islands;
- whose utilities are located in emergency housing facilities following calamitous events;
- over 75 years of age.

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 were automatically accredited in the List, except for the need to formalize the registration by submitting a self-declaration by April 16, 2023. All authorized Group companies have completed the registration process.

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 euro/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

RCV euro/POD/year	APRIL 1, 2022 MARCH 31, 2023		APRIL 1, 2023 MARCH 31, 2024	
	C-North	C-South	C-North	C-South
RCV				
Domestic POD	30.14	34.06	27.04	30.71
Other uses POD	48.74	71.40	-	-
RCVsm*				
Domestic POD	44.73	48.31	39.63	42.92
Other uses POD	69.72	129.29	-	-
RCVi				
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 (≤ 10 MIO POD)

QVD euro/PDR/year	APRIL 1, 2022 MARCH 31, 2023		APRIL 1, 2023 MARCH 31, 2024	
	€/PDR/year	c€/mc	€/PDR/year	c€/mc
Domestic PDR	67.32	0.7946	63.36	0.7946
PDR condominium home use <200,000	88.41	0.7946	83.2	0.7946

Additional mechanisms to cover efficient costs on the protected market

With reference to the additional cost compensation mechanisms for the electricity greater protection service, the following is noted:

- in May 2023, A2A Energia S.p.A. submitted a request for access to the mechanism regarding the exit of customers from the greater protection service, aimed at recognizing the additional fixed cost connected to a customer exit rate towards the free market greater than that implicitly already recognized by the RCV component, for an amount equal to 430,000 euro, which was paid in the 2nd half of 2023 (PUC 2022);
- in April 2023, A2A Energia S.p.A. submitted a request for access to the mechanism to compensate for arrears of end customers, aimed at recognizing any charges related to arrears exceeding the unpaid ratio already considered by the RCV component (COMP 2022), for an amount equal to about 1.255 million euro, which was paid in the 2nd half of 2023;
- in July 2023, A2A Energia S.p.A. filed an application for access to the incentive mechanism for greater dissemination of bills in dematerialized format, aimed at recognizing the costs incurred for the recognition of the discount on bills to customers who jointly activate automatic debit and the dematerialized sending of bills. In the 2nd half of 2023, CSEA recognized and paid A2A Energia S.p.A. an amount of about 163,000 euro.

Interventions to support flooded areas

Resolution no. 267/2023/R/com implemented the provisions of LD no. 61 of June 1, 2023 ("Alluvione" LD) 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, with subsequent extension until October 31, 2023, for customers who have suffered the greatest damage, 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 "Alluvione" LD.

For beneficiaries, until the end of the suspension, the arrears regulations do not apply, even in the case of arrears occurring before May 1, 2023. From the end of the suspension and no later than March 31, 2024, the seller will be obliged to issue a settlement invoice accounting for the suspended amounts, which must be paid in instalments for 12 months.

Similarly, Resolution 519/2023/R/com ordered the suspension of payment terms for water, electricity and gas bills issued or to be issued to protect users and supplies located in the provinces of Florence, Livorno, Pisa, Pistoia and Prato affected by the exceptional weather events of November.

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.

Closure of preliminary investigation proceedings by the AGCM (Competition and Market Authority) with respect to A2A Energia S.p.A. as to the implementation of the provisions of article 3 of "Aiuti bis" LD (PS12470)

On July 25, AGCM closed the preliminary investigation procedure (PS12470) started on December 13, 2022 against A2A Energia S.p.A. for alleged changes in the price of electricity and gas supply in violation of the provisions of Article 3 of "Aiuti bis" Law Decree.

The proceedings were closed without finding an infringement and making mandatory the commitments presented by A2A Energia S.p.A. aimed at increasing the degree of information transparency towards customers. On September 28, the company sent a report on compliance with the commitments made binding.

6.3
Waste Business Unit

Waste Pricing Method for the second regulatory period 2022-2025 (MTR-2)

Resolution 389/2023/R/idr updated the criteria for recognition of the efficient operating costs for the regulatory period 2024-2025 (MTR-2), confirming the general approach and establishing the rules for defining the access tariffs to the mixed waste and OFMSW 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 (only to "minimum plants").

With reference to the urban hygiene service, in H2 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 of the Authority.

			PEF tariff revenue (values in millions 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
610/2023/R/rif	Lodi	Linea Gestioni S.r.l.	7.8	7.8	7.8	7.8

In most cases, in continuity with 2020-2021 and in the presence of assignments obtained after tenders, ETC availed itself of the option of preserving any efficiencies already achieved, 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.
In addition, the ETC will have to adjust their existing contracts in accordance with the service contract scheme defined in Resolution 385/2023/R/idr within 30 days of the adoption of the relevant 2024-2025 biennial tariff update determinations.

With reference to treatment, ARERA has introduced asymmetrical tariff regulation, to be determined by the individual entities territorially competent (ETC), i.e.in Lombardy by the Region. The Authority has established, as a criterion 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.

Region	Resolution deed	Decision
Lombardy	Resolution of the Council no. 5777/2021	Treatment plants for mixed waste and OFMSW were declared "additional". Publication of the "main criteria underlying the identification of fees" on the operator's website is required
Piedmont	Executive Decree no. 649/2022	The Villafalletto landfill and mechanical biological treatment plant (TMB) were declared "minimum" for the years 2022 and 2023. Subsequently, the ETC approved the PEF 2022-2025 for the Villafalletto plant
Campania	Resolution of the Council no. 190/2022	The Caivano TMB and the Acerra waste-to-energy plant (TMV) were declared "minimum" for the years 2022 and 2023. With Executive Decree no. 235/2022, the ETC approved the 2022-2025 PEF for the Acerra plant

Recent administrative rulings on “minimum” plants: OFMSW and Mixed

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;
- the subsequent award of the flows to these plants by a negotiated procedure without a call for tenders.

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 aforementioned Rulings to the Council of State, pointing out that the identification of “minimum” plants is expressly provided for by the National Waste Management Plan (PNGR) among the criteria of regional planning, according to a coordinated action between institutions. In Rulings no. 10548 and no. 10550 of December 6, 2023, the Council of State rejected ARERA’s appeal, considering that the regulator’s action would have gone beyond the scope of tariffs, as it would have carried out planning activities that were not within its competence. A possible ministerial intervention is expected, also through possible regulatory changes related to the PNGR, which could lead to a different regulatory framework between mixed waste and OFMSW.

Quality regulation of the municipal waste management service (2023-2025)

Resolution 15/2022/R/rif approved the “Consolidated act 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.

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 operators, 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	**Quality contractual = NO**	SCHEME I Minimum quality level	SCHEME III Intermediate quality level
	Quality contractual = 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.

Monitoring and transparency obligations on the efficiency of separate collection and municipal waste treatment plants

Resolution 387/2023/R/rif introduced a first set of indicators on the efficiency and quality of separate collection as well as the reliability of treatment plants. The monitoring of these indicators starts in 2024, with the first transmission to ARERA in 2025.

Establishment of equalization systems also in the municipal waste sector

Resolution 386/2023/R/rif introduced equalization systems in the waste sector, providing for two components applied to the TARI to be paid by users from January 1, 2024:

- UR1 to cover the costs of managing waste accidentally fished out of the sea and waste voluntarily collected, amounting to 0.10 euro/user;
- UR2 to cover the benefits recognized for exceptional and calamitous events, amounting to 1.50 euro/user.

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 guarantee of origin). Projects will also receive a capital grant of up to 40% of the costs, using PNRR funds.

Starting with the third competitive procedure, opened on December 22, 2023, the tariffs and maximum eligible costs have been adjusted for inflation, as provided for by LD 57/2023 ("Rigassificatori" LD).

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 Cavaglià came into operation in 2022, while those of Corteolona and Castelleone benefiting from the extension of the Ministerial Decree of August 5, 2022, came 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 Ukraine LD. This plant was scheduled for continuous operation from April 1, 2023 to September 30, 2023.

The regime applied is that of ordinary essentiality with some exceptions and exemptions (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). The company applied for the standard valuation methodology for the fuel used and is awaiting approval by the Authority.

Legislative Decree 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

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 deed sets two deadlines for transposition: December 31, 2023 and June 30, 2024 only for the regulation of Chapter IV-bis 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.

MD 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

The MD introduces the new waste traceability system (so-called RENTRI), regulating in particular:

- 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;
- 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 Register;
- 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 60 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.

6.4

Smart Infrastructures Business Unit

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.

Value of RAB GAS underlying provisional reference tariffs 2023 millions of euro	Unareti	ASVT	LD Reti	Reti Più	Acinque Group (1)	Total
Centralized cap.	46	1	10	12	11	80
RAB Distribution	835	12	162	140	146	1,295
RAB Metering	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.

Unareti S.p.A.'s provisional 2023 admissible revenues are affected by the transition to the management on an ATEM basis of the Area Milan 1[5] with application of the specific tariff criteria provided.

Tariff regulation for the natural gas distribution and metering service 2020-2025

Resolution 570/2019/R/gas (approving the 2020-2025 RTDG) was challenged by Unareti S.p.A.: a number of rulings have already been published on appeals filed by various operators of different sizes, which have partially upheld their grievances, highlighting, among other things, the presence of a material error in the calculations made to define the starting level of the operating costs recognized for distribution activities and the relative annual reduction (so-called X-Factor). The Authority, faced with this, on the one hand appealed against the rulings to the Council of State and, on the other hand, with Resolution 409/2023/R/gas corrected the material error, redefining, as a result, both the X-Factor for the 2020-2025 period and the 2020-2022 definitive and 2023 provisional reference tariffs, with an impact, at A2A Group level, of about 1.7 million euro.

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 introduction of a mitigation mechanism of the negative impacts on the parametric allowed revenues to cover distribution operating costs resulting from the closure of gas Points of Redelivery (PoR) as a consequence of the increasing electrification. This mechanism, based on trigger logics to be activated upon the occurrence of certain conditions[6], will be managed within the scope of equalization from 2023 revenues with an estimated impact of about 0.9 million euro.

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 SII 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 SII and compensation to end customers).

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.

Reorganization of gas metering activities at entry and exit points of the natural gas transport network (RMTG)

Resolution 512/2021/R/gas approved the "Regulation of the metering service on the natural gas transportation network (RMTG)", which defines, with reference to the metering plants pertaining to the perimeter of the natural gas transportation network, the responsibilities and scope of metering and meter reading activities, the minimum and optimal plant requirements, performance and maintenance requirements, and commercial quality levels of the metering activity.

The new regulation places greater responsibility on the owners of the metering plant and those responsible for the reading activity through an articulated system of penalties and compensation aimed at providing an adequate price signal for non-compliance with the required service quality levels and thus stimulate interventions aimed at upgrading the metering plants, resulting in an improvement in their performance. This system will run from 2024, after the coordination (2022) and first performance monitoring (2023) phases.

Snam Rete Gas S.p.A., as a major transportation company, consulted on specific amendments to the Transport Network Code to incorporate these provisions and identify the operating procedures for their application in relations with various subjects, then approved with Resolution 600/2022/R/gas.

Mechanism for empowering natural gas distribution companies in delta in-out management (Delta IO)

Resolution 386/2022/R/gas defined a mechanism for making distribution companies responsible for managing the so-called Delta IO (i.e. the difference between the gas injected into the distribution network measured at the Re.Mi (citygate) cabin and the gas withdrawn at the end-customer's PoR/interconnection points with other networks) aimed at intercepting the most manifest and macroscopic inefficiency situations.

The mechanism is based on the comparison, for each citygate, between the minimum and maximum admissible reference values of the Delta IO calculated for homogeneous groups of plants and the actual Delta IO value of the specific citygate and on the consequent valorization of the result by means of a reference unit price of gas should the actual value fall outside the "exemption band" determined by the minimum and maximum admissible values; the calculation excludes gas quantities relating to localized losses and fraudulent withdrawals detected and appropriately quantified by the distributors.

The first application will be made in the second part of 2024 with reference to the three-year period 2020-2022 using the outcomes of the multi-year adjustment session of the gas settlement process.

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.

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, defined by Resolution 497/2023/R/com.

Value of the RAB of Retragas S.r.l. underlying the final 2023 tariffs and the reference revenues for the calculation of the 2024 tariff fees millions of euro	2024 Tariffs	2023 Tariffs
RAB Transport	54.3	52.4
RAB Metering	1.7	1.6
Total RAB	**56.0**	**54.0**

The 2024 reference revenues already approved:

- will change due to the effect of the update of the WACC 2024 (from 5.1% to 5.9%) and due to the ex-post application of the new ROSS tariff logic;
- are affected, as the final 2023 allowed revenues, by the exclusion from the recognized capital of the network segment "S05 - ValStaffora" reclassified as a distribution network 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.

Pilot projects in the natural gas sector

Resolution 590/2023/R/gas approved the ranking of pilot projects eligible for the incentive provided for by Resolution 404/2022/R/gas, which had allocated a ceiling of 35 million euro to finance experiments in the gas distribution sector lasting up to three years and falling within the following project areas:

- methods and tools for optimized network management (green gas development, reduction of fugitive emissions);
- innovative uses of existing infrastructure (green gas development);
- innovation interventions on the regulated infrastructures of the natural gas supply chain (increasing energy efficiency, digitalizing networks).

The table shows the 4 pilot projects approved by ARERA for gas distributors of the A2A Group: the total financing obtained exceeds 4.3 million euro.

Project	Company	Project description	Tariff contribution allowed
Smart Grid project: Dynamic pressure management	Unareti	Reduction of fugitive methane emissions by varying the operating pressure of the network according to demand trends, optimizing characteristic parameters	925,328 €
Energy recovery: Macconago turboexpanders	Unareti	Integration with turboexpanders with the rolling lines of the Remi di Macconago cabin, to recover the energy dissipated during gas decompression	1,031,182 €
Reverse flow plant pilot project	LD Reti	The project proposes the construction and operation of a plant for the compression of BioCH4 volumes fed into the distribution network and exceeding the consumption of end customers, into the transmission network by exploiting the DSO PoR	621,345 €
RetiPiù Smart Less CO2	RetiPiù	Reduction of fugitive emissions from underground pipelines of methane gas distribution systems by their preventive detection using cathodic protection and vibro-acoustic analysis (for PE sections)	1,776,519 €

2023 provisional reference tariffs for the distribution and metering of electricity

Resolution 206/2023/R/eel approved the 2023 provisional reference tariffs for distributors with more than 25,000 POD.

RAB ELECTRICITY value underlying 2023 provisional tariffs millions of euro	Unareti	LD Reti	RetiPiù	Reti Valtellina Valchiavenna	Total
RAB Distribution	813	57	25	17	912
RAB Metering	103	2	1	2	108
Total	**916**	**59**	**26**	**19**	**1,020**

Resolution 472/2023/R/eel approved the final 2018 reference tariffs for distributors with less than 25,000 POD, including Camuna Energia S.r.l., while Determination 2/2023 DINE provided provisions on equalization, also on account, for the period 2018-2023, the settlement of which took place, for the year 2018, in December 2023.

Electricity quality: resilience plans for the electricity grid

Title 10 of the TIQE defined, for 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.

Resolution 614/2023/R/eel updates the current regulation on resilience by providing for: the application of the incentive mechanism to distribution companies with at least 100,000 end customers, the evolution of the mechanism from a bonus-only perspective (no penalties foreseen for interventions admitted from 2024), a change in the formula for calculating the bonus, as well as the completion of the final balance extended to the year 2027. The measure also introduced a partial revision as of 2024 regarding both the admission of new investments and the exclusion of those interventions, previously admitted, that meet certain characteristics[7].

Resolution 617/2023/R/eel[8] introduced a new incentive mechanism for development interventions on distribution networks carried out by operators with more than 100,000 POD and subject to the preparation of the development plan (former Resolution 296/2023/R/eel). The new mechanism incorporates the previous incentive system for increasing resilience. There is a first application phase, which includes investments started as of January 1, 2024 with application by February 28, 2024, and a full application phase that covers investments started between January 1, 2025 and December 31, 2027 with application by June 30, 2026. In both phases, however, investments already included in the incentive mechanism defined in the TIQE 2020-2023 will be excluded and a cap system will be applicable[9].

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 resilience[10], 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.

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 January 1, 2020 - 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 (the Brescia area was completed in 2021 and installation is now concerning the Milan area). The progress of the plan is substantially in line with the forecasts, despite the difficulties caused, in recent years, by the so-called semiconductor crisis and the consequent impact on the procurement of meters.

Following the last reporting of the investments made (year 2022), which amounted to approximately 21 million euro, it is estimated that the application of the planned regulatory mechanisms (IQI Matrix) will generate a net penalty of modest amount.

7 Interventions characterized by an investment cost progress as at December 31, 2022 of less than 10% of the planned investment cost and a discounted B/C ratio of less than 1.5.

8 Resolution approving the output-based and commercial quality regulations for electricity distribution and metering services, effective January 1, 2024, contained in the new TIQD (technical/technical quality) and TIQC (commercial quality), respectively.

9 The cap is set at 13% of the minimum between the expected and actual investment value.

10 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 mechanism. Unareti S.p.A. included 4 new interventions for the first time in the Plan with an expected total cost of 0.58 million euro.

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 F3 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.

Resolution 630/2023/R/eel introduced a simplification of the fee structure, establishing a single fee bracket for excessive withdrawals (over 33% of the active) and for all reactive energy injections for end-customer points and MV and LV interconnections, maintaining the existing differentiations between the F1, F2 and F3 bands. In addition, Resolution 615/2023/R/eel, in relation to reactive energy exchanges in HHV and HV, confirmed the existing logic based on the increase of fees compared to the "base" level for reactive energy inputs[11] in nodes belonging to homogeneous areas that are characterized by a greater impact of reactive energy exchanges on grid voltages and voltage control costs.

Instruments to protect distributors' credit: general system charges and network charges

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 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 300,000 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.

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 Act - 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 upheld the complaint, ordering Unareti S.p.A. to reverse from the invoices issued the contributions charged (about 250,000 euro). The company appealed the measure.

Energy efficiency certificates and tariff contribution recognized to distributors

ARERA Resolution 340/2023/R/efr defined the tariff contribution to cover the costs incurred by distributors for the purchase of energy efficiency certificates for the compulsory year 2022 as 250.68 euro/TEE (250 euro tariff contribution + 0.68 euro additional fee).

In order to contain the financial exposure of obligated parties, Resolution 454/2023/R/efr revised the cancellation discipline in the account session:

- The tariff contribution on account was increased to 250.68 euro/TEE (for the November 2023 cancellation) up to 50% of the annual specific target and to 240 euro/TEE for excess titles;
- potentially cancellable volumes in the account session were increased to 50% of the specific target of the current year of obligation and 100% of the residues of the two previous years.

11 1.44 euro/Mvarh as "basic" fee and 2.00 euro/Mvarh for homogeneous areas.

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 operator;
- 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 resolved in favor of 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 period. The company appealed to the Regional Administrative Court, which, with Ruling no. 1708/2023 affirmed the right of Lereti S.p.A. to:

- recognition of inflation and default interest on past items 2010-2011;
- economic-financial rebalancing of the cost/revenue differential for the period 2001-2009 upon application to be submitted to the EGA pursuant to ARERA Resolution 656/2015/R/idr.

With a subsequent resolution of July 5, 2022, the EGA Board of Directors adopted the Guidelines outlining the billing methods for the past items relating to the period 2010-2011 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 6394/2023/R/idr approved the new water tariff method for the period 2024-2029 (MTI-4) and confirmed the average sector cost for electricity for 2022 equal to 0.2855 euro/kWh, guaranteeing, upon request, full cost recovery also in cases where this benchmark is exceeded. Moreover, the component covering the cost of financial and tax charges rises to 6.13% (vs. 4.8% previously).

Sale of the aggregated and expired managements of A2A Ciclo Idrico S.p.A. and ASVT S.p.A. to Acque Bresciane S.r.l., a totally public company created to manage the SII in the Province of Brescia

With Resolutions no. 11/2023 for A2A Ciclo Idrico S.p.A. and no. 17/2022 for ASVT S.p.A., the Brescia EGA concluded the preliminary investigation process concerning the determinations of the residual values (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 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.p.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 March 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 31 December 2022.

Contrary to the agreements signed between the parties on April 27, 2023, according to which Acque Bresciane S.r.l. was to take over from A2A Ciclo Idrico S.p.A. from October 1, 2023 with A2A Ciclo Idrico S.p.A. effectively ceasing operations on December 31, 2023, as of today, the date for the transfer of these managements is being updated.

Sale of the management of the Municipality of Cernobbio by Lereti S.p.A. to Como Acqua S.r.l., a totally public company created to manage the SII in the Province of Como

With Resolution no. 73 of December 20, 2022, 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.r.l. 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. The quantification of adjustments related to upgradable costs is currently being finalized. Following the final approval of the RV by ARERA, Como Acqua S.r.l. shall settle said amount.

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 PMD 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, among others, also the intervention 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 of 1.1 million euro.

MIMS Ministerial Decree no. 517 of 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. ASVT S.p.A. was awarded 27 million euro for the construction of the Alta and Media Valle Trompia district aqueduct.

Incentive mechanism for technical and contractual quality

Resolutions 476/2023/R/idr and 477/2023/R/idr approved the results of the “bonuses and penalties” incentive mechanism of the technical and contractual quality regulation for the two-year period 2020-2021. The A2A Group companies received a total of about 3.9 million euro.

	Contractual quality - RQSII		Technical quality - RQTI	
Operator	Bonuses (€) -	Penalties (€) -	Bonuses (€) -	Penalties (€) -
A2A Ciclo Idrico	769,087	-	870,579	2,685
Azienda Servizi Valtrompia	359,962	-	-	4,840
Lereti Como	359,962	-	1,062,712	-
Lereti Varese	359,962	-	248,756	81,931

Activities of ARERA in the regulation and control of the district heating/cooling sector

During the conversion into law of LD PNRR[12], 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.

Resolution 638/2023/R/tlr approved the TLR Tariff Methodology, which defines a transitional economic regulation for calendar year 2024, based on a revenue constraint calculated using the avoided cost methodology (gas) for the end customer, while from 2025, the adoption of a full regime method (which should remain RAB-based) is envisaged.

Below is a brief summary of the current regulatory framework of the sector:

- Resolution 313/2019/R/tlr defined, for the period

12 LD February 24, 2023, no. 13.

January 1, 2020 - December 31, 2023, the transparency provisions (TITT) with regard to the minimum contents of supply contracts and billing documents, the manner of publication of prices and other information on service quality and environmental performance. Resolution 344/2023/R/tlr updated these provisions from January 1, 2024, confirming most of the previous provisions and introducing the obligation to provide more information on environmental performance.

- 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 346/2023/R/tlr updated these provisions from January 1, 2024, confirming most of the previous provisions.
- 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 Act 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.
- Resolution 526/2021/R/tlr updated the provisions on commercial quality (RQCT) for the period January 1, 2022 - December 31, 2025, defining standard levels of services 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 said 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). A2A Calore & 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 for the development of the Lecco network (11.9 million euro)[13].

13 Law Decree 181/2023 (Law Decree on Energy Security - currently being converted into law) provided for the allocation of 96.7 million euro from the state budget to finance the winning projects of the PNRR call for proposals that were challenged by the EU Commission (due to the use of gas in thermal production). Only 14 of the 30 winning projects were deemed eligible by the Commission, while the remaining 16 (including the project of Acinque Energy Greenway S.r.l.) will be financed with this new budget. This led to a scrolling of the initial ranking list with the entry of two more projects by A2A Calore & Servizi S.r.l. (Politecnico di Milano-Bovisa and Santa Giulia).

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 AGCM 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.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 (and above all not related to costs). 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.

With a measure of November 28, AGCM resolved to subjectively extend the proceedings and the objections that had arisen also to Acinque S.p.A., as it is responsible for the management and coordination of Comocalor S.p.A. and Acinque Ambiente S.r.l..

7

Risks and uncertainties

7.1
Risks and uncertainties

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 consequences of the geo-political tensions linked to the crises between Russia and Ukraine and in the Middle East, having possible repercussions on more than one type of risk, are discussed in this opening section.

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 company 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, ongoing geopolitical tensions, with particular reference to the effects on ship traffic in the Suez Canal, could lead to both difficulties in the procurement of certain materials used in the ordinary operation/maintenance of plants and at the construction sites of development initiatives, and a potential increase in prices linked to the increase in ship transport costs (increase in insurance costs and lengthening of trade routes) with an impact on materials, equipment, machinery and services.

Lastly, it is noted that part of the expired concessions for the integrated water service in the territorial area of the

Province of Brescia was transferred to Acque Bresciane; A2A Ciclo Idrico S.p.A. will continue to manage the service for the concessions that have not been transferred, even though they have already expired. It cannot be ruled out that, in the future, Acque Bresciane may take over further expired concessions, with the consequent loss of the company's margins.

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 scientific-technological (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.

Legislative and regulatory risks

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 continuous enforcement of 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 in 2023, also over the setting of heat transfer prices in district heating[1].

Considering the significant contribution of regulated activities to overall margins, 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.

1 During the conversion into law of the LD February 24, 2023, no. 13 (PNRR LD), an amendment was inserted that modified art. 10, paragraph 17, letter e), of Legislative Decree no. 102/2014, extending ARERA competences over the district heating sector with the introduction of a cost-reflective regulation of service tariffs: Resolution 638/2023/R/tlr approved the TLR Tariff Methodology, which defines a transitional economic regulation for calendar year 2024, based on a revenue constraint calculated using the avoided cost methodology (gas) for the end customer, while from 2025, the adoption of a full regime method (which should be RAB-based) is envisaged.

The main topics involved in current changes in regulations and legislation, with major potential effects on the Group, are as follows:

- the rules governing reallocations of large-scale 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)[2];
- 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 2024;
- 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 with delivery in 2024, even though, with respect to this term, the power plant already benefits from a series of extensions also due to the coal maximization regime to which it has been subjected until September 30, 2023;
- 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 the regulation by ARERA;
- the impacts of possible tenders for the allocation of the protection service to vulnerable electricity customers;
- 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 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 fueled by non-renewable sources (including waste treatment plants).

Given the decline in energy commodity prices as well as the filling levels of gas storages, the introduction of any taxes and/or solidarity contributions on extra profits is not expected for 2024 either.

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

2 With reference to the Resio (BS) concession, owned by Linea Green S.p.A. (a wholly-owned subsidiary of A2A S.p.A.), the Lombardy Region announced with R.C.R. 1602 of December 18, 2023 the start of the tender procedure, defining the essential elements of the notice to be issued in the following 120 days.

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 unfavorable 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 December 31, 2023, the Group had cash resources equivalents totaling 1,629 million euro, as well as committed and unused credit lines totaling 1,930 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. As at December 31, 2023, 1,950 million euro was 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 Consolidated financial statements 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 Consolidated financial statements 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.

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.

The year 2023 saw 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 and restrictive monetary policies are being confirmed, even though we are witnessing, in the European markets, a constant reduction in energy commodity prices as a result of the effectiveness of policies to diversify natural gas supply sources. The global economy continues to be characterized by a climate of uncertainty, which affects both the volatility of commodity prices and supplies in general, and the timing of procurement of materials and equipment, with possible impacts on manufacturing activities and international trade.

For the years to come, the continuation of tensions related to a possible reduction in gas and oil supplies from countries that have replaced Russia as suppliers, as well as the persistent difficulties in shipping traffic with the potential exacerbation of tensions in the Red Sea, may adversely affect the recovery path of economies, with a particular impact 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 CO_2 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 2035. 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 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 power production, the continuity of drinking water distribution services provided by the Group, as well as sales of gas and heat for heating may be affected by unfavorable variations in the rainfall and temperature regime.

With reference to the hydroelectric sector, reductions in the availability of water resources may occur due to both a possible reduction in the total annual amount of rainfall and a change in its distribution throughout the year, possibly resulting in lower electricity production. Unfavorable winter rainfall patterns and rising temperatures can also impact the availability of high-altitude water resources. Reduced availability of water in hydroelectric can also lead to conflicts between various stakeholders as well as restrictions on the operation of plants.

With regard to the thermoelectric sector, in the event of rising summer temperatures of waterways, canals or the sea, plant operation may be restricted due to difficulties in adequately cooling the thermoelectric cycle.

With reference to the integrated water cycle, prolonged periods of drought can lead to shortages of water resources for drinking water use, resulting in possible interruptions to the drinking water distribution service in the municipalities served, particularly in mountainous municipalities whose supply sources are most affected by fluctuations in rainfall.

Sales of gas and heat for heating can be affected by particularly mild temperatures in the autumn and winter seasons.

All these factors can have an unfavorable 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 planning, both medium and short-term, of hydroelectric plants; production planning also makes use of the support of weather forecasts and the presence of expert people within the Group; 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;
- to guarantee the continuous supply of drinking water, even in the long term, the A2A Group monitors and maps losses from the water network and intervenes with investments to reduce them; the Group also has an investment program underway for the interconnection of aqueducts and the search for new sources of water supply also through the use of innovative technologies.

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. These policies are extended to all assets of the A2A Group.

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 injury, and has put in place mitigation measures, such as the choice of light-weight fabrics in tenders for the supply of clothing, and awareness-raising and information to its employees, including through the activation of an alert system in the event of expected sharp rises in temperature.

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 unfavorable impact on the Group.

Uncertainties in the prices of CO_2 emission allowances (EUA) may give rise to unfavorable or favorable impacts on the profitability of power plants.

The Group has reaffirmed its commitment to decarbonization also in the 2024-2035 Plan, confirming its emission factor reduction target to 226 gCO_2/kWh by 2030 and a further 65% reduction compared to the 2017 value, corresponding to a 60% decrease in absolute emissions compared to 2022. Not only that: with the 2024-2035 Plan, the Group also committed to the decarbonization of its value chain over the Plan horizon, setting a target on the reduction of emissions from the supply chain by 30% compared to 2022 and one on gas sold to its customers by 20% to 2035 compared to 2023.

The achievement of decarbonization targets is subject to the following main sources of uncertainty:

- possible geopolitical, market or climatic situations that could lead to an increase in the demand for energy from fossil sources, either to meet a possible higher domestic demand for energy or to compensate for any lower production from renewable sources (hydroelectric) and/or any lower imports;
- insufficient technological development, which may not adequately support the replacement of fossil production and/or the removal of carbon ("carbon removal") from processes that are inherently "carbon intensive" (hard-to-abate).

To mitigate these uncertainties, the Group analyzes and evaluates possible investment initiatives in line with the planned decarbonization pathway and carries out experiments and investments in carbon capture.

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 labor 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.

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.

The increase in threats to the security of the IT infrastructure, due on the one hand, to the increasingly pervasive use of personal tools following the remoteness of work and on the other, to the increase in the probability of cyber attacks, including "state sponsored" ones, as well as forms of increasingly sophisticated cyber crime, represent 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, specific training activities and tests to increase employee awareness (e.g. phishing e-mail simulations), 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 this regard, it is noted that a unified IT/OT treatment program has been defined and agreed upon among the organizational structures in charge of risk management, which monitors ongoing activities together with the mitigation initiatives identified during the year 2023 and which will be implemented in the coming years: thus, the Group's roadmap on cyber resilience has been organically divided into different sites, which in turn accommodate numerous initiatives per area of intervention.

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 center 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 de-obsolescence 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 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 presence of the Disaster Recovery Plan mentioned above, the companies A2A S.p.A., Unareti S.p.A. and LD Reti S.r.l. obtained the ISO 22301 (Business Continuity Management) certification. In the coming years, the certification scope will be extended to other Group subsidiaries.

Lastly, there is growing attention to the possible impacts arising from the application of generative artificial intelligence systems on the businesses operated by the Group; by 2024, the AI Act is expected to be issued, an initial regulation of the matter at European Union level which, starting from 2026 in all European nations, will impose a series of obligations and constraints on companies and institutions that make use of artificial intelligence in their information systems, in accordance with the degree of risk estimated: the A2A Group has already carried out an initial recognition and mapping activity of AI applications by risk class and, in addition, the first mitigating actions have been planned and started, both of an organizational and procedural nature, aimed at the Group's full compliance with the entire regulatory framework.

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 the 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 areas.

For some Group companies, certification according to the SA8000 Standard has been obtained, which allows the organization to correctly manage and constantly monitor all activities and processes relating to workers' conditions (human rights, development, valorization, training and professional growth of people, health and safety of workers, non-discrimination, employment of minors and young people), with the requirements also extended to suppliers and subcontractors.

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.

8

Other information

8.1

Other information

Audit of the financial statements and disclosures pursuant to article 149-duodecies of the Consob Issuers' Regulations

The annual financial statements of A2A S.p.A. have been subject to a full audit by EY S.p.A. on the basis of their appointment for financial years 2016 to 2024 by the general shareholders' meeting.

The following table provides a summary of the fees paid for audit work performed within the Group during 2023, analyzed between the leading auditor EY S.p.A. and other auditors.

Description thousands of euro	Leading Auditor	Other auditors
A2A S.p.A.		
Audit of annual financial statements	197	
Audit of consolidated financial statements	45	
Periodic tests of accounting	24	
Review of half-yearly report	89	
Audit of the separate annual accounts for ARERA	21	
Total	**376**	**-**
Subsidiaries		
Audit of annual financial statements	1,435	-
Periodic tests of accounting	280	
Review of half-yearly report	231	
Audit of the separate annual accounts for ARERA	106	
Other consolidated groups (Acinque, AEB)	435	
Total	**2,487**	**-**
Associates and joint ventures		
Audit of the information sent to shareholders for the consolidation	52	
Total	**52**	**-**
Total A2A Group	**2,915**	**-**

In addition to the above audit work, companies belonging to the EY network also performed other engagements in 2023 for fees amounting in total to 221 thousand euro, which mainly related to activities as the Company's legal auditor as specified by current legislation.

Treasury shares

"Treasury shares" had no value at December 31, 2023.

Secondary locations

The company does not have secondary offices.

Related parties and tax consolidation

Details of related party transactions are provided in note 37 to the consolidated financial statements and note 35 to the separate financial statements.

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The information on corporate governance and ownership structures required by article 123-bis of Legislative Decree no. 58/1998, as amended, is contained in a separate document “Report on Corporate Governance and Ownership Structures for the year ended December 31, 2023”, which forms an integral part of the financial statements documentation.

In compliance with the requirements of the “Regulation on provisions relating to related party transactions” adopted by Consob with Resolution no. 17221 of March 12, 2010 and subsequently amended by Resolution no. 17389 of June 23, 2010, by way of a resolution of November 11, 2010 the Management Board approved, following the favorable opinion of the Internal Control Committee, the prescribed procedure for identifying the rules and controls designed to ensure the transparency and substantial and procedural correctness of the related party transactions carried out by A2A S.p.A. directly or through its subsidiaries. The aforementioned Procedure was applied effective January 1, 2011 and subsequently amended on August 1, 2012, November 7 and December 18, 2013 and June 22, 2015.

Following a periodic review, the Procedure was subsequently amended/supplemented and approved by the Board of Directors on June 20, 2016, subject to the favorable opinion of the Audit and Risks Committee and then updated on June 22, 2017, in view of Consob Resolution no. 19925 of March 22, 2017 and on December 16, 2019, in view of the amendments to art. 192-quinquies of Legislative Decree no. 58 of February 24, 1998 (“TUF”) (art. 4 of Legislative Decree no. 49 of May 10, 2019).

Lastly, by 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 Procedure was amended - effective as of July 1, 2021 - to comply with the Related Parties Regulation, as amended by Consob Resolution no. 21624 of December 10, 2020, in implementation of the so-called “Shareholders’ Rights II” Directive. The aforementioned Procedure can be found on www.gruppoa2a.it.

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.