a2a
LIFE COMPANY

2021

Report on Operation

Report on Operations

2021

these Financial Statements are available at the website
www.a2a.eu

Contents

This is a translation of the Italian original “Relazione sulla Gestione 2021” 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 www.a2a.eu.

Letter to Shareholders and Stakeholders 2021

Shareholders, Stakeholders,

The year 2021 was characterized by repeated pandemic waves that, however, thanks to an extensive and effective vaccination campaign, did not prevent the return to a situation of almost normality. In a context of economic recovery and turbulence in the commodities market, A2A created value for all its stakeholders and confirmed its capacity for industrial and economic growth, as witnessed by the excellent results achieved in terms of operating margins, the record number of investments made during the year and the strengthening of its presence in Italy.

The activities carried out during 2021 fully fit into the two growth pillars outlined in the recently updated 2021-2030 Strategic Plan: circular economy and energy transition. In fact, 2021 saw us engaged in important agreements and acquisitions related to the bioenergy field (acquisition of Agripower, a company managing and developing biogas power generation plants), industrial waste treatment (acquisition of TecnoA, leading company in central-southern Italy in this sector) and the increase in installed power from renewable sources (acquisition of 17 photovoltaic plants from Octopus for installed capacity of 173 MW).
These developments have been accompanied by major investments to increase the resilience of the electricity grid and make it more reliable even in the event of extreme weather events and to contribute to the increasing electrification of consumption. A strong push was also given to investments aimed at recovering energy and materials, upgrading the water and sewage networks and digitalizing the Group. In total, acquisitions and new investments amounted to around 1.8 billion euro, around double the amount budgeted for 2020.

The economic results for 2021 were satisfactory and up compared to both 2020 and 2019, a year characterized by the absence of the effects of the Pandemic: EBITDA stood at 1,428 million euro (+19% compared to 2020), thanks to both solid industrial growth of the Business Units and the contribution of new acquisitions, and Net Income reached 504 million euro (+38% compared to the previous year).

The economic-financial performance is solid: the Consolidated Net Financial Position at December 31, 2021 amounted to 4,113 million euro (3,472 million euro as at December 31, 2020). Excluding changes in scope that took place throughout 2021, NFP came to 3,366 million euro, recording cash generation of 106 million euro, after total investments for 1,074 million euro and dividends for 248 million euro.

The international tensions of these days have re-proposed the need for the country to obtain strategic assets to enable us to better defend ourselves from market turbulence and the consequent increase in the cost of energy, to the benefit of all citizens. A2A, in continuing along the path outlined in the 2021-2030 Strategic Plan updated in January 2022, proves to be a necessary player in these processes of national transformation, developing infrastructures that can contribute to making our country energy independent and achieving the sustainability objectives set by Europe.

2021 was the year in which the Group accelerated on sustainable finance: in May 2021, we adopted a new Sustainable Finance Framework which, for the first time in Italy, combines two different approaches - Green/Use of Proceeds and KPI-Linked - and we issued financial instruments thanks to which the A2A sustainable debt quota reached 44% of total debt. We have improved our positioning in all sustainability rankings and have been included in the new MIB ESG Index launched by Euronext and Borsa Italiana.

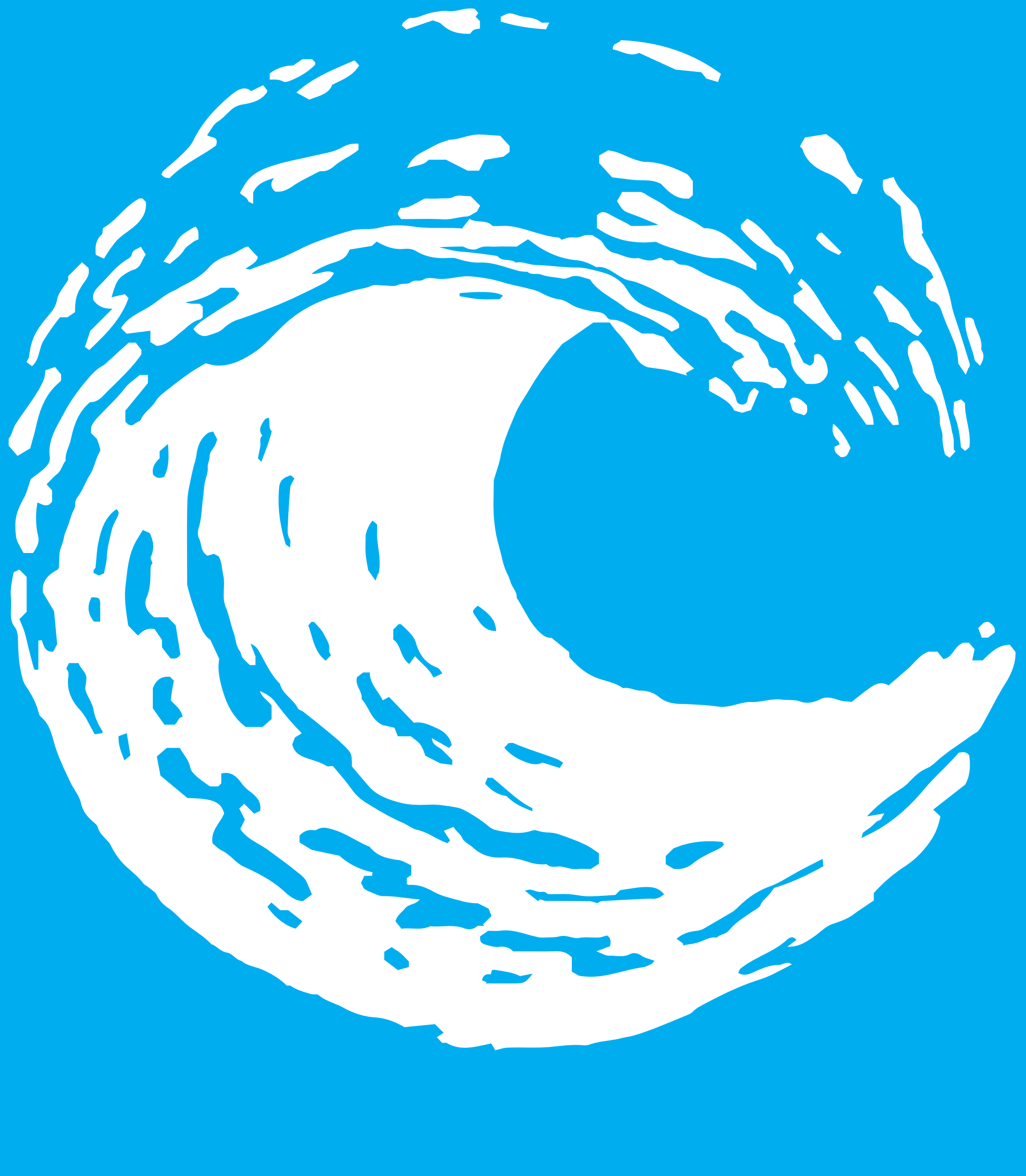
On environmental performance, 2021 was characterized by a recovery in energy demand compared to 2020 and by a particular situation in the European electricity market, which saw prolonged shutdowns for maintenance of nuclear plants in France, with the consequent demand for more production by the Italian thermoelectric sector. This has led to an increase in the Group's direct emissions and CO_2 emission factor to 330 g/kWh (up 6% from 2020 but down 22% when compared to 2017, the Science Based Target year). The average rate of separate waste collection remains constant at 71% for all the territories served, as does the rate of urban waste recovered: of this only 0.5% ends up in disposal or, marginally, in landfills.

In 2021, we strengthened the digital transformation process by leveraging smart working that involved more than 5,000 thousand people and created a digital identity for more than 4,000 resources in operating departments.
We have continued to support the communities in which we operate not only with initiatives, which in 2021, amounted to about 6 million euro, but also by involving about 44 thousand students and teachers in environmental education initiatives. Lastly, our role as a Life Company has also taken concrete form in our relations with customers: 5 TWh of green energy have been sold (an increase of 29% compared to 2020) and A2A Energia has acquired 49% of the capital of a company specializing in the provision of installation and maintenance services for energy efficiency, distributed generation and electric mobility products for the consumer segment.

The results reported are the outcome of concrete actions and joint efforts which make sense because they are guided by a single common awareness: the identity of A2A as a Life Company.
Closeness to people and knowledge of the local area, commitment to guaranteeing essential services, long-term sustainability, transparency and innovation are the founding values of A2A, which frame and support the company's strategy aimed at the objectives of circular economy and energy transition.

Chairman of the
Board of Directors
Marco Patuano

General Manager
Renato Mazzoncini



Corporate Boards

Board of Directors

CHAIRMAN
Marco Emilio Angelo Patuano

DEPUTY CHAIRMAN
Giovanni Comboni

CEO AND GENERAL MANAGER
Renato Mazzoncini

DIRECTORS
Stefania Bariatti
Vincenzo Cariello
Federico Maurizio d'Andrea
Luigi De Paoli
Gaudiana Giusti
Fabio Lavini
Christine Perrotti
Secondina Giulia Ravera
Maria Grazia Speranza

Board of Statutory Auditors

CHAIRMAN
Giacinto Gaetano Sarubbi

STANDING AUDITORS
Maurizio Leonardo Lombardi
Chiara Segala

ALTERNATE AUDITORS
Antonio Passantino
Patrizia Tettamanzi

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.

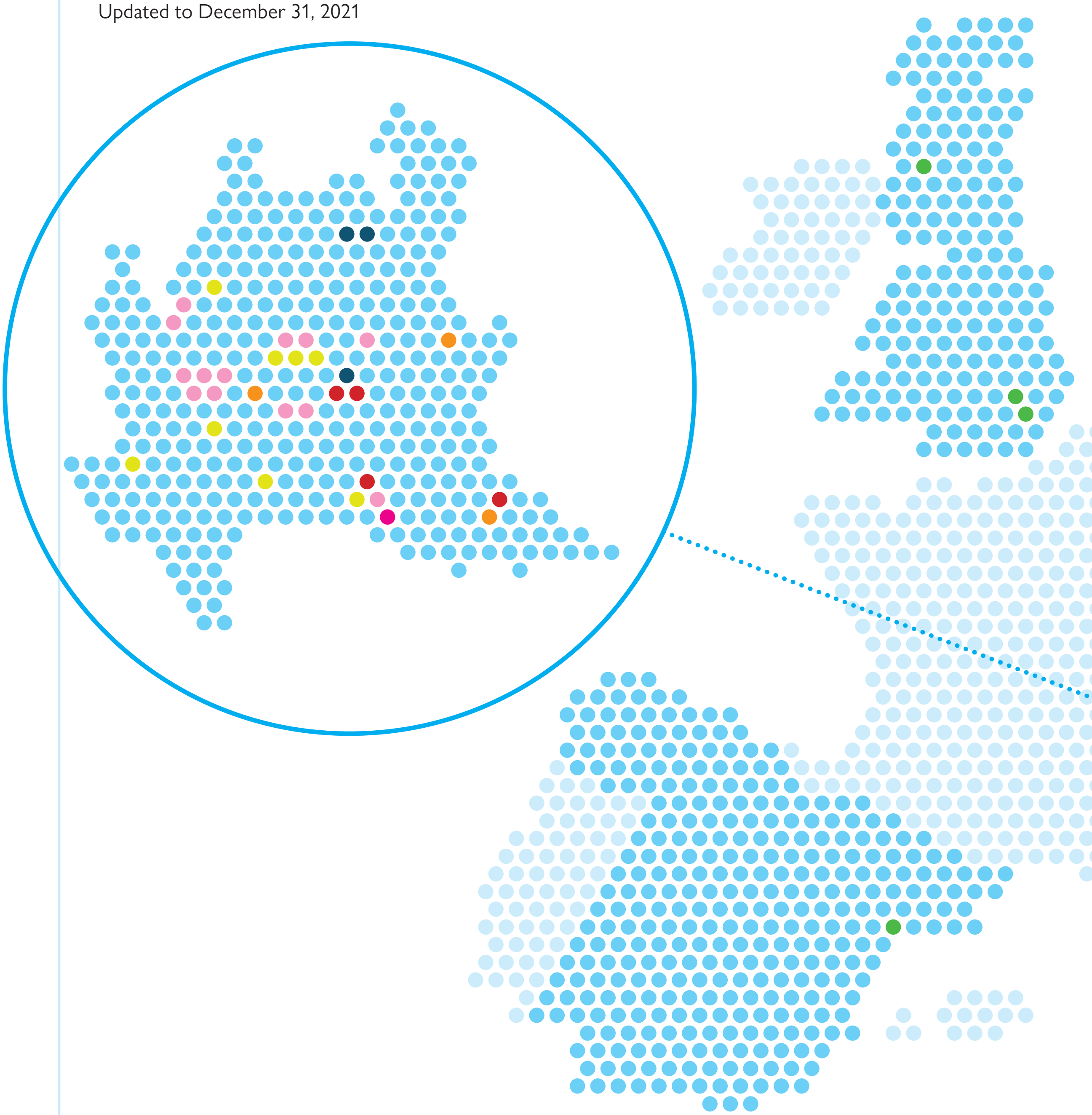
* The Networks Business Unit has changed its name to the Smart Infrastructures Business Unit, as per the Business Plan of January 28, 2022.

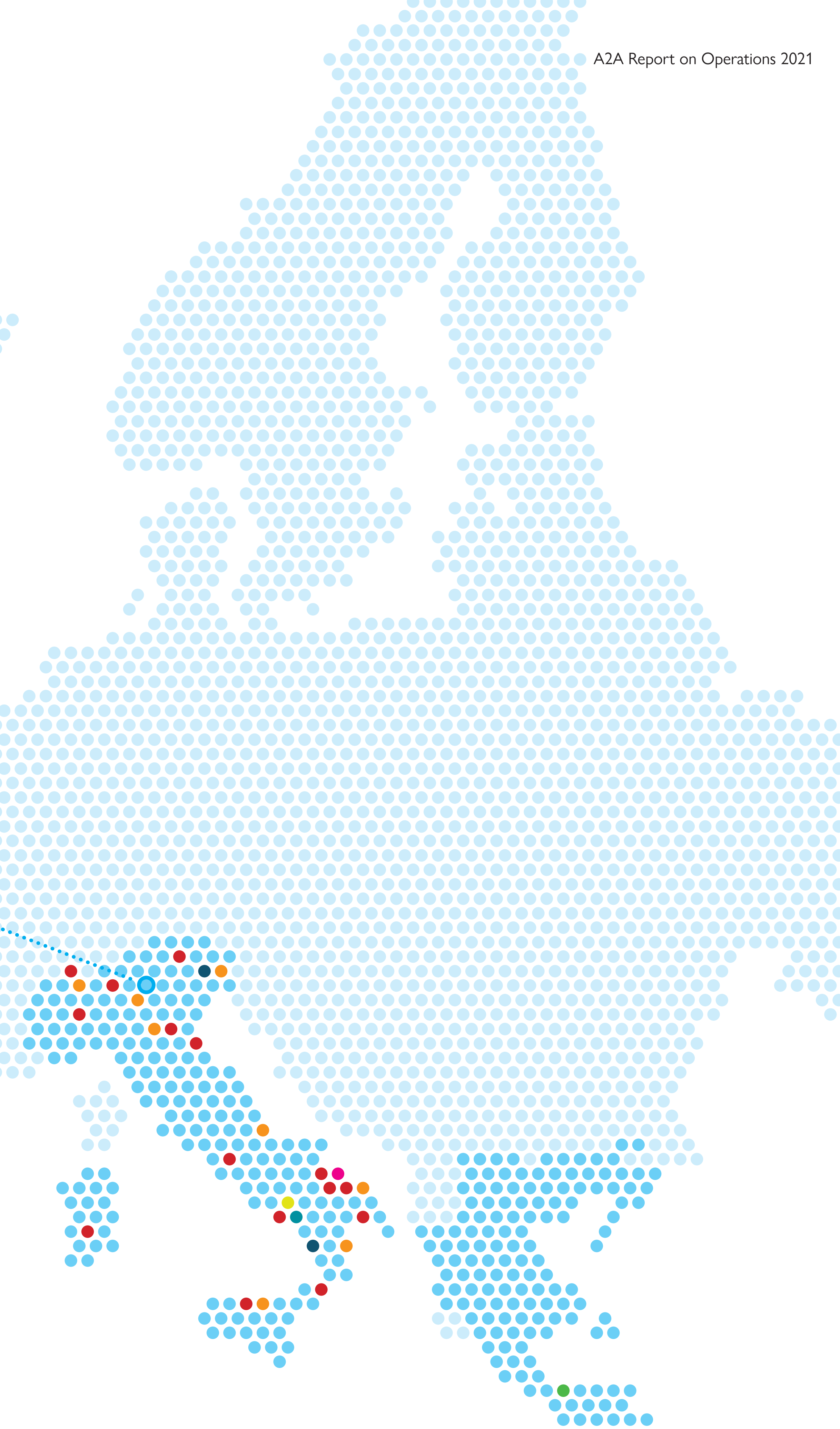

Ecological Transition

1.2 Geographical areas of activity

- Hydroelectric plants
- Thermoelectric plants
- Cogeneration plants
- Biomass plants
- Photovoltaic plants
- Wind plants
- Waste treatment plants
- Technological partnerships

Updated to December 31, 2021





1.3 Group structure

a2a LIFE COMPANY

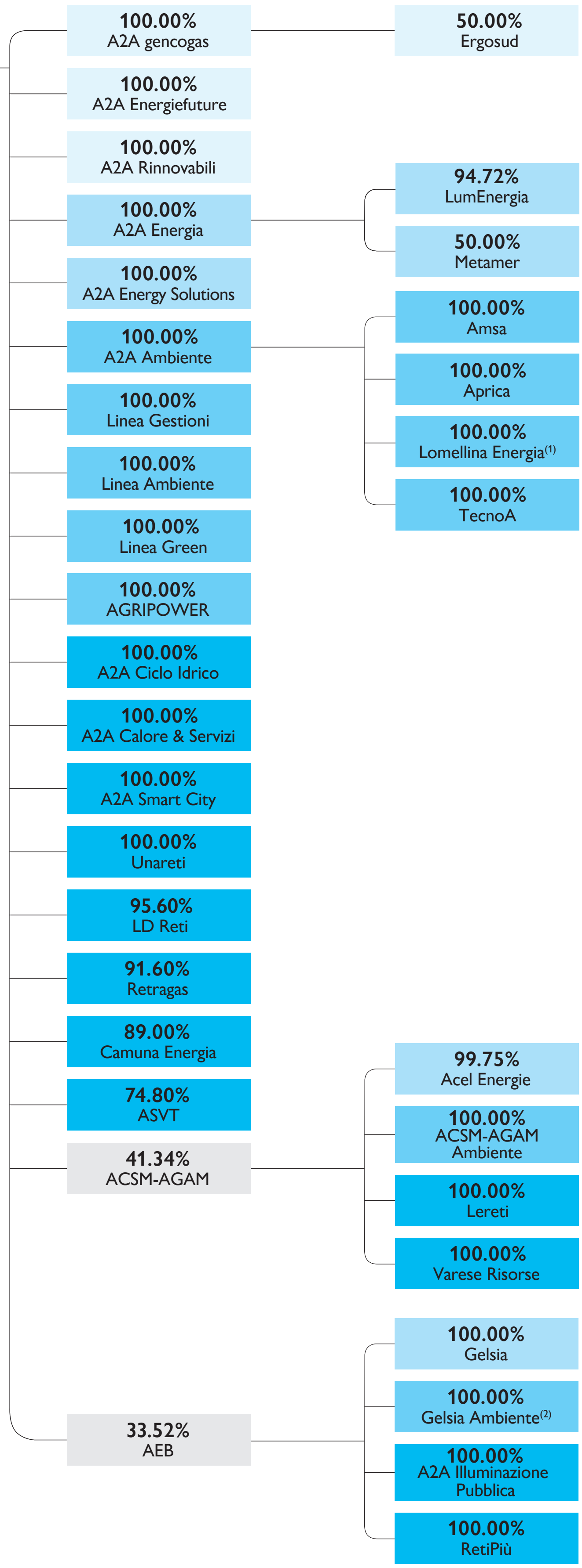
Generation and Trading

Market

Waste

Smart Infrastructures*

Other Companies



This chart shows the most significant shareholdings of the A2A Group. Reference is made to annexes 3, 4 and 5 of the file of the Consolidated Financial Statements for a complete detail of shareholdings.

1 35.70% held through Linea Ambiente S.r.l..

2 30% held through A2A Integrambiente S.r.l..

* The Networks Business Unit has changed its name to the Smart Infrastructures Business Unit, as per the Business Plan of January 28, 2022.

1.4 Financial highlights at December 31, 2021 (**)

11,549
mln €
REVENUES

1,428
mln €
GROSS OPERATING INCOME

504
mln €
RESULT OF THE YEAR

0.0904
€ per share
DIVIDEND

Income statement figures

millions of euro	01 01 2021 12 31 2021	01 01 2020 12 31 2020 Restated
Revenues	11,549	6,848
Operating expenses	(9,400)	(4,945)
Labour costs	(721)	(703)
Gross operating income - EBITDA	**1,428**	**1,200**
Depreciation, amortization, provisions and write-downs	(768)	(646)
Net operating income - EBIT	**660**	**554**
Result from non-recurring transactions	-	-
Financial balance	(70)	(81)
Result before taxes	**590**	**473**
Income taxes	(36)	(99)
Net result from discontinued operations	(4)	(6)
Minorities	(46)	(4)
Group result of the year	**504**	**364**
Gross operating income/Revenues	**12.4%**	**17.5%**

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

Balance sheet figures

millions of euro	12 31 2021	12 31 2020
Net capital employed	8,416	7,588
Equity attributable to the Group and minorities	4,303	4,116
Consolidated net financial position	(4,113)	(3,472)
Consolidated net financial position/Equity attributable to the Group and minorities	0.96	0.84
Consolidated net financial position/EBITDA	2.9	2.9

Financial data

millions of euro	01 01 2021 12 31 2021	01 01 2020 12 31 2020
Net cash flows from operating activities	1,135	597
Net cash used in investing activities	(1,595)	(802)
Free cash flow (Cash Flow Statement figure)	(460)	(205)

Energy scenario

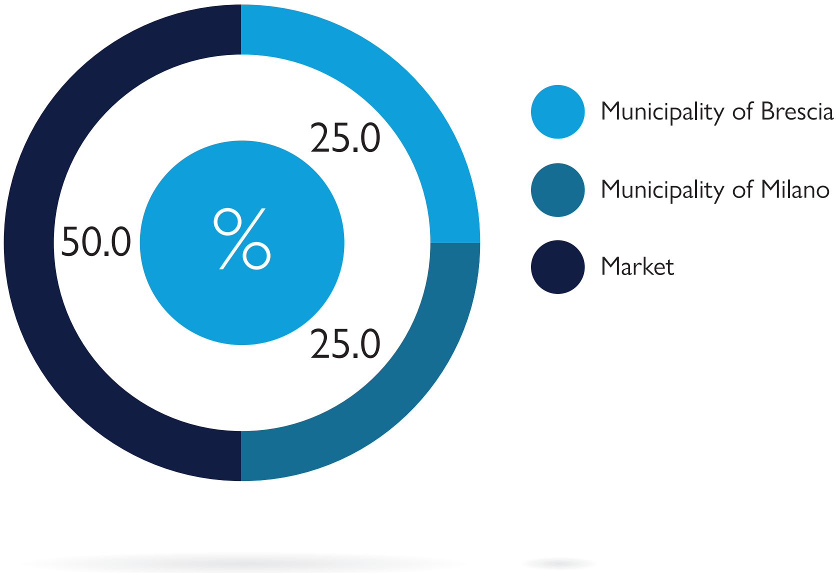
	12 31 2021	12 31 2020
Average of the PUN (Single Nationwide Price) Base load (Euro/MWh)	125.0	38.9
Average of the PUN (Single Nationwide Price) Peak load (Euro/MWh)	139.8	44.6
Average price of gas to the PSV (*) (Euro/MWh)	45.8	10.4
Average price of emission certificates EU ETS (**) (Euro/tonne)	53.4	24.8

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

Group's key operational indicators

	12 31 2021	12 31 2020
Generation and Trading		
Thermoelectric production (GWh)	14,078	12,233
Hydroelectric production (GWh)	4,231	4,408
Electricity sold to wholesale customers (GWh)	14,043	14,116
Electricity sold on the Power Exchange (GWh)	18,909	15,306
Market		
Electricity sold to retail customers (GWh)	18,426	15,012
POD Electricity (#/1000)	1,383	1,270
of which POD Electricity Free Market	*938*	*823*
Gas sold to retail customers (Mcm)	2,711	2,365
PDR Gas (#/1000)	1,573	1,614
of which PDR Gas Free Market	*935*	*868*
Waste		
Waste collected (Kton)	1,893	1,660
Residents served (#/1000)	4,065	4,117
Waste disposed of (Kton)	3,423	3,348
Electricity sold by waste-to-energy (GWh)	2,082	1,954
Smart Infrastructures		
Electricity distributed (GWh)	11,423	10,673
Gas distributed (Mcm)	3,448	2,996
Water distributed (Mcm)	76	77
RAB Electricity (M€)	753	692
RAB Gas (M€)	1,578	1,538
RAB Water (M€)	411	379
Heat sales (GWht)	3,178	2,836
Cogeneration production (GWh)	297	298

1.5 Shareholdings (*)



(*) Source CONSOB for stakes higher than 3% (update at December 31, 2021).

Key figures of A2A S.p.A.

	12 31 2021	12 31 2020
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)	-	23,721,421

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

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

Market capitalisation at December 30, 2021 (millions of euro)	5,389
Share capital at December 30, 2021 (shares)	3,132,905,277

	2021
Average market cap (millions of euro)	5,259
Average daily volumes (shares)	10,371,909
Average price (€/share)	1.68
Maximum price (€/share)	1.95
Minimum price (€/share)	1.31

Source: Bloomberg

A2A stock is also traded on the following platforms: Aquis, BlockMatch, CBOE, Chi-X, ITG Posit, Tradegate, Turquoise, UBS MTF.

On May 26, 2021 A2A distributed a dividend equal to 0.08 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

Ethical Indices

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

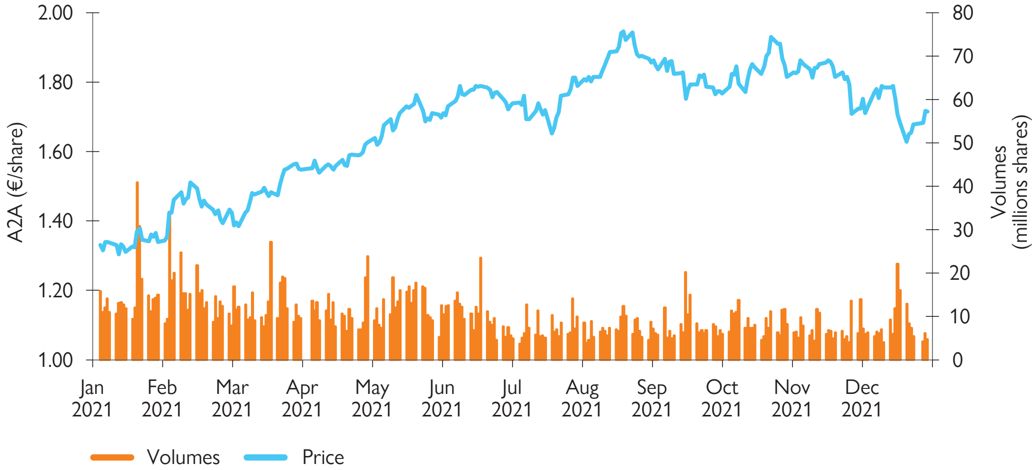
Source: Bloomberg and company information

In 2021 A2A obtained the following ESG ratings:

Assessment	Rating
MSCI	BBB
CDP Climate Change	A-
CDP Water	B-
Refinitiv	A-
Standard Ethics	EE
Vigeo	63/100
Sustainalytics	21/40

Moreover, A2A has been included in the Ethibel Excellence Investment Register, in the Ethibel Pioneer Investment Register and in the CDP Supplier Engagement Leaderboard.

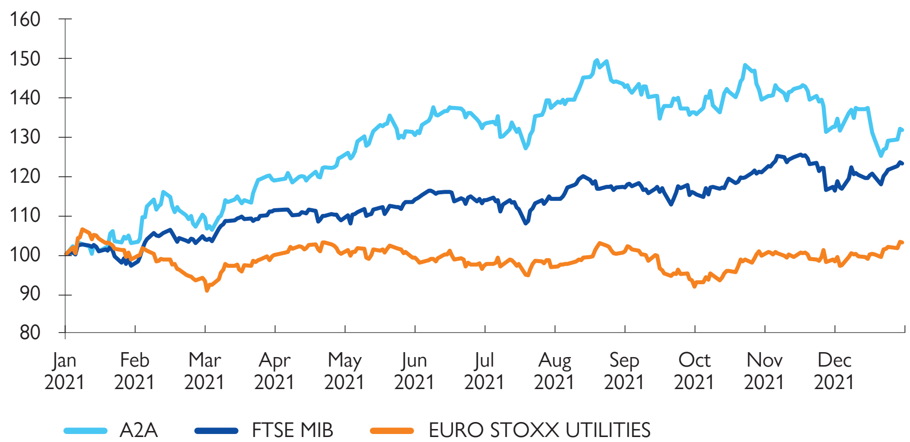
A2A: price and volumes



A2A vs FTSE MIB and EURO STOXX UTILITIES

(Price December 30, 2020 = 100)

Historical volatility in 2021
A2A: 21.7%
FTSE MIB: 15.6%



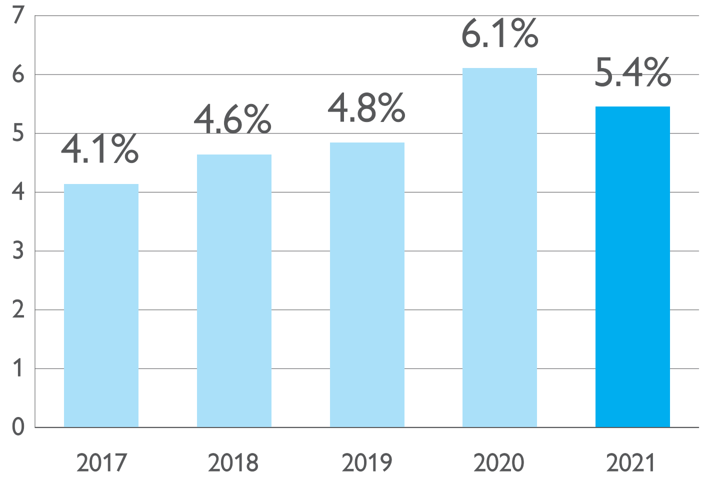
Source: Bloomberg

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

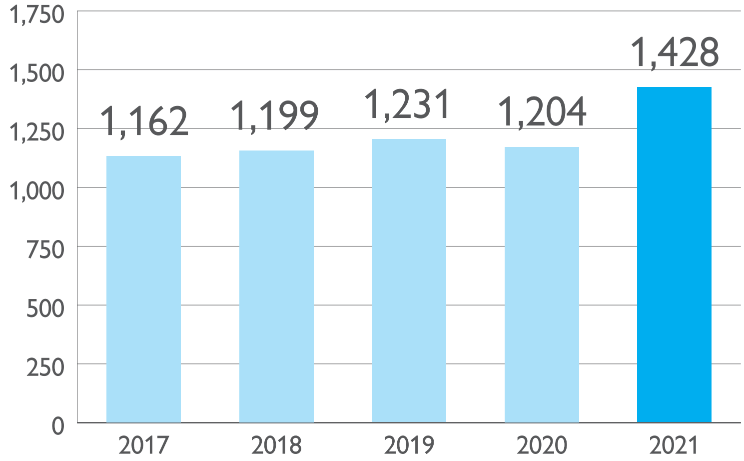
Source: Rating agencies

Dividend/average share price for the year (dividend yield)

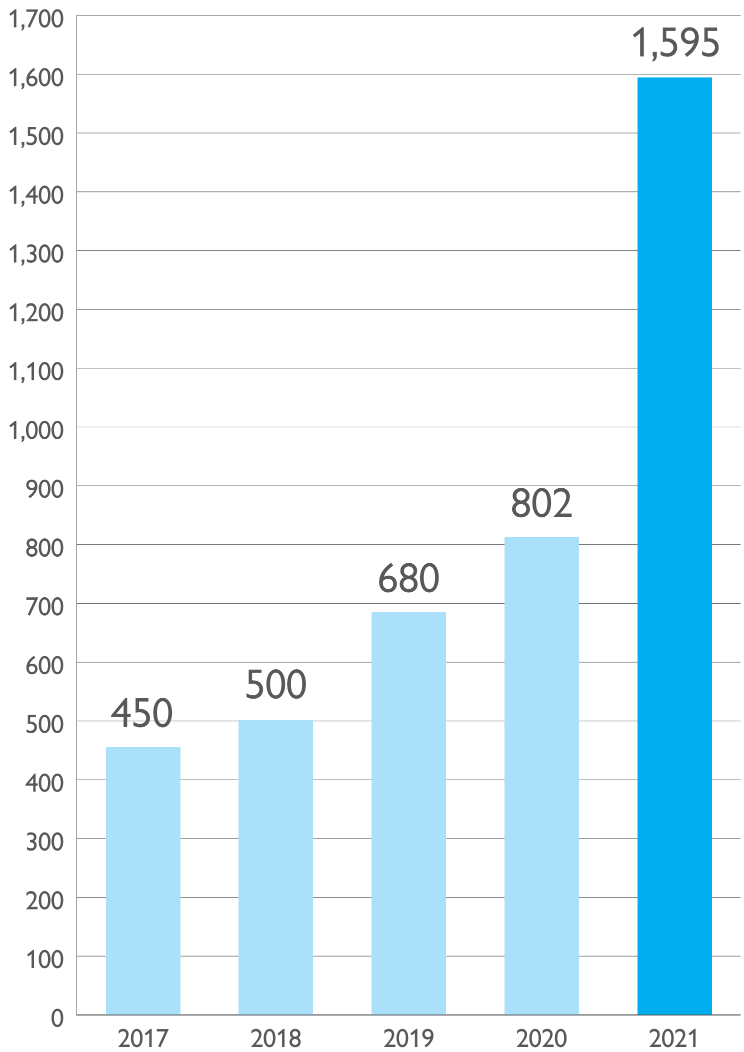


1.7 Alternative Performance Indicators (APM)

Gross Operating Income
millions of euro

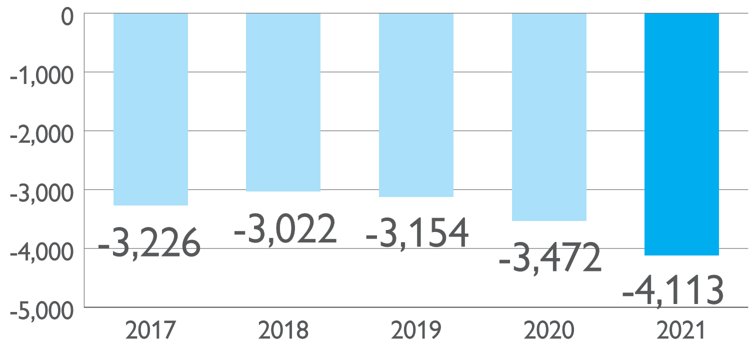


Net Investments
millions of euro

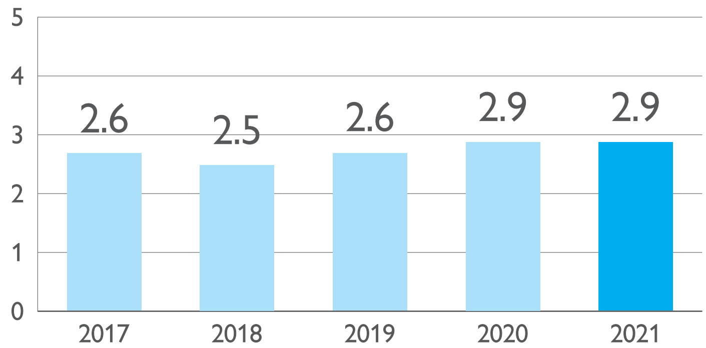


Net Financial Position

millions of euro

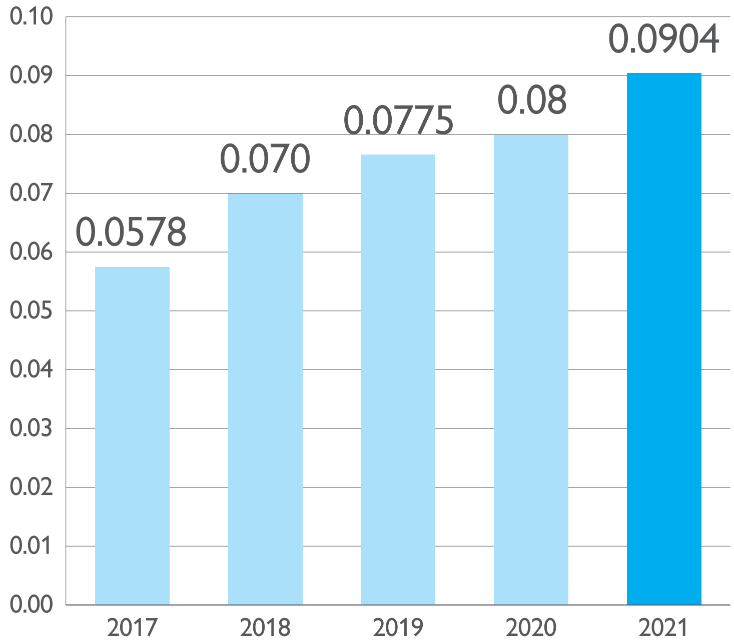


Net Financial Position/EBITDA



Dividend

euro per share



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, 2020.
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 July 15, 2020, ESMA also published a new version of its Guidelines on disclosure requirements pursuant to the prospectus regulation (ESMA/31-62-1426), 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 assets

Net fixed assets 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

Net Working capital is determined as the algebraic sum of:
- inventories;
- trade receivables and other current assets;
- trade payables and 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); it 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 leases 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 net financial position of the A2A Group is calculated in accordance with Consob communication no. DEM/6064293 of July 28, 2006 and in accordance with Recommendation ESMA/2013/319.

Investments 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.

2
Sustainability responsible management

2.1 Sustainability responsible management

In 2021, sustainability - in addition to remaining at the center of international policies and of common feeling as a crucial factor for a "happy" growth, made of respect for the environment, social equality and inclusive development, which leaves no one behind - represented the only possible answer to satisfy the desire and the need to return to a more or less "normal" life, without dispersing the good things that the emergency phase of the COVID-19 pandemic taught us. The European Union, for its part, with the Long-Term Budget and the Next Generation EU - the largest package of stimulus measures it has ever financed - has made available to member countries over 2,000 billion euro[1] to repair the damage caused by the COVID-19 pandemic, over 800[2] of these (the Next Generation EU) have been allocated to make Europe green - translated in the language of the Life Company, blue - digital and resilient, in the full knowledge that sustainable development is now the only possible model.

A2A's new Strategic Plan, presented on January 20, 2021, has fully embraced the EU's ambitions, making them its own. A long-term plan - to 2030 - which envisages development based on two crucial elements for everyone's future: the energy transition, or rather the production and use of clean energy, accelerating decarbonization and encouraging the electrification of consumption; and the circular economy. For A2A, this means generating new resources in the form of matter and energy, reducing waste to protect the environment and preserve the Planet's resources.
This Plan represents our "decade of action", an ambitious plan characterized by 90% investment in line with the objectives of the UN's 2030 Agenda, with the aim of making a concrete contribution to the country's sustainable development.

On April 29, 2021, the fifth Group Integrated Report was presented to the A2A Shareholders' Meeting, which for the fourth year, is also the Non-Financial Statement pursuant to Legislative Decree 254/16. This document continues to be drawn up according to rigorous and internationally shared standards and methodologies, in particular the Integrated Reporting Framework (IR Framework) and the international standards of the Global Reporting Initiative (GRI). In this edition, in line with the new Strategy, a new and challenging long-term Sustainability Plan - 2021-2030 - was published, which, in addition to incorporating the sustainability objectives contained in the new Strategic Plan, includes more specific objectives linked to its "enabling levers", i.e.: Digital, People and Governance. In addition, for the first time 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. The alignment has also been positively evaluated by the CDSB (Climate Disclosure Standard Board) - the international organization that brings together leading business and environmental organizations and works to promote the integration of TCFD disclosure within corporate reporting.

Thanks to the new long-term strategy and A2A's continuous effort to align its reporting to the highest international standards, in the early months of 2021, Standard Ethics confirmed its positive rating of EE (Strong) in the short term for the third year running and confirmed its medium-term rating of EE+ (Very Strong). In addition, in March, A2A's outlook was raised from "Stable" to "Positive". The company has been confirmed in the six ethical indices in which it is included (FTSE4Good Index, ECPI Indices, Ethibel Sustainability Index Excellence Europe, EURO STOXX Sustainability Index, Euronext Vigeo Index, Eurozone 120, Standard Ethics Italian Index). A2A also underwent the CDP (formerly the Carbon Disclosure Project) assessment this year, which confirmed its "A-" rating in Climate Change, placing A2A in a leadership band, compared with a sector average of "B". In October, A2A was included in the new MIB ESG index launched by Euronext and Borsa Italiana, the first dedicated to blue-chip listed companies in Italy. It aims to identify best practices at ESG (Environmental, Social, and Governance) level. Finally, in the early months of the year, it was also included for the first time in Bloomberg's Gender Equality Index.

These confirmations are due to both the A2A Group's new emissions policy, which has made the decarbonisation targets even more ambitious, aligning them with the Paris Climate Agreement of 2015, and to the attention given by the Group to other fundamental issues such as Diversity. Furthermore, in 2021, the Group approved and adopted three new policies: the Policy on Human Rights, which defines the set of ethical principles, values and rules of conduct that must inspire the activities of all those who operate, internally or externally, in the sphere of action of the Group; the Policy on Responsible

1 This amount is expressed in current prices. Equivalent to 1,800 billion euro in 2018 prices. Source https://ec.europa.eu/info/strategy/recovery-plan-europe_it
2 This amount is expressed in current prices. Equivalent to 750 billion euro in 2018 prices. Source https://ec.europa.eu/info/strategy/recovery-plan-europe_it

Procurement, which reaffirms the Group's commitment to promoting and supporting all the values and principles affirmed by international institutions and conventions on the subject of sustainability throughout the supply chain (from the adoption of supplier selection policies, to the use of fair and transparent processes that provide for the integration of sustainability criteria, to the promotion of social and environmental responsibility practices among suppliers); the Policy on Stakeholder Engagement, which defines the guidelines through which A2A involves its stakeholders.

The year 2021 then saw A2A accelerate the development of Sustainable Finance products. In May 2021, the new Sustainable Finance Framework was published. It is a set of guidelines to reinforce the link between the Group's financial and sustainable strategy.

With this update - compared to the previous 2019 Green Financing Framework - A2A is among the first issuers of the sector, and the first in Italy, to adopt a Framework that combines two approaches: the Green Use of Proceeds, which allows maximum transparency about the use of proceeds for specific projects, and the new Sustainability-Linked component, which allows a comprehensive reading of the Group's strategy.

A set of Key Performance Indicators (KPIs) has in fact been identified and included in the Framework. It reflects the two pillars of A2A's strategic plan, energy transition and the circular economy, and confirms the Group's commitment to the achievement of the Sustainable Development Goals of the UN 2030 Agenda. Selected KPIs:
- Scope 1 CO_2 emission factor
- increased installed capacity from renewable sources
- treated waste intended for material recovery

in fact concern ESG targets that contribute to the achievement of UN SDGs 7, 11, 12 and 13.

The Sustainable Finance Framework, which covers any type of financial instrument, has been prepared in compliance with the Green Bond Principles (2018) 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 (2019) published by the Loan Market Association (LMA).

Vigeo Eiris, 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.

As part of the new Sustainable Finance Framework, three important funding transactions were concluded for the Group:
- a Sustainability-Linked credit line linked to the achievement of two sustainable targets (installed capacity and material recovery) and with a mechanism for donating the savings (or higher cost) to the non-profit organisation Banco dell'Energia Onlus,
- the first Sustainability-Linked Bond, related to the achievement of the Scope 1 CO_2 emission factor target in 2025, consistent with the Science Base Target commitment approved in March 2020; and
- a new Green Bond the net proceeds of which will go to finance strategic circular economy and energy transition projects aligned with the European Taxonomy (in particular the "climate change mitigation" objective).

The Sustainable Finance Framework was updated in February 2022 (with Second Party Opinion issued by Vigeo Eris), aligning with 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).

Following the update of the Framework, the second Sustainability-Linked Bond, linked to achievement of the target for installed capacity from renewable sources, was placed on the market. A2A, in line with the update of the Group's Strategic Plan presented in January 2022, aims to reach a share of 3.0 GWh or more by 2024. This important goal also contributes to the achievement of UN SDGs 7 and 13.

As far as territorial sustainability is concerned, 2021 was characterized by a renewed approach for A2A. A new way of sharing the story of the Group's commitment in its territories has been defined, based on three key words: People (social sustainability), Planet (environmental sustainability), Prosperity (economic sustainability). Areas identified by the World Economic Forum with the document "Towards Common metrics and consistent Reporting of Sustainable Value Creation". However, that is not all. The opportunity was also taken to renew the events for the presentation of the territorial budgets, transformed into meetings - digi/phygital - structured in two distinct moments: the first of dialogue with local stakeholders (forumAscolto), i.e. a moment of discussion on 10 topics dedicated to ecological transition. The so-called

10 “right turns” to be implemented locally, identifying the enabling levers most suitable for supporting change; the second is a presentation - open to the public - in which A2A’s top management illustrated the Territorial Sustainability Report, A2A’s new Strategic Plan and the results of the forumAscolto. This new cycle of meetings opened on June 22 with Friuli Venezia Giulia and continued with meetings dedicated to Piedmont, Valtellina and Valchiavenna, Bergamo, Brescia and Milan, followed by a final workshop held on October 6 in the Lombard capital, during which the results of the territorial forums were compared and commented on by experts of international standing, starting with the American economist Jeffrey Sachs, Director of the Center for Sustainability Development at Columbia University. The Reports and results of the forumAscolto are published, from time to time, in the dedicated section of the Group’s website “A2A for its territories”.

As part of the stakeholder listening program, the activity continued with a path of listening and involvement that concerned the Sicilian territory, the forumAscolto Sicilia, created to make people understand the strategic value of the project for reconversion of the power plant of San Filippo del Mela (ME) as an energy hub for the sustainable transition of the Sicily Region. The initiative, which was held on July 13, 2021, was preceded by activities of analysis and listening to stakeholders to understand the perception and expectations of the territory towards the conversion project. The results of this first phase were analyzed in the study, prepared by The European House - Ambrosetti, which supported A2A in this process, “The redevelopment of the San Filippo del Mela Center as a lever for the sustainable transition of Sicily”, focused on the economic, social and environmental implications deriving from the reconversion projects planned for the San Filippo del Mela site. During the forumAscolto, some local stakeholders also contributed to the discussion, offering their point of view to enrich the moment of comparison as much as possible, and the two projects were presented, selected as part of the Challenge for Sicily, the initiative launched by A2A in June 2021 to identify innovative ideas capable of favouring the sustainable evolution of the territory and, potentially, finding application in the Group’s activities and in the relative supply chains.

The issue of stakeholder inclusion and engagement is increasingly central to supporting various business processes: updating materiality analysis, drafting non-financial statements, assessing performance, identifying ESG trends, supporting sustainability planning and sustainable governance, and managing risk and reputation. In mid-2021, a new Stakeholder Management process was launched, aimed at managing stakeholder relations in a more continuous and integrated manner across the different areas of the Group. The objectives were to: update stakeholder mapping by transforming it into a tool to easily identify the most influential categories that require the most care, develop an Annual Engagement Plan in line with the goals of the Strategic Plan, and map engagement activities, verifying their correspondence to corporate objectives and stakeholder interests.

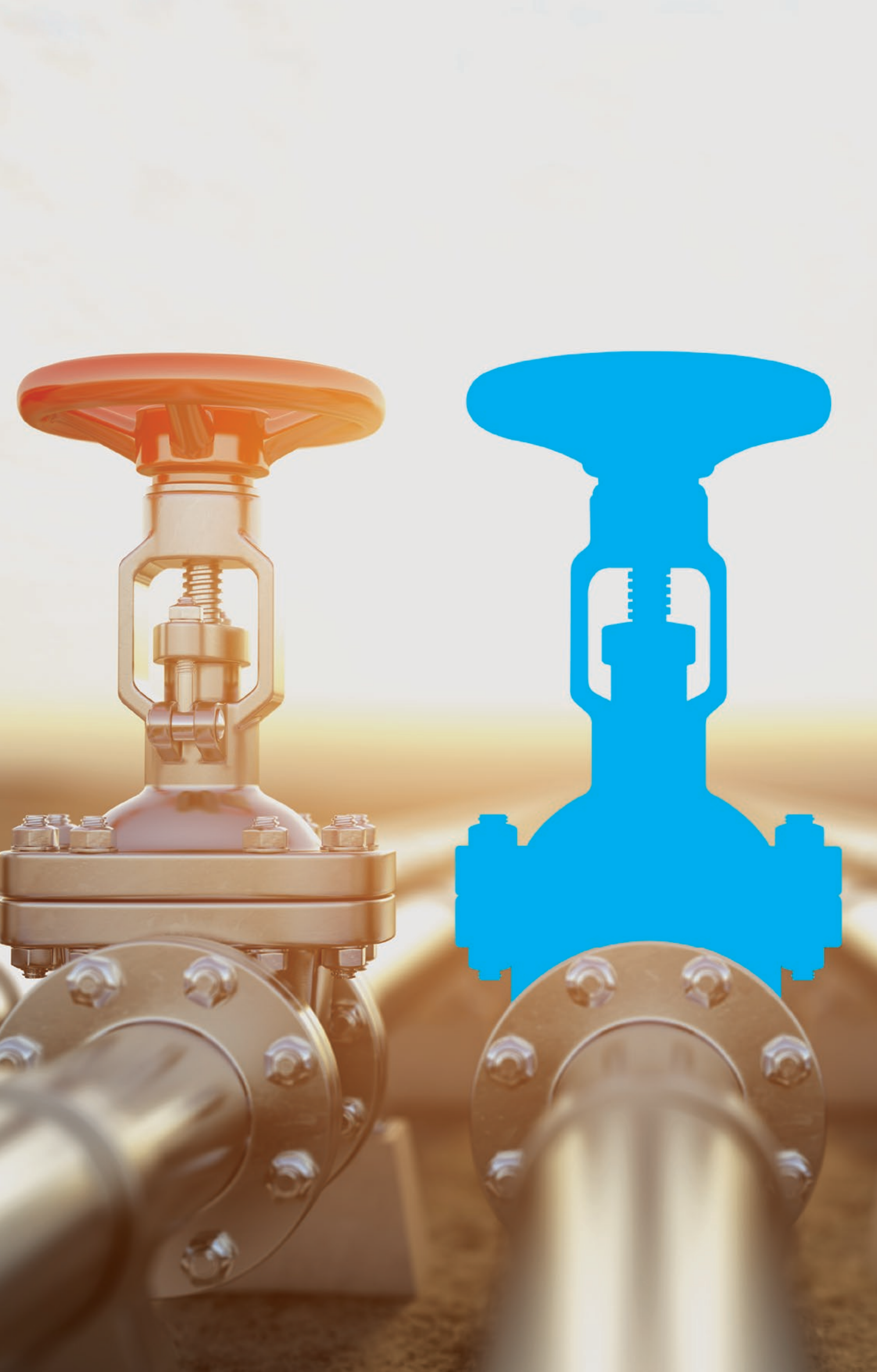
In order to ensure stronger focus on sustainability issues within the Business and Staff Departments, Focal Points (around 25) have been identified which, interfacing with the Sustainability Development structure, have the task of integrating sustainability into business processes, enhancing new projects associated with these issues, promoting communication and the exchange of information for activities related to sustainability and gathering the needs and expectations of the stakeholders with whom they interface.

As far as the Banco dell’Energia is concerned - the social responsibility project that emerged from the Brescia forum in 2015 - promoted by A2A with Fondazione AEM and Fondazione ASM, the phase has been concluded of selecting the winners from the third edition of the “Doniamo Energia” call for tenders promoted in collaboration with Fondazione Cariplo and reserved for the networks supported under the two previous editions. These associations have already promoted projects capable of intercepting fragile families at an early stage and are able to give a rapid and immediate response to that segment of the population that has found itself in need due to the economic and social repercussions of the COVID-19 health emergency. 17 projects have been awarded resources and are currently being implemented.

In December 2021, Banco dell’energia Onlus also launched the manifesto “Together to fight energy poverty”, to make actions in support of energy poverty more widespread and effective, involving a wide network of signatories, among which Acquedotto Pugliese, Adiconsum, Adoc, AISFOR, Comunità di Sant’Egidio, Croce Rossa Italiana, ENEA, Federconsumatori, Fondazione Utilitatis, Fratello Sole, Gruppo Hera, Iren, Lega Consumatori, Legambiente, Leroy Merlin, Metropolitana Milanese S.p.A., NextEnergy Foundation, Italian Observatory on Energy Poverty OIPE, (RI)GENERIAMO, RSE, Signify-Philips, Utilitalia.

As far as educational activities are concerned, A2A proposes various educational activities for schools on the themes of the circular economy and the energy transition. Among the novelties of this year, a series of webinars in collaboration with DeA Scuola that has already actively involved more than 1,800 teachers, a social campaign with ScuolaZoo composed of 5 podcasts and 5 vidcasts with 170,000 total views at the end of the year on channels close to young people such as Instagram and YouTube and a training project in Bergamo on district heating and its advantages, with the support of eco-designers for the development of students' creativity. The national Ecogame A2A competition was also launched, thanks to which primary and first-grade secondary schools will be able to take part in a digital challenge that enables them to put themselves to the test by acquiring transversal skills on energy transition.

The "Sustainability Olympics" also continue, created with the aim of involving and developing greater awareness of the so-called "Generation Z" on the meaning of sustainability, which involve over 670 classes of more than 200 second-grade secondary schools throughout Italy for the 2021-2022 school year. The project is developed in collaboration with Elis, a consortium that promotes quality vocational training. In April, the three winning classes will participate in the Creathon (creative marathon), which will be organized as part of Earth Day 2022.



3

Scenario and Market

3.1 Macroeconomic scenario

Overview

Global economic activity slowed in the first half of 2021 due to an increase in COVID-19 infections, uneven progress in vaccination campaigns, and the imposition of restrictive measures. In late spring, the rapid progression of vaccination campaigns and the gradual restart of many economic activities spurred growth in the world economy. According to the World Bank's preliminary estimate, global GDP is expected to increase by 5.5% on average in 2021. The advanced economies have been more resilient than expected, showing greater diligence to lock-downs, faster vaccination campaigns and a good response to the additional economic stimulus measures introduced. In contrast, the slowdown in emerging economies was more pronounced due to deteriorating epidemiological conditions and the slow pace of the vaccination campaign.

As for advanced economies, the Federal Reserve estimates US GDP to grow by +5.5% in 2021 with a recovery from the previous year, however still characterized by supply-side halts. China's GDP increased +8.1% in 2021 accelerating from +2.2% in 2020, a year in which growth was sharply affected by the first wave of the pandemic (source: National Bureau of Statistics in Beijing). Of note, momentum slowed significantly in the last quarter of the year due to several Coronavirus outbreaks in the country, the housing crisis and supply chain bottlenecks. In the fourth quarter of 2021, China's GDP grew only +4.0% while economic growth in the first, second and third quarters was +18.3%, +7.9% and +4.9%, respectively.

According to the preliminary estimate drawn up in December by the experts of the Eurosystem, the GDP of the Eurozone will rise by 5.2% in 2021 thanks to the recovery of economic activity and the easing of restrictions on companies.

The main national and global assessment bodies such as ISTAT, Bank of Italy and OECD agree on the boom of the Italian economy in the year 2021. After the unprecedented fall observed in 2020, the Italian economy is rebounding strongly with a forecast of GDP growth at a rate of +6.3% in 2021. The recovery in GDP was driven by an increase in industrial production and the recovery of the services sector, all flanked by a very sustained increase in consumption.

According to the preliminary estimate released by Eurostat, inflation in the Eurozone rose to +5.0% in December after +4.9% in the previous month: in the same month of the previous year, the value registered -0.3%. The energy component was the fastest growing component (up 25.9% from December 2020 and up 0.4% from November 2021). On average in 2021, the inflation target is +2.6%, the highest value since the start of the monetary union: the main reasons are to be found in the exceptional increases in the energy component and in particular gas, which is also affected in Europe by geopolitical factors.

In Italy, according to preliminary estimates by Istat, in December 2021, the national consumer price index (NIC) recorded a change of +3.9%. On average for the year, consumer prices grew by +1.9% from -0.2% in the previous year. This is the largest increase since 2012 (+3%). The upturn in inflation was essentially driven by the increase in the price of energy carriers, which stood at +14.1%.

Since the outbreak of the COVID-19 emergency, rapid and significant interventions by several central banks have been crucial to prevent an even greater decline in confidence and asset prices. In all major countries, monetary and fiscal authorities have put in place significant expansionary measures to support household and corporate income, credit to the economy and liquidity in the markets. Of particular importance was the activation and creation of swap lines between the major central banks to provide liquidity at international level. At its meeting on March 10, the European Central Bank (ECB) left the reference rate at an all-time low of zero, reaffirming its commitment to maintain it at its current levels at least until inflation converges to values close to 2%. The European Central Bank (ECB) has signalled that during the first quarter of 2022, the amount of the Pandemic Emergency Purchase Program (PEPP) will be reduced, terminating by the end of March 2022; the proceeds will be reinvested until at least the end of 2024. In line with a gradual reduction in asset purchases, the Governing Council of the ECB changed the timing of the Asset Purchase Programme (APP). Specifically, purchases will be at a monthly pace of 40 billion euro in April, 30 billion euro in May and 20 billion euro in June. In the third quarter, purchases will be recalibrated based on macroeconomic data trends. In particular, if new data confirm the expectation that the medium-term inflation outlook will not weaken even after the conclusion of net asset purchases, the Governing Council will end net purchases under the APP in the third quarter. Conversely, if the medium-term inflation outlook changes and financing conditions become inconsistent with further progress toward the 2% target, the Governing Council stands ready to revise the timing of net asset purchases in terms of size and/or duration. At its December meeting, the Federal Reserve (FED) decided to leave interest rates unchanged in the 0.00-0.25% range, and announced its intention to hold them steady until labour market conditions reach levels consistent with its assessment of maximum employment. At the January 26 meeting, the decision to leave rates unchanged was confirmed: Federal Reserve Chairman Jerome Powell expects a rate increase at the March meeting if current conditions remain unchanged. The tapering, i.e. the reduction of monetary stimuli, has accelerated: purchases of government bonds have been reduced, from January, by 20 billion dollars per month.

The year 2021 began with a EUR/USD exchange rate above 1.21 dollars, which remained around 1.20 dollars throughout the first half of the year. Starting in July, the single currency began to weaken against the dollar due to the energy crisis in Europe, rising inflation and the divergence of monetary policy between the European Central Bank and the Federal Reserve, settling below 1.14 dollars in December. On average for the year 2021, the EUR/USD exchange rate was 1.18 dollars, up 3.7% from the previous year.

Outlook

The forecasts from leading research institutes and government agencies below may be subject to further revision due to the ongoing conflict between Russia and Ukraine. Given the uncertainty regarding the outcome of the crisis, it is currently very difficult to quantify the potential impact of the conflict on the global economy: much will depend on its intensity and duration. The only certainty at the moment seems to be that the Eurozone will pay the heaviest bill due to its dependence on Russian energy supplies, while lesser repercussions are expected in the United States and Asia.

The World Bank cuts economic growth estimates: global GDP is expected to grow by +4.1% in 2022 (compared to +4.3% assumed last June) and then settle at +3.2% in 2023. After a strong rebound in 2021 with GDP estimated at +5.5%, the global economy is entering a pronounced slowdown caused by, in addition to the Ukraine crisis, the emergence of new variants of COVID-19, rising inflation, rising debt, persistent supply bottlenecks, and reduced support from both governments and central banks.

The outlook for the global economy shows an uneven trend across countries. In advanced economies, the acceleration of the vaccination campaign has allowed a gradual reopening of activities with higher contact rates, and fiscal stimulus measures have helped increase demand by reducing spare capacity and lowering the risks of serious long-term repercussions from the pandemic. Growth in advanced economies is expected to increase from +5.0% in 2021 to +3.8% in 2022 and +2.3% in 2023.

The Federal Reserve has projected that the US economy will grow +2.6% in 2022 and then slow to +2.3% in 2023. Japan's GDP, after +1.8% in 2021, is expected to rise to +3.4% in 2022 (upward revision of 1.3%) and +1.1% in 2023. China is expected to post +5.1% both this year and next (source: OCSE).

In emerging and developing economies, a significant reduction in GDP is expected: from an estimated +6.3% in 2021 to +4.6% in 2022 and +4.4% in 2023. Indeed, many emerging economies are of concern, whose growth will continue to be affected by slow vaccination campaigns, greater exposure to the risk of new variants, and the resulting containment measures. Growth forecasts for India for the current year are down from the +9.9% predicted in September to +8.1%, while the estimate for 2023 improves with expected growth of +5.5%. Estimates are worse for Brazil, which is expected to grow by +1.4% in 2022 (from +2.3% forecast in May) and then settle at +2.1% in 2023. Russia is expected to grow by +2.7% this year and +1.3% next.

The economic risks for the Eurozone have risen considerably following Russia's invasion of Ukraine. The European Central Bank has revised down its growth estimate for the Eurozone to +3.7% for this year (from +4.2% in December), to +2.8% for 2023 (from +2.9%) and confirmed +1.6% for 2023.

Estimating the impact of the crisis on the Italian economy is extremely difficult. The evolution of the conflict and the effects of financial and economic sanctions decided by Western countries are characterized by high uncertainty. According to ISTAT, Vladimir Putin's assault on Kiev will cost 0.7% less in GDP in 2022, which will fall from +3.8% estimated in January to +3.1%.

On average for the year, GDP is expected to increase by +2.5% in 2023 and +1.7% in 2024. The upward revision mainly reflects the stimulus effects of the support and recovery measures financed by the national budget and European funds, including those outlined in the National Recovery and Resilience Plan (NRP). The unemployment rate is expected to decline gradually from 9.4% on average in 2021 to 8.7% in 2024.

The ongoing conflict between Russia and Ukraine is further increasing the volatility of energy commodity prices, which were already at record levels before the outbreak of the war and leading to a generalized increase in inflation. Global consumer prices are expected to rise in the first part of 2022, whilethey are expected to moderate from the end of 2022.

According to the March forecasts formulated by ECB experts, inflation in the Eurozone is estimated at +5.1% this year, +2.1% next year and +1.9% in 2024. Three months ago, before the outbreak of war in Ukraine, forecasts were talking about +3.2% on 2022 and +1.8% on 2023 and 2024.

Inflation prospects in Italy have also been revised upwards, and are estimated at +3.5% this year, +1.6% in 2023 and +1.7% in 2024 (source: Bank of Italy).

With regard to the level of interest rates, the European Central Bank (ECB) and the Federal Reserve (FED) have taken different monetary policy paths. The European Central Bank reiterated its intention not to raise rates in 2022 and confirmed that it will remain ready to adjust all its instruments, where appropriate, to ensure that inflation stabilizes at the 2% target in the medium term. There remains a greater inclination in the ECB to support the economy, rather than to combat the rise in inflation, which is considered temporary. In contrast, the Federal Reserve expects three increases in the target range for the federal funds rate in 2022, and a further three in 2023.

Macroeconomic projections, formulated by leading analysts, indicate an exchange rate of EUR/USD fluctuating in a range between 1.14-1.20 in the two-year period 2022-23, with expectations of an appreciation trend for the dollar due to the announced start of tapering (progressive reduction of monetary stimuli) by the Federal Reserve and galloping inflation in both Europe and the United States.

3.2 Energy market trends

Electricity

As far as the national electricity market is concerned, in Italy in 2021 there was a net requirement of 318,075 GWh (source: Terna), up 5.6% compared to 2020; in seasonally adjusted terms, and corrected for calendar and temperature, the change is equal to +4.4%. The above requirements were met 51% from non-renewable sources, 36% from renewable sources and the remainder from imports. In 2021, there was a significant decrease in exports (-50.3%) compared to 2020.

Net energy production in 2021 was 278,109 GWh, up 2.4% compared to the previous year. Specifically, as regards renewable production sources, both photovoltaic (+2.1%) and wind power (+10.8%) show an increase; on the other hand, the geothermal source (-2.1%) and the hydroelectric source (-5.4%) show a decrease. Thermoelectric production is up, +3.8% compared with the previous year to 180,579 GWh. National production, excluding pumping, accounted for 87.4% of the demand for electricity, while net imports satisfied the remainder. Energy production from renewable sources was 113.8 TWh and substantially stable compared to 2020 (-0.2%).
The average value of the PUN Base Load in 2021 shows an increase of +221.3% compared to 2020, reaching 125.0 €/MWh. The dynamic is primarily driven by a return of electricity consumption to pre-pandemic levels and a significant rise in gas costs and CO2 allowances. The PUN, which in January 2021 stood at 60.7 €/MWh, showed an upward trend culminating in December with a value of 281.2 €/MWh. Average prices on the rise also for the price in the hours of high load (PUN Peak Load) with a value that stood at 139.8 €/MWh (+213.6% compared to 2020). The average price during off-peak hours (PUN Off-Peak) increased to 116.7 €/MWh, an increase of 226.8% compared with the previous year. For all of 2022, forward curves indicate Base Load PUN prices with average values above 200.0 €/MWh.

Natural Gas

In 2021, natural gas consumption rose to 76,233 million cubic meters (+7.8%), the highest level in the last ten years; the increase over 2020 appears to be distributed throughout the year, with the exception of July and August, and more intense in the spring months that last year, were characterized by the national lockdown induced by the health emergency (source: Snam Rete Gas). Growth was observed in all sectors: consumption in the thermoelectric and civil sectors increased by 6.1% and 8.0%, respectively, over 2020; consumption in the industrial sector returned to pre-pandemic levels at 14,057 million cubic meters (+6.4% over 2020).

On the supply side, the recovery in consumption led to an increase in natural gas imports during the period under review, which stood at 71,647 million cubic meters (+8.6%) and represented 95.8% of domestic demand, net of storage trends. Domestic production, which met the remainder, continued its downward trend and hit an all-time low of 3,125 million cubic meters, down 18.8% compared with the previous year.

As far as prices are concerned, there was a marked upward trend in the price of gas at the Virtual Exchange Facility which, after a slight fall in February and substantial stagnation in the following months, reached an average of 46.6 €/MWh in the third quarter of the year, before continuing to rise and reaching a price of 113.4 €/MWh in December. Specifically, the average price of gas to the PSV for 2021 amounted to 45.8 €/MWh, up 342.8% compared to 2020. For 2022, forward curves indicate prices with average values close to 84.0 €/MWh. The price dynamics on the main European hubs were similar: the average price of gas at the TTF in 2021 was 45.7 €/MWh, up 389.5% compared to 2020.

The trend in the respective prices resulted in a PSV-TTF differential of 0.1 €/MWh for the reporting period, significantly down compared to the differential of 2020 (1.0 €/MWh). In 2022, gas prices on the main European markets show a reversal of the downward trend with an expected price of gas at the PSV higher than the TTF: the forward curves indicate a PSV-TTF differential of around 1.6 €/MWh.

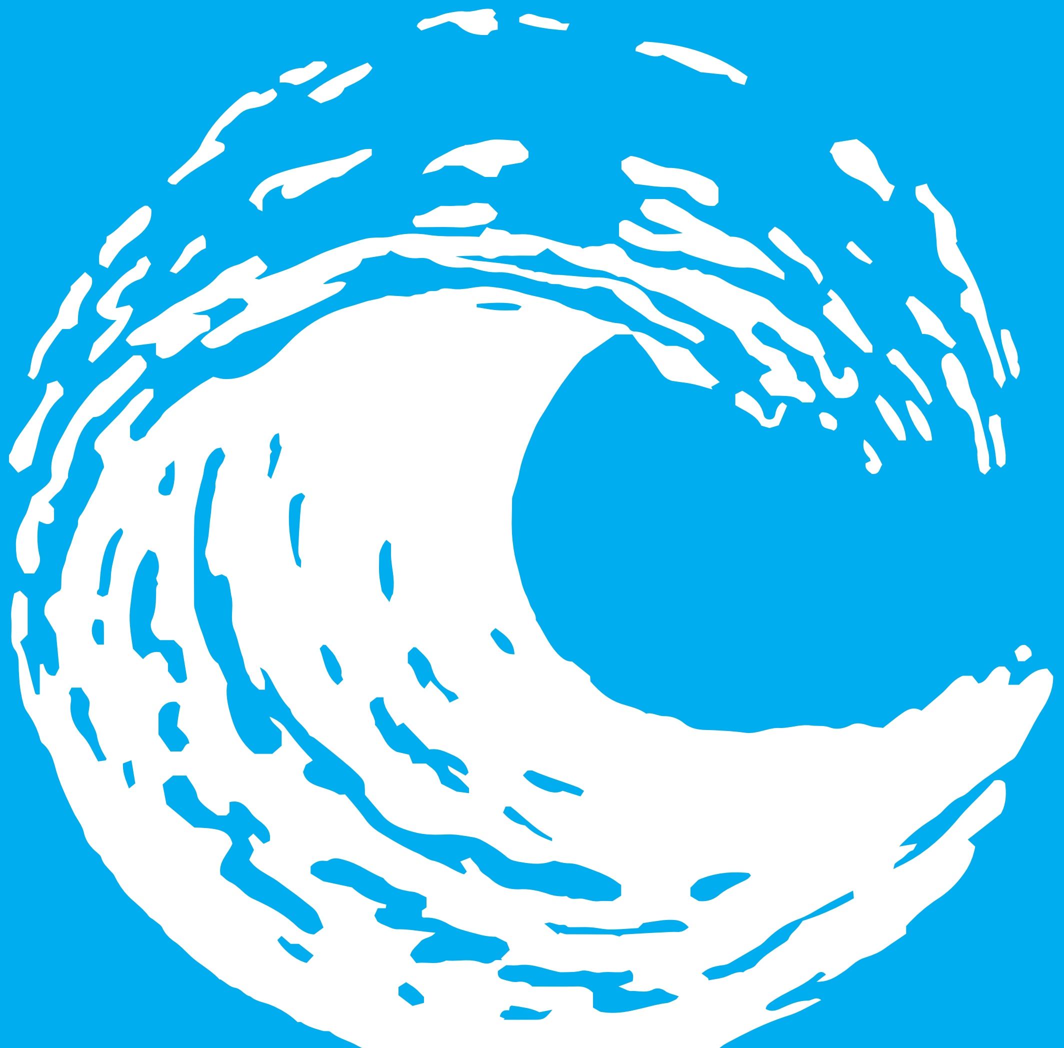
Oil and coal

In the year 2021, oil products returned to levels near or above pre-pandemic levels. Oil prices continued their upward trend, with an average value of 70.8 $/barrel, up 63.7% compared with the previous year. In October 2021, Brent prices reached their highest level since May 2019 and stood at 83.7 $/bbl. In 2021, the upward trend in prices stated in €/bbl was slightly dampened (+58.3%) by the appreciation of the euro versus the dollar, up 3.7% compared to 2020 (1.14 USD/EUR). For 2022, the most recent oil forward curves indicate prices with average values close to 83.4 $/bbl.

The Energy Information Administration (EIA) reported that global oil demand in 2021 averaged 96.9 million barrels per day, up 5.6 million barrels per day from 2020 when consumption decreased significantly due to the pandemic. The EIA predicts that beginning in 2022, global oil demand will surpass pre-pandemic levels by increasing by 3.6 million barrels per day and an additional 1.8 million barrels per day in 2023. Estimates of trends in oil consumption may undergo significant variations in relation to developments in the Ukrainian crisis.

OPEC crude production of member countries averaged 26.3 million barrels per day in 2021, compared to 25.6 million barrels per day the previous year. The EIA predicts that OPEC crude production will average 28.8 million barrels per day in 2022 and will rise to 28.9 million barrels per day in 2023. US crude production averaged 11.2 million barrels per day in 2021. The EIA forecast is for an increase that will average 11.8 million barrels per day in 2022 and rise to 12.4 million barrels per day in 2023: the highest average annual US crude production on record. Given Russia's role in global crude oil production, forecasts regarding production volumes and the possible use of strategic reserves could undergo significant variations in relation to the evolution the crisis in Ukraine.

Coal prices in 2021 showed an increasing trend, registering the maximum level in October with a price of 244.2 $/tonne, and then reversing, reaching a value of 143.1 $/tonne in December. On average in 2021, the price stood at 123.3 $/tonne, showing a decrease of 146.7% compared to the figure of the previous year (50.0 $/tonne). The appreciation of the euro against the dollar mitigates the upward trend in prices expressed in euro (+140.3%). For 2022, the most recent forward curves indicate prices with average values close to 139.5 $/tonne.



4

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

Legislative Decree no. 210/2021: transposition of EU Directive 2019/944 on the internal electricity market

On December 26, 2021 was the entry into force of Legislative Decree no. 210 of November 8, 2021, which implements EU Directive 2019/944 on the internal electricity market. This decree, which provides for a number of important additions to the regulatory framework for the electricity supply chain (wholesale, distribution and retail markets), will be followed in the coming months by specific acts on the part of MiTE, ARERA and Terna S.p.A., including:

- introduction of a mechanism for the long-term procurement of newly built storage capacity via auctions organized by Terna S.p.A.;
- with reference to the public service obligations of generating companies, the provision of criteria for the compensation of fixed costs in the event of refusal, for reasons connected with the security of the electricity system, of the request to take production units out of service;
- rationalization of the discipline of Simple Production and Consumption Systems (SSPC), providing for the simplification of the requirements necessary for their implementation;
- definition of criteria for the removal of the Single National Price (PUN) on the demand side;
- possibility for distribution companies to procure local services to operate their networks in a reliable and secure manner;
- introduction of electricity sub-concessions, subject to authorization from MiTE and for technical reasons;
- specific measures (mainly contractual and regarding greater transparency of communications) aimed at protecting end customers and enabling comparability of offers on the market;
- definition of the rules for the introduction of 24-hour switching in 2026;
- definition of the price protection regime for so-called "vulnerable customers" after the end of the protection regime;
- introduction of provisions on the installation and commissioning of advanced (2G) meters;
- introduction of provisions for public consultation on electricity grid development plans prepared by distributors;
- provisions for storage and electric mobility.

4.1 Generation and Trading Business Unit

Remuneration of the availability of production capacity: capacity payment and capacity market

The mechanism for remunerating the availability of production capacity in force until 2021 is the Capacity Payment defined in 2003 by Legislative Decree no. 379 as an administered, transitional system aimed at ensuring adequacy during critical days, identified by Terna S.p.A. with reference to which the difference between electricity supply and demand could be at minimum levels. This mechanism has been operating since 2004 as a result of Resolution 48/04, which provides that the Authority determines ex ante a specific revenue (about 180-200 million euro/year) collected thanks to electricity bills and paid in the form of two payments (CAP1 and S) to plants authorized for the provision of dispatching services and that are available on critical days.

Regarding the 2021 capacity payment, 32.8 million euro were paid to the A2A Group.

Legislative Decree no. 379 of 2003 had required that, under regime, the availability remuneration was to be based on a market mechanism (capacity market), which was subsequently envisaged by Resolution ARG/elt 98/11 and approved with MiSE Ministerial Decree of June 28, 2019, after the endorsement of the EU Commission. This mechanism consists of a one-way contract for differences entered into with Terna S.p.A. and awarded following an auction in which producers acquire the right to receive a bonus (in €/MW/year) with respect to the obligation to offer all the capacity committed in the MGP and the capacity not accepted as a result of the energy markets on MSD, returning to Terna S.p.A. the difference - if positive - between the market benchmark prices and a strike price (in €/MWh).

In the auctions for the two-year period 2022 and 2023 held in November 2019, A2A S.p.A. was awarded all the capacity offered, namely around 5 GW/year for approximately 340 million euro in total premium (gross value net of possible penalties for unavailability). Approximately 0.12 GW for 2022 and 0.24 GW for 2023 are related to new capacity. The award price in both auctions was 33,000 €/MW/year for existing capacity and 75,000 €/MW/year for 15 years for new capacity (i.e. awards were at cap).

Some operators and Associazione Italia Solare filed an appeal for the annulment of the Ministry of Economic Development Decree of June 28, 2019 and related acts of ARERA and Terna S.p.A., also proposing an appeal to the EU Court of Justice. The hearing on the merits of the Regional Administrative Court has been postponed pending the decision of the EU Tribunal, which is expected in 2022. A2A S.p.A. has appeared as a counterparty to defend the legitimacy of the awards.

With reference to the 2022 and 2023 deliveries, Terna S.p.A., jointly with the MiTE (Ministry of Ecological Transition), intervened granting extensions to the deadlines for submitting authorization certificates in the case of new non-authorized capacity and for the deadlines for the start of the delivery period for new capacity. In the latter case, the final term of the contract was also extended by a period equal to the extension granted for the start of the delivery period. The new deadlines have been set as follows:
- presentation of the authorization certificates for the new non-authorized capacity: by December 31, 2020 (for delivery 2022) and by October 31, 2021 (for delivery 2023);
- start of delivery for new capacity (subject to reasoned request): July 1, 2022 (for delivery 2022) and July 1, 2023 (for delivery 2023).

A2A S.p.A. has obtained the authorizations for all the new unauthorized capacity awarded:
- 2022 delivery: repowering of the combined-cycle plants of Cassano and Chivasso;
- 2023 delivery: repowering of the combined-cycle plants of Piacenza and Sermide and for the Cassano engines.

The MiTE Decreee of October 28, 2021 approved the Discipline of the capacity market for the years 2024-2025, subject to positive verification by ARERA (Resolution 378/2021/R/eel). The auction date for the 2024 delivery is set for February 21, 2022 while, with reference to subsequent years, further use of the capacity remuneration system will be determined on the basis of adequacy assessments for the three consecutive years.

Compared to the auctions held in 2019, the mechanism has some changes: the most significant ones concern the possibility of bidding in relation to non-relevant new units, the introduction of more details for the participation of storage systems, the possibility for successful bidders of new unauthorized capacity to obtain authorization titles up to 6 months before the delivery date, the possibility for new or repowered capacity to extend the start of the delivery period until December of the first year of delivery, with a corresponding postponement of the final term of the contract (and application of a penalty for each month of delay), as well as the right to fully assign the contract subject to Terna S.p.A. consent.

With Resolution 399/2021/R/eel, ARERA defined the new economic parameters of the capacity market:
- cap on the premium: 70,000 €/MW/year for new capacity (down from 75,000 €/MW/year planned for 2022-2023 delivery) and 33,000 €/MW/year for existing capacity (confirmed and coincident with as planned for foreign capacity);
- criteria for defining the strike price confirmed: for the purposes of calculating said price, equal to the variable cost of an open cycle gas turbine fuelled by natural gas (with yield defined by ARERA), the element covering the cost of gas supply is defined for each month using the forward prices recorded at the TTF hub in the previous month. Moreover, a price risk mitigation mechanism is envisaged in the event that the gas system is in a state of emergency, as declared by MiTE.

Remuneration of plants essential for the safety of the electricity system

By way of Resolution 803/2016/R/eel, the 220 kV plant of the San Filippo del Mela plant (groups 2, 5 and 6) was contractualized by Terna S.p.A. under the must-run regime with reintegration of costs for the five-year period 2017-2021. A2A Energiefuture S.p.A. undertook to contain the requests reinstatement of costs below a certain cap that ensures the coverage of fixed costs, variable costs of management and equitable remuneration, as well as a saving for the system as said level of reinstatement is lower with respect to the calculation provided by the standard must-run regime (pursuant to Resolution 111/06).

Resolution no. 269/2020/R/eel declared the power plant "essential" also for 2022 without the provision of commitments on the amounts recognized for reinstatement.
In 2021, ARERA provided:
- with Resolution 481/2021/R/eel, the payment of 14 million euro corresponding to the balance of the reinstatement fee for 2018;
- with Resolution 500/2021/R/eel, the payment of 16.1 million euro as the second advance payment for 2020;
- with Resolution 565/2021/R/eel, the payment of 26 million euro as the first advance payment for 2021.

In 2021, ARERA also accepted two requests concerning the variable cost recognized:
- Resolution 434/2021/R/eel defined the modification of the fuel index as of August 18, 2021, in view of the new emission constraints in force as of that date;
- with Resolution 563/2021/R/eel, the request was accepted to provide for a percentage of 2.5% on both sides from 2022 for the purposes of calculating the component covering the imbalance fee (as an exception to the previous values of 1.3% for positive imbalances and 1.4% for negative imbalances).

With reference to the year 2021, the value of the reinstatement is estimated at around 51 million euro. This value takes into account the commitment envisaged for 2021 as well as the value recognized for the investments relating to the continuation of the essentiality regime in 2022; this amount does not, however, account for the economic effect - still uncertain - of the combined effect of Resolution 434/2021/R/eel on the modification of the fuel index and the application recently submitted to Terna and the Authority for the modification of the reference yield.

Forward procurement of resources for voltage regulation in the Brindisi area

Resolution 675/2018/R/eel approved the Regulations and the Draft Contract proposed by Terna S.p.A. for the forward procurement of resources for voltage regulation in the Brindisi area. The supply of reactive energy is necessary not only to maintain the stability of voltage in the area, compromised by the presence of intermittent renewable sources, but also to reduce dispatching costs in the shortest possible time.

Following the auction on February 20, 2019, A2A Energiefuture S.p.A. was awarded 286 MVAr of reactive energy at a weighted average price of 28,098 €/MVAr/year. The first device came into operation on March 1, 2020 and the second on June 1, 2020, one month ahead of the auction.

The contract provides for the supply of continuous and automatic voltage regulation, without active energy input, for a value no lower than the contracted power (net of scheduled maintenance and periods of accidental unavailability subject to deductibles). The remuneration is composed of a fixed part (to cover the investment and equal to the product between the capacity committed and the price offered) and a variable part (to cover the costs related to the withdrawal of electricity necessary for the operation of the device). The economic adjustment is made on a monthly basis.

Programmed and accidental unavailability up to a certain threshold is not subject to a penalty, while beyond this threshold there are penalties, which can reach, for each calendar year, up to 120% of the remuneration for each unavailable device. Finally, the guarantee requested by Terna S.p.A. is equal to 120% of the remuneration covered by the contract.

The total 2021 amount is approximately 8 million euro.

Incentives for production from renewable sources: implementation of the EU RED II Directive

With the approval of Legislative Decree no. 199 of 2021, which implements EU Directive 2018/2001 (so-called RED II), Italy has redefined the framework of incentive schemes for the production of energy from renewable sources necessary to achieve the decarbonization targets by 2030. This new measure modifies the previous regulatory framework regarding incentives for renewable sources (Legislative Decree March 3, 2011, no. 28) and requires that by 2030, at least 30% of gross final consumption be supplied by renewable sources, outlining the characteristics of the new support mechanisms.

In particular, with regard to the production of electricity, the new Legislative Decree provides for:
- pending definition of the new incentives, the extension of the current mechanism (RES MD 2019) until the unallocated quotas are exhausted. In this regard, the GSE has already defined the eighth competitive procedure (starting on January 31, 2022) and a possible ninth procedure, which will open on May 31, 2022;
- for plants close to economic competitiveness (firstly, photovoltaic and wind power), a new incentive MD will be defined in the second half of 2022, characterized by a five-year planning horizon. Plants with a capacity of over 1 MW will continue to have access to incentives through competitive procedures (auctions), with quotas divided by geographical areas and bonuses for the use of storage systems, while those of a smaller size will have direct access to the support mechanism (abolition of registers);
- in order to facilitate the authorization procedures, in the second half of 2022, it is foreseen that a special MiTE Decree will identify the criteria for the definition of the areas suitable (and not suitable) for the installation of renewable source plants: the Regions will have 180 days from the date of publication of the Ministerial Decree to proceed with the identification of these areas to the extent of reaching at least the installation targets foreseen by the PNIEC to 2030. In eligible areas, the landscape opinion will not be binding for the purposes of obtaining authorization and the time limit for obtaining authorization will be reduced by one-third;
- again the MiTE, in the first part of 2022, is called upon to define the modalities of disbursement of the resources allocated by the PNRR and intended, among others, for agri-voltaic systems, biomethane, hydrogen, recharging columns and the development of new efficient district heating networks.

In 2021, the Government intervened with a new Simplification Decree (LD 77/2021) aimed at encouraging the development of new renewable source plants. The main interventions include the setting up of the new EIA Commission for PNIEC-PNRR projects (including photovoltaic and wind power), the introduction of the national EIA procedure for photovoltaic plants over 10 MW, the extension of the simplified authorization procedure for photovoltaic plants in industrial areas up to 20 MW connected to medium voltage (with exemption of the EIA up to 10 MW) and some interventions aimed at further encouraging repowering interventions on existing plants.

At December 31, 2021 the incentives paid by the GSE to the A2A Group's plants powered by renewable sources amounted to 73.8 million euro.

GSE incentive type
millions of euro

Feed in tariff	39.2
TO and RID	10.0
Energy account (FV)	24.6
Total	**73.8**

Large hydroelectric derivation concessions

Article 11-quater of Law no. 12/2019 partly amended the rules on large derivation hydroelectric concessions (plants with nominal power greater than or equal to 3 MW). The new rules provide that the Regions shall regulate with their own laws by March 31, 2020 (deadline extended to October 31, 2020 by the Cura Italia Decree Law, and to date not respected by many Regions) methods, procedures and criteria for the allocation of concessions, which may be entrusted to economic operators identified through a tender, or to public/private joint ventures with selection of the private partner through a tender, or through forms of partnership under Legislative Decree 50/2016. The procedure for awarding the contract must be started within 2 years of the entry into force of the Regional Laws and, in any case, no later than October 31, 2022 (L.D. 18/2020).

The Regions may also require concession holders to provide 220 kWh a year free of charge for each kW of average nominal power of the concession and may require the payment of an additional fee for expired concessions operated on a temporary basis.

In terms of compensation to outgoing operators, the new rule prescribes:
- for wet works: the transfer without compensation of ownership to the Regions, except for the compensation only of investments not yet amortized;
- for dry works: the recognition of a residual value derived from accounting records or certified appraisal. In the event of non-inclusion in the project of the incoming concessionaire, removal and disposal of movable property is envisaged at the expense of the proposer, while immovable property remains the property of the entitled parties.

On April 8, 2020, Lombardy enacted Regional Law no. 5/2020 (amended with Regional Law no. 19/2021), which governs the methods and procedures for awarding concessions for large-scale hydroelectric derivations and determines the related state fee.

The new state fee has a fixed part related to the concession power and a variable part as a percentage of the revenues from the sale of energy fed into the grid by the plant, net of energy supplied free of charge to the Region.

Lombardy Regional Law no. 23/2019 also imposed on concessionaires, starting in 2020, the obligation to provide free electricity to the Region (220 kWh for each kW of concession power), providing for the possibility of monetizing the fulfillment. For concessions under the so-called temporary continuation, there is an additional annual fee determined on a reconnaissance basis at 20 euro/kW.

Most of A2A S.p.A. large-scale derivation concessions in Valtellina (for a nominal concession power of around 200 MW) have expired and exercised under temporary continuation, most recently in accordance with Lombardy Regional Council Resolution no. XI/5823 of December 29, 2021[1]. The Linea Green S.p.A. concession of Resio also expired on December 31, 2010, and the temporary continuation of operations was also established for this concession.
Other A2A S.p.A. hydroelectric concessions (plants in Mese, Udine and Calabria with total nominal power of about 345 MW) expire in 2029. Also added are the large-scale derivations not yet expired of Linea Green S.p.A. (Mazzuno and Darfo), as well as the concession of Gravedona of ACSM-AGAM S.p.A. expiring in 2029.

Closing of the dispute concerning Resolution ARG/gas 89/10 and settlement of amounts

Following the appeal lodged by the A2A Group's sales companies against Resolutions ARG/gas 89/10 and 77/11, by which ARERA introduced an equal reduction coefficient k applied to the indexed component to cover procurement costs (QE) for thermal years 2010/11 and 2011/12, the Council of State, with Sentence no. 4825 of November 18, 2016, confirmed the reasons of the claimants and annulled the measures.

By means of Resolution 737/2017/R/gas, the Authority redetermined the above coefficient k, while by means of Resolutions 32/2019/R/gas and 247/2020/R/gas, it introduced a mechanism for recognising the amounts due to sellers by establishing a socialization component on the distribution tariff and gas metering paid by customers with reference to the first 200,000 Scm consumed (sub-component of UG_2 called UG_{2k}).

On May 31, 2019, A2A Energia S.p.A., Lumenergia S.p.A., ACEL Energie S.r.l. and Enerxenia S.p.A. (now ACEL Energie S.r.l.) and Gelsia S.p.A. applied to the CSEA for access for a total of 24.7 million euro, which were settled in three sessions between April 1, 2020 and December 31, 2021. The amount attributable to the Generation and Trading Business Unit of 12.2 million euro, of which 75% was paid in 2020, while the remaining 25%, equal to about 1.5 million euro, was paid in December 2021.

1 The concessions of Grosotto, Lovero and Stazzona expired December 31, 2010 while the one of Premadio 1 at July 28, 2013 (Premadio 2 has validity until December 31, 2043). The Grosio concession expired on 15 November 2016.

4.2 Market Business Unit

2017 Competition Law and removal of price protections for electricity and gas

Law August 4, 2017, no. 124, as amended. (Competition Law 2017) contains provisions aimed at removing regulatory barriers to the opening of markets, promoting the development of competition and guaranteeing the protection of consumers. Article 1, paragraphs 59 to 85, introduces relevant provisions relating to the energy market, providing, inter alia, for the end of price protection schemes from January 1, 2021, for small electricity businesses and from January 1, 2023, for electricity and gas household customers and micro electricity businesses[2], according to the methods and criteria defined by the MiTE aimed at guaranteeing the aware transition thereof in the free market.

LD no. 152 of November 6, 2021 (so-called Recovery LD), established that for domestic electricity customers, the transition will take place gradually through the introduction of a transitional regime until January 1, 2024. In this period, the auctions aimed at assigning the above-mentioned customers still supplied in the service of greater protection must take place. The Recovery LD also provides that the protection service will continue to be applied to so-called vulnerable and energy poverty customers until adoption of the measures provided for in art. 11.2 of Legislative Decree no. 210/2021 according to which all sellers are required to offer such customers a price that reflects the cost of energy in the wholesale markets.

Resolution 491/2020/R/eel defined the Gradual Protection Service (STG) to be activated as from January 1, 2021 for small businesses, other than micro-businesses, without a supplier on the free market[3]. For the period from January 1 to June 30, 2021 (provisional regime), the STG was provided by the current operators of the greater protection at economic and contractual conditions almost unchanged while, from July 1, 2021 (definitive regime), for a period of 3 years, the STG will be provided by operators selected by auction organized by Acquirente Unico S.p.A..

The auction, which took place on April 26, 2021, awarded 9 customer lots, with a maximum limit of areas that can be per individual operator equal to 35% of total volumes. The lots were allocated on the basis of the lower value offered for the β parameter, expressed in €/MWh, to cover marketing and unbalancing costs not already recognized by ARERA, for which a floor was set at zero. The contractual terms and conditions applied are the same as those for the PLACET Offer, while the economic conditions defined by ARERA provide for the introduction of a "single national fee" (determined by weighting the β parameters offered at auction in the various areas).

A2A Energia S.p.A. was awarded 3 lots (Lazio; Lombardy excluding Milan; Veneto, Liguria and Trentino-Alto Adige), for a total of approximately 80,000 PODs and around 1.8 TWh/year.
We are still waiting for the MiTE MD regarding the Electricity Vendor List.

Prescription of electricity and natural gas consumption dating back more than two years

The Budget Law 2018, in article 1, paragraphs 4-10, introduced the statute of limitations in electricity and gas supply contracts with reference to consumption dating back more than two years, with significant impacts in the relationships between customers and sellers, between distributors and sellers and in those with the transmission operator and with the other subjects of the supply chain. The effective date of this provision has been differentiated: from March 1, 2018 for the electricity sector and from January 1, 2019 for the gas sector.
The Law initially provided that the prescription not be recognized to the customer in the event that the missed or erroneous collection of consumption data was attributable to the customer; however, paragraph 295 of article 1 of the Budget Law 2020 removed this case, providing for the recognition of the prescription period even in cases of ascertained liability of the customer, and in fact, introducing an objective responsibility for operators of the supply chain, especially those responsible for metering, even in the absence of a specific assessment of faults or inefficiencies in their operations[4].

2 According to the EU definition, micro-electrical enterprises have fewer than 10 employees and an annual turnover not exceeding 2 million euro.
3 The perimeter of this first batch covered about 230,000 subjects between small businesses (number of employees between 10 and 50 and/or annual turnover between 2 and 10 million euro) owners of LV withdrawal points and micro-businesses owners of at least one point of withdrawal with contractually committed power greater than 15 kW that, at December 31, 2020, had not yet chosen supply in the free market.
4 In this regard, mention should be made of the closure in January 2021 of the investigative proceedings initiated by the AGCM against certain sales companies with the imposition of a total fine of 12.5 million euro. The Antitrust Authority has, in fact, ascertained the unjustified rejection of the two-year statute of prescription requests submitted by users, due to the late billing of electricity and gas consumption, in the absence of evidence that the delay was due to the responsibility of consumers.

Starting in 2018, ARERA intervened with numerous measures in order to implement the legislative provision, and most recently with Resolutions 603/2021/R/com and 604/2021/R/com, which will come into force from 2022. On the one hand, in compliance with the Sentences of June 14, 2021, no. 1441, 1444 and 1449 of the Lombardy Regional Administrative Court, it amended Resolution 569/2018/R/com, and, on the other hand, defined the methods of compensation of settlement items arising from exceptions to the two-year statute of limitations raised by the end customer and the seller, giving the CSEA the role of compensating party vis-à-vis the seller and, with specific reference to the electricity sector, promoting the quality of the metering service of distribution companies, through greater responsibility on their part, in order to reduce the adjustments made available with delays of more than two years.

Components to cover marketing costs on the electricity protected market, on the free electricity market and on gas protection

Resolutions 604/2020/R/eel and 603/2020/R/gas updated for 2021 the RCV and PCV components (covering the cost of marketing electricity in the greater protection and deregulated markets, respectively) and QVD (covering the cost of marketing gas in the retail market).
Compared to the 2020 values, the intervention saw a reduction in recognized costs, (in particular, in both resolutions, ARERA stated that *"at the moment, there are no prerequisites for different or additional recognition interventions with respect to the ordinary ones provided by the regulations in force"* with reference to delinquency rates, which remain in line with those of previous years despite the fact that 2020 was affected by the COVID-19 pandemic).

PCV €/POD/year	2020	2021
	Single national	Single national
Domestic POD	65.12	65.44
Various use POD	125.64	124.71

RCV €/POD/year	2020		2021	
	C-North	C-South	C-North	C-South
Domestic POD	26.94	29.91	24.42	26.67
Various use POD	49.44	71.17	47.42	65.83
	C-North	C-South	C-North	C-South
Domestic POD (RCVsm)*	41.55	44.10	41.19	42.66
Various use POD (RCVsm)*	69.67	101.78	72.00	107.73
	C-North	C-South	C-North	C-South
Domestic POD	21.55	23.92	19.54	21.34
Various use POD	39.55	56.94	37.93	52.67

QVD €/PDR/year	2020		2021	
	€/PDR/year	c€/mc	€/PDR/year	c€/mc
Domestic PDR	63.61	0.7946	62.74	0.7946
PDR condominium home use <200,000	83.55	0.7946	82.39	0.7946

(*) Remuneration for marketing the sale of minor separate companies (≤ 10 MIO POD)

Resolutions 401/2021/R/gas and 402/2021/R/eel postponed the 2022 update of the RCV, PCV and QVD components to the second quarter of 2022, in light of the need to carry out in-depth studies linked to the evolution of the structure of the retail markets and to align the remuneration methods of the various regulated parties.

Further mechanisms to cover the efficient costs of the greater protection of electricity and incentives for the dissemination of bills in dematerialized format

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

- in May 2021, 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 recognising the additional fixed cost connected to a customer exit rate towards the free market greater than that implicitly recognized in the definition of the RCV component, for an amount equal to 30,000 euro, which was paid in the 2nd half of 2021 (PUC 2020);
- in April 2021, 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 within the RCV component (COMP 2020), for an amount equal to about 900,000 euro, which will be paid in the 1st quarter of 2021.

Resolution 477/2021/R/com revised, starting from 2022, the incentive mechanism for the dissemination of bills in dematerialized format for operators of the service of greater protection for electricity and gas, reducing the minimum threshold of customers who access the electronic bill to obtain full reinstatement of the discount recognized in the bill. The new mechanism is retroactive in nature and will make it possible, upon first application (2022), to request compensation with reference to the years between 2016 and 2021.

Compensation mechanism for general system charges not collected from final customers

Resolution 32/2021/R/eel introduced a mechanism for the recognition of General System Overheads (GSO) not collected from defaulting end customers, however already paid to the distributors by the selling companies. The mechanism starts in 2016 (entry into force of the Standard Network Code) and will apply until the adoption of specific interventions, including legislative ones, aimed at a different management of the GSO collection chain and the related guarantee system. Transport users may participate, including on behalf of their commercial counterparts, choosing annually between:

- an ordinary regime: in which there is granting of uncollected GSO for which invoices have been due for more than 12 months and the appropriate credit protection procedures have been activated, and GSO waived as a result of settlement, assignment or credit restructuring agreements;
- a simplified regime: in which 75% of the estimated amount of Uncollected Declared GSO is recognized, compared to the values found in the company's accounting situation indicated in the compulsory communications required by the unbundling (TIUC) and in the approved financial statements.

In this first session (previous), the amount recognized was reduced by the "rec.Pricing" because it was assumed that a seller operating in the electricity market also recovered, in its pricing activity, the costs of the expected default related to the GSO until May 24, 2016, the date of publication of CdS sentence 2182/2016 establishing the principle that the entities obliged to pay the GSO are the end customers.
In this first session of the mechanism, CSEA paid the A2A Group's selling companies an amount of approximately 4 million euro.

Prescriptive and sanctioning measures for non-diligent scheduling strategies within the electricity dispatching service (i.e. electricity imbalances)

Resolution no. 111/06 defines the rules for the calculation of imbalance prices to be applied to the differences between the feed-in and consumption plans and the actual production and withdrawals. Proper scheduling is desirable because it allows for more effective system safety management and promotes cost reduction. For these reasons, the discipline of these imbalances has been the subject of several amendments by the Authority in order to align the regulation to the need for an efficient market configuration, pushing operators to make increasingly better production and consumption forecasts, and avoiding arbitrage between prices on different markets[5].

In 2016, given the significant increase in dispatching costs, ARERA launched a fact-finding investigation from which numerous prescriptive and/or asymmetric regulation and sanctioning measures were derived

5 Lastly, ARERA intervened with Resolution 523/2021/R/eel, which implements the reform of the regulation of imbalances, in implementation of the European regulatory framework. The main additions include the extension, as of April 1, 2022, of the single price mechanism for the valuation of the imbalances of all units, without distinctions based on characteristics, and the introduction of additional fees for the failure to comply with dispatching orders for qualified units.

towards some operators for their "non-diligent" scheduling strategies. These proceedings have not yet been concluded due to the litigation they have generated.

As regards the A2A Group, the adoption of prescriptive measures concerned:

- Linea Più S.p.A. (now A2A Energia S.p.A.): the measure imposed returning approximately 3.9 million euro to Terna S.p.A.;
- Enercity S.r.l. (then Suncity Energy S.r.l. and now A2A S.p.A.): the measure imposer returning approximately 737 thousand euro to Terna S.p.A..

The same companies were also subject to sanctions for violation of article 14.6 of ARERA Resolution 111/06 ("diligent planning"). In particular:

- Linea Più S.p.A. (now A2A Energia S.p.A.) was imposed a fine of approximately 1.5 million euro (Resolution 164/2018/S/eel);
- for Enercity S.r.l. (then Suncity Energy S.r.l. and now A2A S.p.A.), the proceedings (initiated by Determination DSAI/81/2017/eel) have not yet been concluded.

Linea Più S.p.A. (now A2A Energia S.p.A.) appealed against both the prescriptive measure and the penalty measure. Enercity S.r.l. (then Suncity Energy S.r.l. and now A2A S.p.A.) also appealed against the prescription.

A2A Energia S.p.A. and Suncity Energy S.r.l. (now A2A S.p.A.) settled in 2019, the amounts of the prescriptive measure to Terna S.p.A. and A2A Energia S.p.A. also the amounts of the fine to ARERA.

On September 24, 2020 for A2A Energia S.p.A. and on May 26, 2021 for Suncity Energy S.r.l. (now A2A S.p.A.), the Council of State upheld their respective appeals against the prescriptive measures and Terna S.p.A. compensated respectively, in November 2020 for an amount of approximately 3.9 million euro, A2A Energia S.p.A. and in June 2021, for an amount of approximately 737 thousand euro, Suncity Energy S.r.l. (now A2A S.p.A.).

In light of the Authority's power of review, A2A Energia S.p.A. has set aside a provision of the same amount and Suncity Energy S.r.l. (now A2A S.p.A.) a provision of approximately 500 thousand euro. Resolution 217/2021/E/eel, in compliance with the rulings of the Council of State, has in fact initiated new proceedings aimed at revising or, possibly, confirming the aforementioned prescriptive measures.

With reference to A2A Energia S.p.A.'s dispute against the sanction, on September 27, 2021, the Council of State annulled Resolution no. 164/2018/S/eel and, as a result of this sentence, the company was paid approximately 456 thousand euro in December 2021. The remaining amount, including accrued statutory interest, will be paid in 2022.

Introduction of a new fee to cover net capacity supply charges

Resolution 365/2019/R/eel introduced a new fee to be collected through the electricity bill aimed at covering the costs related to the operation of the capacity market. As of January 1, 2022, the new fee will be applied to users of withdrawal dispatching and will be divided into two unit fees: the first to be applied during the peak hours of the electricity system and the second to be applied during the remaining off-peak hours. The fees are appropriate to cover 70% and 30%, respectively, of the net charges arising from the capacity market.

These values are established, together with the indication of the peak and off-peak hours, by Terna S.p.A. and when first defined were set at 39.799 €/MWh for peak hours (annual update) and 1.296 €/MWh for off-peak hours (quarterly update).

Resolution 566/2021/R/eel also defined the methods for transferring the charge to end customers, establishing that for customers in the free market, in compliance with the principle of price negotiation between the parties, sellers may independently define the methods of application. On the other hand, with regard to services of last resort and PLACET offers, ARERA has established that for customers:

- in the higher protection service: the fee is included in the PD element (dispatching price) that makes up the tariff;
- in the STG: a one-off fee published by ARERA before the start of each quarter and for each month of the quarter is applied. This fee will be included in the Cdisp (dispatching fee) that forms the price charged to customers;
- for the safeguard service: a one-rate fee is applied, differentiated for each month of application, defined by Terna S.p.A. on a quarterly basis;
- with PLACET offers: the one-rate fee defined for customers served in the STG is applied.

Updating of the provisions of the Integrated Settlement Text (TIS) regarding conventional load profiling

Following the notifications made by some operators and the publication of DCO 435/2021/R/eel, Resolution 570/2021/R/eel has updated the provisions contained in the Integrated Settlement Text (TIS) concerning the conventional profiling of withdrawals in order to take into account the impacts on the settlement process caused by the significant discontinuities that are affecting the electricity system consisting, first and foremost, of the installation and subsequent implementation of 2G Smart Meters, which enable, among other things, hourly metering of energy withdrawn, as well as the gradual increase in the efficiency of public lighting systems, which draw less energy than in the past.

In particular, said phenomena ensure that the current settlement mechanism, which uses estimates based on annual withdrawal data and is designed on a system that is in a "static" phase and not subject to sudden changes such as those described, is no longer able to allocate monthly to individual dispatching users, a share of Area Residual Withdrawal (so-called PRA, i.e., unmetered energy on an hourly basis withdrawn in a particular reference area and allocated parametrically to all dispatch users active in that area) consistent with withdrawals subsequently determined based on actual metering data, with potentially adverse consequences.

In order to minimize these impacts, the Authority has modified the PRA allocation mechanism by providing for the use of data and parameters updated on a four-monthly basis from the first quarter of 2022 on a simplified basis and from the second quarter on a definitive basis, considering for this purpose:
- only the PODs that will not be processed on an hourly basis under the TIS in said four months;
- the latest metering data.

Henceforth, the settlement mechanism, using more granular estimation data, will be able to provide a more consistent estimate of the PRA share attributed to the individual dispatching user.

Award of the safeguard service for the two-year period 2021-2022

The Law August 3, 2007, no. 125/07 established a safeguard service for all companies and public bodies without an electricity supplier and that have at least one medium or high voltage supply point or only low voltage points with more than 50 employees or an annual turnover of more than 10 million euro.

A2A Energia S.p.A. was selected, through a public tender procedure, for the period January 1, 2021 - December 31, 2022, as the electricity supplier for the safeguard service in batch 2 (Lombardy) and batch 4 (Marche, Tuscany and Sardinia), for about 650 GWh.

The prices charged are determined in accordance with the Authority's rules and the calculation methods laid down by the MiSE and include wholesale electricity costs, dispatching and commercialization costs. In particular, A2A Energia S.p.A. applies to the energy supplied and the related grid losses a consideration equal to the average monthly purchase prices on the GME market, differentiated by time slot and increased by the omega parameter (Ω) equal to 10.17 €/MWh for batch 2 and equal to 13.57 €/MWh for batch 4.

Finally, pursuant to the provisions of article 44 of Resolution no. 491/2020/R/eel (TIV), A2A Energia S.p.A. has submitted a specific request to CSEA for access to the mechanism relating to uncollected receivables from customers who cannot be disconnected for an amount of approximately 330,000 euro, which was settled in December 2021.

Closing of the dispute concerning Resolution ARG/gas 89/10 and settlement of amounts

Information about litigation is provided in the corresponding section that deals with the Generation and Trading Business Unit.

With regard to the amounts pertaining to the Market Business Unit, in relation to the requests submitted on May 31, 2019 by A2A Energia S.p.A., Lumenergia S.p.A., ACEL Energie S.r.l., Enerxenia S.p.A. (now ACEL Energie S.r.l.) and Gelsia S.p.A., of 12.5 million euro, 75% of the amount owed was paid in 2020, while the remaining 25%, equal to about 3.1 million euro, will be paid in December 2021 (with the exception of Lumenergia S.p.A., for which a payment of 50,000 euro is still pending).

Closing of the AGCM PS10728 investigation against A2A Energia S.p.A. for the application of online payment service costs by credit card

With measure dated September 20, 2017, the AGCM imposed a fine of 220,000 euro to A2A Energia S.p.A. for violation of the provisions of art. 62 of the Consumer Code on the application of surcharges for the use of the credit card for the payment of bills via the website. The company filed an appeal before the Lazio Regional Administrative Court stating that the surcharge requested was not due to the use of the payment instrument, but to the provision of a service that brings with it an objective added value (considering that since January 1, 2017, the company has discontinued the function of collection at the physical counters).

In addition, in order to protect the opposing needs for the protection of users and the creation of a competitive market, in which the economic and financial equilibrium of operators is safeguarded, article 19 of Directive 2011/83/EU (Consumer Rights Directive), implemented by the rule in article 62 of the Consumer Code, provides that Member States prohibit professionals to impose on consumers, in relation to the use of certain payment instruments, fees that exceed those incurred by the professional for the use of such instruments thus legitimizing, in our opinion, the conduct of A2A Energia S.p.A..

The Council of State subsequently accepted the appeal filed by Automobile Club d'Italia against the decision of the Lazio Regional Administrative Court, which had confirmed the validity of the measure by means of which AGCM had sanctioned the operator for violation of the aforementioned provision of the Consumer Code.

Filing of AGCM Proceeding PS11615L against A2A Energia S.p.A. for the removal of possible unfairness in commercial offers to customers

With a provision of June 15, 2021, the AGCM invited A2A Energia S.p.A. (so-called moral suasion) to remove the profiles of possible unfairness in relation to the commercial offers called A2A Click, Extra2A and Prezzo Chiaro A2A, requesting that, within the scope of any advertising communication, all the price components and other charges be indicated, in particular where said components are fixed at the discretion of the supplier. At the same time, for similar (and in some cases additional) reasons, AGCM initiated 13 investigative procedures against the same number of suppliers operating in the free market, who in 11 cases closed the procedures with the adoption of commitments, whilst another 2 sellers were fined.

In particular, AGCM considered that in the communications of the offers the existence of marketing costs was not made sufficiently clear, even though they were indicated in the contractual documentation. According to the preliminary assessments of the AGCM, in fact, the lack of transparency of these elements could have misled the consumer who must have, from the very first promotional presentation, all the information needed to reliably predict the amount of the overall monthly and/or annual expense to be incurred.

In order to achieve a prompt closure of the procedure, A2A Energia S.p.A. has deemed it appropriate to make certain changes to the promotional communications relating to its supply offers, such as to make the amount of the price components discretionally defined by the seller and, in particular, the marketing charges, relating to each offer more evident. A2A Energia S.p.A. has also undertaken to apply the same changes on the new website, which is scheduled to be launched in March 2022.
In view of the commitments proposed, the AGCM found that the possible unfairness of the commercial practice had ceased to exist and therefore, on November 26, 2021, it decided to close the proceedings.

4.3 Waste Business Unit

Waste Pricing Method for the first regulatory period 2018-2021 (MTR)

ARERA Resolution 443/2019/R/rif approved the Tariff Method for the Integrated Waste Management Service (MTR), defining *"the criteria for the recognition of efficient operating and investment costs for the period 2018-2021"*. The measure applies to the tariff revenues for 2020/2021, compatibly with the time frame envisaged for the approval of the TARI by the Municipal Councils, the deadline of which, with reference to TARI 2021, has been extended to July 31, 2021 as a result of Decree Law no. 99/2021 (Enterprise and Works Decree).

MTR requires costs recognized to Operators of the municipal sanitation service to be determined starting from the actual costs recognized in the reference year (a-2) resulting from obligatory accounting sources[6] and those relating to integrated waste management, which includes the following activities:
- sweeping and street cleaning,
- collection and transport,
- treatment and recovery of urban waste,
- treatment and disposal of urban waste,
- tariff management and relations with users.

Other activities, such as deratization, snow clearance, mosquito pest control, garden or graffiti cleaning, etc., are considered external to the integrated urban waste cycle and not subject to regulation. The costs of treatment and disposal were defined on a transitional basis as is pending the setting of criteria for the determination of tariffs for access to facilities with effect from January 1, 2022 (ref. MTR-2 for the period 2022-2025).

MTR is based on the principle of full cost recovery and establishes that tariff revenues can grow year on year through the application of the price cap within a certain maximum limit of increase. The entities territorially competent (ETC - in Lombardy the Municipalities) may submit to the ARERA a request for the exceeding of this limit, if they deem it necessary to ensure the achievement of expected quality improvements or to support the integration process of the activities managed. Below are the main features of the new method:
- RAB-based with recognition of operating costs, amortization and return on invested capital (WACC at 6.3%, plus 1% for investments after December 31, 2017 related to the regulatory lag);
- it is permitted to include in the tariff forecast costs not yet finalized, without prejudice to subsequent verification mechanisms (COI component);
- sharing of revenues from the sale of materials and energy in a range between 40%-70%, which allows Operators to retain a portion of the income, also depending on the quality of differentiation conferred. The percentage of sharing must be established by the entity territorially competent (ETC);
- adjustments over the years 2018 and 2019, calculated on the basis of the difference between the costs provided for in the 2018 and 2019 PEF and the actual costs in 2017 inflated, to be applied according to gradual mechanisms on the basis of management efficiency indicators taking into account the evaluations of the entity territorially competent (ETC).

The approval procedure provides for the transmission of the PEF (so-called raw PEF) by the Manager to the entity territorially competent (ETC) which, after checking the correctness, completeness and congruity of the data, sends it, together with the tariff fees, to ARERA for approval.

In the first half of 2021, the municipal sanitation companies of the A2A Group prepared their "raw" 2021 PEFs for each individual concession in accordance with the new ARERA methodology. The final 2021 PEFs, integrated by the municipalities with the costs for which they are responsible (i.e. billing activities and management of relations with users) were subsequently verified and validated by the ETCs.

All the Group companies, which manage around 300 municipalities in Lombardy, have sent the relevant documentation to the respective ETC for approval of the 2021 TARI and the underlying PEF. In most cases, in continuity with 2020 and in the presence of assignments obtained after competitive tendering procedures, ETC availed itself of article 4.5 of the MTR, preserving any efficiencies and thus applying the value envisaged by the previous contracts - if lower than the maximum value of the MTR - subject to compliance with the economic-financial balance of operations.

6 The method is in continuity with Presidential Decree no. 158/99 of April 27, but provides for the use of obligatory accounting sources for the preparation of the PEF and not forecast costs.

With regard to the Municipality of Varese, the ETC approved the 2020 and 2021 PEFs at lower values than the raw PEFs submitted by ACSM-AGAM Ambiente S.r.l.. Both board resolutions were challenged by the Company before the Lombardy Regional Administrative Court, requesting payment of the higher amounts due as consideration for the municipal sanitation service provided to the Municipality of Varese in the two years in question (approximately 541,000 euro and 355,000 euro, respectively). Both PEFs as reformulated by the ETC would not guarantee economic financial balance for the Manager. The Regional Administrative Court, in the precautionary session of January 13, 2021, found the potential existence of pecuniary damages, the amount of which will be determined during the proceedings. The date of the hearing on the merits of the two joined proceedings has not yet been set.

At December 31, 2021, ARERA published the following resolutions approving the 2020 PEF for the municipalities managed by the Group companies, confirming overall the maximum economic values of the tariff revenues proposed by the ETC in their respective municipal resolutions and with no significant deviations from the amounts provided for in the previous contracts, with the exception of the Municipality of Bergamo, managed by Aprica S.p.A., for which an increase of approximately 300,000 euro was recorded when applying MTR.

Municipality	ARERA Resolution	Operator	Tariff revenue value 2020
Paderno Dugnano	369/2020/R/rif	RTI made up of AMSA S.p.A. and ECONORD S.r.l. Municipality of Paderno Dugnano	€ 5,963,484
Cremona	397/2020/R/rif	Linea Gestioni S.r.l. Municipality of Cremona	€ 10,333,852
Milano	476/2020/R/rif	Amsa S.p.A. Municipality of Milan	€ 298,617,329
Lodi	6/2021/R/rif	Linea Gestioni S.r.l. Municipality of Lodi	€ 7,617,815
Brescia	34/2021/R/rif	Aprica S.p.A. Municipality of Brescia	€ 34,340,730
Bergamo	56/2021/R/rif	Aprica S.p.A. Municipality of Bergamo	€ 19,198,125

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

Resolution 363/2021/R/rif defined the criteria for recognition of the efficient operating costs for the regulatory period 2022-2025 (MTR-2), confirming the general approach that distinguished the first method and establishing the criteria for defining the access tariffs to the undifferentiated and OFMSW treatment plants.

With reference to municipal sanitation, ARERA introduces some new elements mainly attributable to the need to:

- envisage a multi-year economic and financial plan with the possibility of spreading the extra cap costs over the regulatory period and, for balances, even beyond 2025;
- strengthen incentives for the development of activities for the valorization of recovered materials and/or energy;
- configure appropriate corrective mechanisms in light of the regulatory changes introduced by Legislative Decree no. 116/2020;
- take into account the objectives of compliance with the obligations and quality standards that will be introduced by the Authority as from 2023, and the simultaneous need to guarantee coverage of the additional costs attributable to them.

With regard to treatment, ARERA introduces an asymmetric tariff regulation, to be determined taking into account regional governance, the degree of integration of the operator and the location of the plant with respect to the waste hierarchy. In particular, the Authority has established, as a prerequisite for the identification of regulated tariff plants - so-called “minimum” plants - the presence of a rigid market with a strong and stable excess of demand, in addition to the following alternative conditions: i) having committed capacity for flows guaranteed by sector scheduling; ii) having been identified as “minimum” during scheduling by the competent parties.

The identification of regulated plants must be carried out as part of the ETC scheduling activities (in Lombardy by the Regional Government) "in time for the determination of tariff revenues", the transmission of which to ARERA is expected by April 30, 2022. For plants that are not subject to tariff regulation, so-called "additional", on the other hand, publication of the "main criteria on which the fees are based" is envisaged on the Manager's website.

The Lombardy Region, with Council Resolution no. 5777/2021 of December 21, 2021 complied with the provisions of article 6 of Resolution 363/2021/R/rif, declaring all the undifferentiated and OFMSW treatment plants as "additional", taking into account that Lombardy is not in market conditions with structural rigidity either for the entire municipal waste chain or for OFMSW and is, on the contrary, characterized by plant self-sufficiency and competitive gate prices. The Region has, therefore, strengthened the monitoring obligations of plant operators, reserving the possibility of revising this provision during the biennial updating of tariffs following any changes in market conditions and the adoption of the National Waste Management Plan.

With reference to the treatment plants located in Piedmont, we are waiting for the Regional Council Resolution implementing the provisions of article 6 of Resolution 363/2021/R/ref.

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

Resolution 15/2022/R/rif approved the "Consolidated text for the regulation of the quality of the urban waste management service" (TQRIF), with the introduction from January 1, 2023 of 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 guaranteed to users, determined by the ETC on the basis of the services provided for in the Service Contract(s) and/or in the Quality Charter(s) in force.

The set of obligations and quality standards introduced by Resolution 15/2022/R/rif is broken down as follows:

- contractual quality: a) Management of requests for activation, change and termination of service; b) Management of complaints, requests for information and correction of amounts charged; c) Points of contact with the user; d) Methods and frequency of payment, installments and refunds of amounts not due; e) Collection of waste on call; f) Disruption and repair of equipment for home collection;
- technical quality: a) Continuity and regularity of service; b) Security service.

By March 31, 2022, 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 by the TQRIF in the PEF 2022-2025. Furthermore, ETCs may, on the basis of a justified proposal by the Managers, define any qualitative standards that improve or go beyond those laid down in the TQRIF.

		Provision of obligations and control instruments for technical quality (continuity, regularity and security of the service)	
		Technical quality = NO	Technical quality = YES
Provision of contract quality obligations	Quality contractual = NO	SCHEME 1 Minimum quality level	SCHEME 3 Intermediate quality level
	Quality contractual = YES	SCHEME 2 Intermediate quality level	SCHEME 4 Advanced quality level

The Resolution also introduces the obligation to adopt a single "Quality Charter for the integrated municipal waste management service" in accordance with the provisions of the TQRIF for each award, indicating the reference regulatory scheme, the service obligations, the indicators and related contractual and technical quality standards provided for by the Authority, as well as the additional or improved standards provided for by the ETC.

Finally, the Managers are required to report - through the preparation of an electronic performance register - and communicate the data relating to the quality indicators to the Authority and the ETC, as well as publishing the following information on their website: the positioning of management within the matrix of regulatory schemes, the quality standards for which they are responsible and the results achieved in terms of compliance with these standards (from 2024), the average tariff applied to households for the integrated municipal waste management service, the breakdown of the fees applied to households and non-household users. The Authority may also proceed to publish the aforementioned information with a view to said regulation.

EU Circular Economy Package

On June 14, 2018, the EU Circular Economy Package was published consisting of:
- 4 Waste Directives (Directive 2018/849 on end-of-life vehicles/waste batteries/WEEE, Directive 2018/850 on landfills, Directive 2018/851 on waste, Directive 2018/852 on packaging);
- 1 Regulation on the approval and market surveillance of vehicles.

The measures are aimed at promoting the application of the waste hierarchy (prevention, reuse, recycling, energy recovery, landfill) also through appropriate legislative and financial instruments, and in this context, some common objectives are set for the European Union:
- recycling of at least 55% of municipal waste by 2025. This portion is destined to rise to 60% by 2030 and to 65% by 2035;
- recycling of 65% of packaging waste by 2025 (70% by 2030) with material-specific targets.

The Directives also introduced the obligation to collect organic waste separately or ensure recycling from the end of 2023 and set a binding target of reducing landfill disposal: Member States will have to ensure that recyclable waste is no longer transferred to landfills in 2030 and that as of 2035, the total portion of municipal waste destined for landfills does not exceed 10%.

Central to the application of the waste hierarchy is the strengthening of Extended Producer Responsibility (EPR), by means of which producers are called upon to participate in the organizational and financial management of the life cycle phase in which the product becomes waste, contributing at least to 80% of the costs of collection, recovery and disposal of packaging placed on the market.
Among the main acts transposing the Directives, particular mention should be made of the following:
- Legislative Decree September 3, 2020, no. 116, on "Implementation of Directive (EU) 2018/851 amending Directive 2008/98/EC on waste and implementation of Directive (EU) 2018/852 amending Directive 1994/62/EC on packaging and packaging waste";
- Legislative Decree September 3, 2020, no. 121, on "Implementation of Directive (EU) 2018/850, amending Directive 1999/31/EC on waste landfills".

Biomethane production incentive framework

The current biomethane incentive framework is regulated by the MiSE MD March 2, 2018 (so-called MD 2018) that provides for the recognition of a premium in the form of Consumption Input Certificates (CICs) for producers who feed biomethane into the grid exclusively for the transportation sector. For producers of biomethane and advanced biofuels (including those derived from OFMSW) there is a mechanism for withdrawal by the GSE of both the CICs due (with a fixed value of 375 €/CIC for 10 years) and the production of biomethane.

As provided for in Legislative Decree 199/2021, expected in the first half of 2022 is a MiTE MD regarding the incentive of biomethane that will extend its use not only to the transport sector but also to other sectors (industrial, residential, tertiary and agriculture). From the draft MD circulated in November 2021, it emerged that the new support mechanism will be characterized by incentivizable quotas and competitive procedures referenced from the MDs of incentives for renewable electricity sources: the subject of the auctions will be a contract for two-way differences that will consider the difference between the tariff as a result of competitive procedures and the average monthly price of methane (including the value of the guarantee of origin). The projects that win the competitive procedures will also receive a capital contribution which, depending on the technology, may reach up to 40% of the eligible costs (relating to the expenses for the construction of the plants), thus also allocating the resources earmarked by the PNRR for the development of biomethane plants.

This new tool aims, firstly, to encourage the conversion of existing agricultural biogas plants and, secondly, the creation of new capacity always from agricultural matrix. On the other hand, new plants fuelled by OFMSW appear to be heavily penalized, for which the incentive tariff has been significantly reduced compared to that provided for in the previous MD 2018.

At the end of 2021, for the A2A Group, two plants for the production of biomethane from OFMSW are in the pre-qualification phase at the GSE, which will come into operation in 2022 and will be able to access the CIC incentive mechanism provided for by the 2018 Ministerial Decree (which will be valid until the end of 2022).

Legislative Decree September 3, 2020, no. 116, implementing Directive (EU) 2018/851 amending Directive 2008/98/EC on waste and implementing Directive (EU) 2018/852 amending Directive 1994/62/EC on packaging and packaging waste

In Italy, Legislative Decree 116/2020 implements two Directives of the EU Circular Economy Package, substantially amending part IV of Legislative Decree 152/2006 (TUA), in particular:
- Title I Waste management - Chapter I General provisions
- Title I Waste management - Chapter III Integrated waste management service
- Title II - Packaging management
- Title VI Penalty system and final provisions - Chapter I Penalties

The measure brought forward to December 31, 2021 the obligation to separately collect organic waste or ensure its recycling.

The amendments made effectively eliminate the category of "assimilated waste", referring to the domestic perimeter both the flows in the municipal waste categories (specified in article 183, paragraph 1, letter b-ter of the TUA) and the "waste similar in nature and composition" based on the type (Annex L-quater of the TUA) and the activities (Annex L-quinquies of the TUA) that generate them. The achievement of the recovery obligations introduced by the Directive is calculated on the basis of these flows.

This intervention, which could contribute to overcoming the lack of homogeneity in the definition of urban flows among the various territorial areas, seems however to require further operational clarification regarding categories that cannot be univocally classified (e.g. waste from construction and demolition, from canteens and offices located in industrial buildings) and a possible integration of the current perimeter of municipal privatisations.

Special waste is instead listed in article 184, paragraph 3, of the TUA and, in continuity with the past, also include waste from recovery and disposal activities. A number of definitions relevant to the activities carried out by the company have also changed, including "waste management", "recovery of material", "temporary storage prior to collection", and the legal provisions relating to temporary storage, classification, and criteria for admissibility of waste in landfills have been amended.

A revision of the regulations on waste traceability is also planned, with the advent of the RENTRI. The new traceability system will be integrated into the National Electronic Register established following the conversion of Law Decree no. 135/2018 and will be managed by the National Register of Environmental Managers.

Furthermore, the extended producer responsibility (EPR) is carefully regulated, reinforcing the institution (one of the cardinal principles of the reform) and with a view to progressively opening up consortium systems to competition. Under the new provisions, the EPR systems will have to cover at least 80% of the total cost of managing the waste released for consumption, without prejudice to the definition, after consulting ARERA and therefore in line with the MTR, of the permissible "efficient cost" level.

At last, Legislative Decree 116/2020 entrusted the Ministry of Environment, aided by the technical support of ISPRA, with the definition of a "National Waste Management Programme" that defines the criteria and strategic guidelines to be followed by the Regions and Autonomous Provinces in drawing up regional waste management plans. The programme should indicate the recovery and disposal requirements to be met. A measure that will reduce the power of local authorities, with the regions that for their part will be able to define agreements for "the identification of macro areas" that allow "the rationalization of plants in terms of localization, environment and economic, based on the principle of proximity".

Legislative Decree September 3, 2020, no. 121, implementing Directive (EU) 2018/850, amending Directive 1999/31/EC on waste landfills

Legislative Decree 121/2020 implements another of the Directives of the EU Circular Economy Package and introduces new organic regulations on the landfilling of waste, making amendments to Legislative Decree January 13, 2003, no. 36 on topics such as:

- landfill acceptance criteria for certain classes of waste;
- basic characterisation and acceptance procedures, including arrangements for on-site verification and waste sampling and analysis;
- construction and management criteria for landfill facilities.

The decree provides for a gradual reduction in the amount of waste sent to landfills (no more than 10% by weight of municipal waste by 2035) and introduces a ban on the landfilling of separately collected waste intended for recycling or preparation for reuse.

The landfilling of all waste suitable for recycling or other recovery, in particular municipal waste, will also be banned from 2030, except for waste for which landfilling produces the best environmental outcome.

Law April 22, 2021, no. 53

Delegation to the Government for the transposition of European directives and the implementation of other acts of the European Union, European Delegation Law 2019-2020.

The law provides the delegations to the Government in order to implement the directives issued by the EU Parliament and the EU Commission. With regard to the environment sector, of potential interest is the delegation to the Government for the implementation of EU Directive 2018/2001, on the promotion of the use of energy from renewable sources.

Certain guidelines will have to be followed in the implementation, among which:

- update, enhance and introduce support mechanisms for the production of biomethane, advanced biofuels, fuels derived from recycled carbon and hydrogen, in order to effectively contribute to the decarbonization of all forms of transport, depending on the life-cycle emissions of energy carriers and the vehicles that use them;
- provide for measures to facilitate the maximum use of energy that can be produced from renewable sources, including by encouraging the spread and use of energy storage systems, including electric vehicles, also through a simplified authorization process, and the related research and development requirements, taking into account the principle of technological neutrality.

Decree Law May 31, 2021, no. 77

Governance of the National Recovery and Resilience Plan and initial measures to strengthen administrative structures and speed up and streamline procedures.

The Decree Law under analysis is an act that aims to speed up the implementation of the works envisaged in the National Recovery and Resilience Plan (PNRR) by strengthening administrative structures and streamlining procedures.

This regulatory act has a potential effect on the activities of the entire Waste Business Unit, in the areas of environmental impact assessment (EIA) and environmental permits, renewable energy plants, waste management and reclamation of contaminated sites. Given its nature as Decree Law, it needs to be converted into law by July 31, 2021.

Law no. 108 of July 29, 2021

Conversion into law, with amendments, of Decree Law no. 77 of May 31, 2021, on the governance of the National Recovery and Resilience Plan and initial measures to strengthen administrative structures and accelerate and streamline procedures.

The act converts Decree Law no. 77 of May 31, 2021, into law, definitively introducing regulatory simplifications in favor of economic recovery.

The main topics of interest for the Waste Business Unit facilities include:
- authorizations of renewable energy plants, including those for the production of biomethane;
- simplification of procedures regarding waste disposal and recovery facilities and end-of-waste;
- clarifications and simplifications with regard to the responsibility of the waste producer, eliminating the need for a certificate of disposal for waste sent to intermediate operations.

Legislative Decree Government no. 199 of November 8, 2021

Implementation of Directive (EU) 2018/2001 of the European Parliament and of the Council of December 11, 2018 on the promotion of the use of energy from renewable sources.

The aim of this decree is to accelerate Italy's sustainable growth path, laying down provisions on energy from renewable sources, in line with the European objectives of decarbonization of the energy system by 2030 and complete decarbonization by 2050. In addition, regulations are introduced with respect to energy efficiency.

4.4 Smart Infrastructures Business Unit

Starting in 2022, update WACC for infrastructure services in the electricity and gas sectors

Resolution 614/2021/R/com defined the criteria for updating the WACC for infrastructure services in the electricity and gas sectors during the period 2022-2027 (TIWACC 2022-2027). This measure follows an intense consultation phase (DCO 308/2021/R/com and 488/2021/R/com), specific data collection by ARERA to assess the cost of business debt and discussions with operators and trade associations.

The main characteristics of the regulatory mechanisms in place are confirmed (real pre-tax WACC, regulatory period of 6 years divided into two three-year sub-periods, calculation formula based on the Capital Asset Pricing Model). However, significant innovations are introduced in the methods for both updating and definition of the individual elements that make it up:

i. trigger mechanism in the first three years: annual update, should there be a change in the WACC, for at least one service, equal to or greater than 50 bps compared with the value in force, considering certain specific market parameters (ref. nominal Risk Free parameters, isr inflation incorporated in the Risk Free, SPREAD and iBoxx BBB index). In this case, the WACC value would be updated for all services;
ii. ke (cost of equity): elimination of the currently existing floor (0.5%) for risk-free assets and the introduction of corrective measures aimed at intercepting actual market conditions (CP - Convenience Premium; FP - Forward Premium and UP - Uncertainty Premium) with a forward-looking and financial approach;
iii. kd (cost of debt capital): a shift was made from industry benchmarks (i.e., collection and analysis of the actual cost of debt of Italian operators) to market benchmarks (i.e., iBoxx indices representing the yield of bonds issued by BBB-rated companies), including a weighting between the cost of existing debt (85%) and that of new debt (15%). A gradual mechanism was also introduced, whereby the new method of calculating Kd is given a weight of 33.3% in the first three-year period 2022-2024 and 66.6% in the second three-year period 2025-2027.
iv. decrease in the cost recognized to cover taxation, by reducing the tax parameter T from the current 31% to 29.5%.

The Authority confirmed the gearing values while for the βasset (parameter that measures the riskiness of the specific sector), it introduced an extraordinary update in force in the three-year period 2022-2024 for services that currently have a value lower than 0.4.
In conclusion, the reduction in the WACC for the electricity and gas infrastructure sectors of interest to the A2A Group was -0.7% with a negative impact of around -16 million euro.

	WACC 2022						WACC 2021
	βasset coefficient	Weight of equity and debt capital (Gearing)	Rate of return on equity (Ke)	Rate of return on debt capital (Kd)	Correction factor (F)	Rate of return on invested capital (WACC)	Rate of return on invested capital (WACC)
Electricity transmission	0.370	0.50	5.08%		0.41%	5.0%	5.6%
Electricity distribution and metering	0.400	0.50	5.39%		0.41%	5.2%	5.9%
Storage	0.506	0.50	6.49%	1.86%	0.41%	6.0%	6.7%
Regasification	0.524	0.50	6.67%		0.41%	6.1%	6.8%
Gas transport	0.384	0.50	5.23%		0.41%	5.1%	5.7%
Gas distribution and metering	0.439	0.44	5.40%		0.45%	5.6%	6.3%

New tariff regulation criteria based on total expenditure (ROSS base)

Resolution no. 271/2021/R/com initiated a procedure aimed at defining a new method for calculating recognized costs that goes beyond the current hybrid approach of rate of return for capital costs and price cap for operating costs, adopting one based on total expenditure, i.e. considering both operating and capital costs together. The process for adopting the new approach (defined as Regulation by Expenditure and Service Objectives - ROSS) must be completed by December 31, 2022 and has the following main objectives:

- realignment of efficiency incentives so that they extend to total efficiency and are no longer limited to operating costs;
- use of capitalization rates set by the regulator, differentiated for each service, to be applied to the total recognized expenditure so as to determine both the recognized capital expenditure (which increases the invested capital) and the recognized operating costs;
- provision of mechanisms to monitor returns on investment in order to assess the extent to which actual returns achieved deviate from those determined by the regulator;
- homogenize the criteria for regulating various infrastructure services, avoiding misalignments in returns on invested capital caused by differences in the treatment of specific operating and capital cost items. In this context, the profiles relating to the definition of the length of the regulatory period will be assessed, taking into account the overlaps between the specific periods of each service and the WACC regulatory periods.

ARERA, as part of the procedure initiated with the above Resolution, at the end of December published DCO 615/2021/R/com.

2020 final and 2021 provisional reference tariffs for the distribution and metering of natural gas

Resolution 122/2021/R/gas approved the 2021 provisional reference tariffs for natural gas distribution and metering activities, while Resolution 117/2021/R/gas approved the 2020 final reference tariffs.

Resolution 559/2021/R/gas which, among other things, has determined the Amounts for the Recovery of the Lost Depreciation of the mechanical meters decommissioned and replaced with electronic meters (IRMA, see below), redetermined the reference tariffs from 2015 to 2020.

RAB GAS value underlying 2021 provisional reference tariffs millions of euro	Unareti (*)	ASVT	LD Reti	RetiPiù	ACSM-AGAM Group (**)	Total
Cap. Centralized	47	1	11	12	11	82
RAB Distribution	791	11	166	126	166	1,260
RAB Metering	137	1	27	36	27	228
Total	**975**	**13**	**204**	**174**	**204**	**1,570**

(*) The RAB of Unareti S.p.A. is net of the locations transferred to RetiPiù S.r.l. from November 1, 2020 (56, falling within the Bergamo 1, 2, 3, 5 and Milan 4 ATEMs) and of those transferred to Italgas S.p.A. from February 1, 2020 (7, falling within the Alessandria 4 ATEM).
(**) Includes Lereti S.p.A., Serenissima Gas 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.

As of 2018, the DCVER component to cover the operating costs related to metrological testing has been zeroed, as these costs will be recognized on the basis of a methodology that will consider the net costs actually incurred as reported in the separate annual accounts and calculated according to criteria defined by the Authority. As of 2020, the Authority provided for a specific advance payment mechanism with a subsequent balance to cover these costs.

Similarly, operating and capital costs not already covered by tariffs relating to remote management/remote metering and concentrators of electronic gas meters will continue to be recognized on an ex post basis until 2022, within a decreasing annual limit (2020: 4.24 euro/PdRsmart; 2021: 3.74 euro/PdRsmart; 2022: 3.24 euro/PdRsmart) and net of a flat-rate deduction for the portion of remote metering/remote management operating costs already included in the reference tariff of metering (as of 2020 0.53 €/PdR). With Resolution 413/2021/R/gas, the amounts relating to 2019 were recognized, amounting to a total of approximately 3.6 million euro. In December 2021, the collection of requests for cost recognition for the year 2020 began.

Resolution 596/2020/R/gas determined the mandatory tariffs for end customers of gas distribution and metering services for 2021, valuing for the first time the VR and ST tariff components linked to the competitive procedures for the assignment of the natural gas distribution service, as well as the CE component applicable only in the new "Sardinia" tariff macro-area and intended to align the costs of the service for users there with those on the mainland. Regarding mandatory tariffs, the Authority, in light of the sharp increase in energy costs that characterized the second half of 2021 and government indications, has taken steps to significantly reduce the General System Charges borne by domestic and non-domestic customers, using funds made available by the government itself.

Determination of the Amounts for the Recovery of the Lost Depreciations of the mechanical meters decommissioned and replaced with electronic meters (so-called IRMA)

Resolution 559/2021/R/gas closed a lengthy procedure aimed at identifying the method of valuing IRMA, generated by a discrepancy in the useful lives used to calculate the residual depreciation of mechanical G4/G6 gauge meters decommissioned as they were replaced with electronic meters in compliance with the provisions dictated by the Authority.

Following DCO 545/2020/R/gas, ARERA adopted Resolution 287/2021/R/gas and subsequently, Determination 3/2021 DIEU was issued establishing:

- that the disposals of traditional meters replaced by electronic ones should be represented in the RAB GAS tariff collections using the FIFO method applied to gross historical values and that, as a result, it would be necessary to re-acquire the 2014-2019 disposals data previously reported so as to ensure the uniformity of application of this criterion among operators;
- the technical modalities, the re-acquisition of data and the formulas for calculating IRMA on the entire fleet of G4/G6 mechanical meters existing as of December 31, 2019 and for meters decommissioned in the period 2014-2019.

As a result of the specific data collection for the re-acquisition of the 2014-2019 disposals, the IRMA recognized to the A2A Group's distributors amounted to approximately 6 million euro and will be paid in 5 installments included in the final allowed revenues for the years 2020 to 2024.

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

Resolution 570/2019/R/gas approved the RTDG 2020-2025, which defines the regulatory framework for gas distribution and metering service tariffs for the years 2020-2025 (5th regulatory period). Although the characteristics of the previous regulation are confirmed, the main amendments can be summarized as follows:

- operating costs recognized: update of operating costs recognized from 2020 using the average (50:50) between the actual costs of 2018 and the costs recognized in the same year as the basis of calculation. The update was carried out using the price cap method taking into account, in addition to the inflation, also an X-Factor differentiated by activity (distribution, marketing and metering) and, limited to distribution, operator size (large, medium, small). Compared to the previous period, there has been a considerable decrease in recognized operating costs and an increase in X-Factors relating to distribution and marketing, while the previous level is confirmed for metering;
- capital costs: revision of the β parameter in the calculation of the WACC of metering in order to align the recognized return with that in force for distribution (6.3% for 2020 and 2021). For calculating the invested capital subject to remuneration, as well as the related amortization, a specific mechanism is defined for the gradual release, over a long period of time that goes beyond the individual regulatory period, of the amount of contributions existing at December 31, 2011, which was not considered in defining tariffs.

Unareti S.p.A. challenged Resolution 570/2019/R/gas with the Regional Administrative Court highlighting the lack of investigation and the significant impact, unforeseen and not adequately justified, on the company's economic-financial balance. As part of the aforesaid appeal, on February 5, 2021, Unareti S.p.A. filed a request for verification, which was subsequently accepted by the Regional Administrative Court, which subsequently set March 30, 2022 as the deadline for verification activities.

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

Resolution 569/2019/R/gas approved the RQDG 2020-2025, which defines the regulatory framework regarding technical and commercial quality, of the gas distribution and metering service for the years 2020-2025 (5th regulatory period).

In general, the characteristics of the regulation in force were confirmed, including the bonus mechanisms for the incentive of security recoveries, for which the Authority, with Resolution no. 463/2020/R/gas, fixed the new levels and introduced some further refinements aimed at monitoring and stimulating the improvement of some specific aspects, such as the pressure and cathodic protection of the networks, the average residual life of the network (an element that has not yet been fully developed) and the timely elimination of dispersions within the timing established by the technical standards in force. As far as commercial quality is concerned, the only significant difference concerns the way in which the supply pressure check is carried out at the request of the user.

Resolution 596/2021/R/gas defined the premiums and penalties for security recoveries of the gas distribution service relating to 2018, recognizing a total of approximately 2.6 million euro to the distributors of the A2A Group (2.7 million euro in premiums and approximately 0.1 million euro in penalties).

Start of management of natural gas distribution service in the Milan 1 area

On December 16, 2021, Unareti S.p.A. signed the service contract for the management of the natural gas distribution and metering service in the Milan 1 - City and Plant area of Milan, following the award of the tender issued by the competent Contracting Authority (Municipality of Milan).

The management of the area, also for tariff purposes, will start from March 2022: starting from this date, the improved conditions offered by the Company during the tender will be applicable.

Tariff regulation for the natural gas transport and metering service 2020-2023

Resolution 114/2019/R/gas approved the rules applicable to natural gas transport tariffs for the period 2020-2023 (5th regulatory period - new RTTG). The main introductions are:

- definition of eligible revenues: the method adopted, similar to the previous one, provides for the calculation of eligible revenues as the sum of the (i) return on net invested capital (WACC 2021: 5.7%), (ii) portion of amortization (useful lives substantially unchanged) and (iii) operating costs (calculated from the individual operator's actual costs as presented in the 2017 separate annual accounts). For admission to the tariff recognition of investments relating to specific interventions on the transport network, the provisions of Annex A to Resolution 468/2018/R/gas and subsequent amendments and integrations are valid, as well as compliance with criteria of cost-effectiveness and efficiency in their implementation. Incentive mechanisms for infrastructure development are also foreseen;
- recognition of costs relating to network losses, self-consumption and gas not accounted for (GNC): the current method of recognition in kind of these items is exceeded, moving to monetary recognition based on the weighted average price of forward products with delivery to the PSV in the reference tariff year. In addition, Resolution 569/2020/R/gas introduced a mechanism for the partial adjustment of discrepancies between the quantities of GNC recognized and the actual quantities recorded in a given year;
- equalization mechanisms: in addition to the pre-existing mechanisms relating to the equalization of revenues relating to the regional network (between TSO and CSEA) and the variable unit fee (between TSO), a new monthly flow from transport companies other than Snam Rete Gas S.p.A. is introduced for the latter for the equalization of national network revenues relating to the revenues associated with the exit fees, aimed at transferring the share of revenues pertaining to the national network from the transport companies that collect the revenues deriving from the CPu.

The new RTTG has provided for a new way of managing the Corrective Factors (FC) of the eligible revenues, i.e. elements that ensure, annually and for each operator, equality between the eligible revenues and the revenues actually obtained from the application of the tariffs. Until 2019, these amounts were accrued in 4 annual installments where the amount for a single year was then subtracted directly from the allowable revenues for that year. Beginning in the Fifth Regulatory Period, accrual is eliminated and the management of these differences is assigned to CSEA in the year following the reporting year where allowable revenues are not netted by that amount.

Resolution 230/2021/R/gas approved the revenues recognised and the tariff fees for the activity of natural gas transport and metering for 2022, while those for 2021 had been approved by Resolution 180/2020/R/gas.

RAB value of Retragas S.r.l. underlying 2021 final tariffs and 2022 provisional tariffs millions of euro	2021 Final tariffs	2022 Provisional tariffs
RAB Transport	42.5	45.9
RAB Metering	0.8	1.6
Total RAB	**43.3**	**47.5**

Resolution 539/2020/R/gas, among other things, assessed the ten-year development plans for the natural gas transport network prepared by the operators for 2019 and 2020. With reference to the plan of Retragas S.r.l. aimed at the new methanization in the Autonomous Province of Trento, the Authority, in light of a number of critical points, considered it appropriate to continue evaluating it in future plans.

Finally, in view of the end of the current regulatory period and taking into account the timing required by European legislation, Resolution no. 617/2021/R/gas initiated the procedure for the formation of measures regarding rates and quality of the natural gas transport and metering service for the Sixth Regulatory Period (6PRT), starting from 2024, and which will have to take into account, among other things, the guidelines regarding "Regulation by Expenditure and Service Objectives - ROSS" (see specific paragraph).

Reorganization of gas metering activities at entry and exit points of the transport network

Resolution 512/2021/R/gas concludes the procedure aimed at reorganizing the activity of gas metering at the entry and exit points of the transport network, approving the new text containing the "Regulation of the metering service on the natural gas transport network (RMTG)", which defines the responsibilities and scope of metering and meter reading activities, minimum and optimal requirements of a plant, performance and maintenance nature, and quality levels.

The new regulation is aimed at increasing the responsibility of the various parties involved in the supply chain, defining their roles and introducing - as already provided for in many other cases - an articulated system of penalties and compensation imposed, against specific monitoring by the TSOs, on those responsible for metering activities (i.e. owners of the metering plant) and/or meter reading (TSOs to which the metering plant is connected) in order to provide them with an adequate price signal for non-compliance with certain service quality levels (in some cases, distinguished between minimum and optimal) and thus stimulating interventions aimed at adapting the metering plants, with consequent improvement of their performance, to guarantee higher quality metering data.

In the first part of 2022, a coordination activity between carriers will be started in order to proceed with the census of the measurement plants by mid-2022 and then start, from 2023, with the performance monitoring phase (and related reporting, also towards the Authority) and, from 2024, with the incentive system.

2020 final and 2021 provisional reference tariffs for the distribution and metering of electricity

Resolution 159/2021/R/eel approved the 2021 provisional reference tariffs for electricity distribution and metering service for companies serving more than 25,000 PODs, while Resolution 131/2021/R/eel approved the 2020 final reference tariffs for operators serving at least 25,000 PODs.

Following the publication by ARERA of the detailed elements relating to the definitive 2020 reference tariffs for distribution and metering services, as envisaged by Determination DIEU 12/2020, the values of the electricity RAB are reported.

RAB ELECTRICITY value underlying 2021 provisional tariffs millions of euro	Unareti (*)	LD Reti	RetiPiù	Reti Valtellina Valchiavenna	Total
RAB Distribution	604	53	22	14	693
RAB Metering	68	3	1	2	74
Total	**672**	**56**	**23**	**16**	**767**

(*) Unareti S.p.A.'s Measure RAB contains approximately 21 million euro of investments in 2G meters relating to 2020 pre-balance, which will be managed using the fixed installment method (i.e. Amortization and Remuneration Portion together and fixed for the entire useful life of the 2G assets and equal to 15 years), which, compared to the normal method of tariff recognition of investments, results in a different allocation of the recognition over time.

With regard to distributors up to 25,000 POD, Resolution 237/2018/R/eel defined the criteria for the recognition of operating and capital costs. In particular, tariffs for distribution activities are calculated using a parametric method, effective from 2018, which provides for the application of a graduation mechanism[7]. According to this methodology, the recognized opex and capex are set taking into account certain relevant quantities such as distributed energy and user density (opex) and, together with the above, the age of the networks (capex), while those for metering activities take into account a conventional profile for the installation of LV electronic meters, an average unit cost of 126 €/meter (2014 values) and an investment turnover factor set at 2% (to be applied from 2015). It should also be noted that Resolutions 104/2021/R/eel and 187/2021/R/eel approved, respectively, the reference tariffs for 2016 and 2017 for distributors serving fewer than 25,000 PODs.

Resolutions 564/2020/R/eel and 566/2020/R/eel set the obligation tariffs for the year 2021 for electricity distribution and metering services related to non-domestic and domestic customers respectively.

With regard to obligatory tariffs, the Authority, in application of the DL Sostegni and in full consistency with what was already done in 2020, with Resolution 124/2021/R/eel and subsequently with Resolution 279/2021/R/eel, modified, respectively, for the months of April - June and July 2021, for non-domestic customers connected to LV, the network tariffs and general system overheads acting on the fixed quotas and power quotas so as to determine savings. Subsequently, due to the sharp increase in energy costs that characterized the second part of 2021, the Authority, following the indications of the Government and using the funds made available by it to support consumers (in particular, low voltage users up to 16.5 kW), acted mainly on the general system charges borne by these end customers, in the first phase (July-September) reducing them significantly and, subsequently (October-December) reducing them to zero.

As of July 1, 2021, in order to remove obstacles to the dissemination of electric mobility, residential users with an installed capacity of up to 4.5 kW and wallboxes with certain characteristics may participate in the tariff experimentation mentioned in Resolution 541/2020/R/eel, which will enable them to withdraw up to 6 kW at night, without any additional cost to their bills.

Infra-period updating of tariff regulation of electricity transmission, distribution and metering services 2020-2023

Resolution 568/2019/R/eel approved the tariff regulation for electricity transmission, distribution and metering services for the 2020-2023 (NPR2) half-period and the related TIT, TIME and TIC[8] integrated texts. The measure, substantially in line with the criteria adopted in the first half-period 2016-2019 (NPR1), defines in particular:

- the initial levels, referring to 2020, of the cost recognized to cover operating costs, a profit sharing with symmetric distribution (50:50) between distribution companies and end users of any increased efficiencies achieved in the previous NPR1 and the productivity recovery rate (X-Factor) for the annual update. The new X-Factor applicable to electricity distribution activities is 1.3% (1.9% in the previous half-period), while the X-Factor applicable to metering activities is 0.7% (1% in the previous half-period);
- a mechanism for distributing net revenues from the joint use of electricity infrastructures for purposes other than those subject to tariff recognition (i.e., use by TELCO), which may be activated only if the amount is greater than 0.5% of the revenue allowed to cover the costs of the distribution service and managed under the equalization mechanisms already provided for by the regulation;
- incentives for aggregations between distribution companies, giving priority to smaller ones, with the possibility of using the instrument of the "Network Contract";

7 The graduation mechanism is based on the weighted average (weight of the parametric method equal to 10% in 2018; 20% in 2019; 30% in 2020; yet to be defined for the period 2021-2023) between the individual tariff scheme and the parametric one.
8 TIT (Provisions for transmission and distribution services), TIME (Provisions for the metering service), TIC (Economic Conditions for the connection service).

- a mechanism for the recovery of bad debts not otherwise recoverable relating to network tariffs access to which by distributors is subject to the fulfilment of specific conditions (refer to the specific paragraph);
- a revision of the tariff regulation for withdrawals and injections of reactive energy (refer to the specific paragraph).

Infra-period updating of quality regulation of electricity distribution and metering services (i.e. TIQE): 2020-2023

Resolution 566/2019/R/eel updated the TIQE for the regulatory half-period 2020-2023, introducing specific measures aimed at reducing service continuity gaps between the various areas of the country, through ad hoc regulatory instruments. In particular, a special voluntary regulation has been defined for the areas with the highest number of interruptions which envisages:

- the payment of a premium at the end of the period (2023), if the target level set by ARERA is reached and a penalty (equal to 1/3 of the premium) if it is not reached;
- the possibility of requesting to postpone the target year from 2023 to 2025, upon presentation by the distributor of a specific Technical Report proving the reasons in consideration of the presence of structural criticalities; if the request is accepted, the trends would be recalculated at the same time.

Resolution 431/2020/R/eel approved Unareti S.p.A.'s application to participate in the special regulation for the Milan area, with the recalculation of trends.

Moreover, with particular reference to the number and duration of interruptions, the Authority has also ordered the start of a regulation for experiments (regulatory sandbox), mutually exclusive with the special regulation, in areas identified by distributors. Without prejudice to the achievement of the target level set for 2023, the distributor has the opportunity to propose an improvement path different from that defined by the ordinary regulation, presenting innovative solutions from a technological point of view for the improvement of service quality. Also in this case it is foreseen to recalculate the trends, deactivated in the years of experimentation.

TIQE: Resilience Plans for the electrical network

Title 10 of the TIQE defines the scope of the electricity grid resilience obligations, the content and timing of the implementation of the action plan, and appropriate incentive mechanisms.

Determination 2/2017 DIEU approved the "Guidelines for the submission of Work Plans for the increase of the resilience of the electricity system - part one", while MiTE intervened with its own guidance document that required the concessionary distributors to integrate the development plans with a special section, analytical and subject to monitoring, dedicated to interventions for the increase of the resilience and robustness of the network.

Following this, Resolution 31/2018/R/eel: i) introduced the obligation for all the main distribution companies[9] to draw up, and periodically communicate to the Authority, resilience plans for at least three years and coordinated with Terna S.p.A. or with the reference distributor; ii) provided for a single reputational incentive mechanism consisting of the obligation to publish the resilience plan on the website by June 30 of each year.
In addition, Resolution 668/2018/R/eel defined a bonus/penalty type economic incentive for resilience enhancement interventions based on:

- specific criteria aimed at identifying which interventions can be considered eligible for the incentive mechanism;
- a method of calculating bonuses and penalties, respectively at a percentage share of the net benefit of the individual intervention carried out within the established time frame and of the net present value of the actual costs based on the extent of the delay.

In addition to the ceiling already in force for the total net premiums of each distributor, equal to 25% of the net present value of the sum of the expected costs of all interventions, Resolution 534/2019/R/eel established a maximum limit to the premium of a single intervention, making it equal to the cost of the same in order to avoid the recognition of over-remuneration higher than the cost of the intervention already covered in RAB. Finally, with reference to the methods and timing of payment of the premiums[10] and penalties, the TIQE (art. 79 quinquies.3) provides that, by December 31 of each year from 2020 to 2025, the Authority shall determine the premiums and penalties to be paid into the CSEA account

9 The "main distribution companies" are those with: i) more than 300,000 users; ii) more than 100,000 users; iii) less than 100,000 users directly connected to the National Transmission Grid.
10 Resolution 566/2019/R/eel subsequently established that premiums for increasing the resilience of distribution networks will be financed by the MV Users Fund.

"Quality of electrical services" relating to eligible interventions, with date of actual completion in the previous year. In this regard, it should be noted that Resolution 432/2020/R/com, following the COVID-19 epidemiological emergency, defined the postponement of one semester for the conclusion of only the interventions included in the 2019-21 Plan.

At the moment, the obligations to develop the resilience plans refer only to the aspect of the validity of distribution networks to mechanical stress (i.e. to specific critical risk factors such as floods, fall of out-of-band trees, ice sleeves and heat waves), while for that relating to the timeliness of the restoration of the supply, please refer to subsequent measures.

By June 30, 2021, Unareti S.p.A. sent ARERA the 2021 Development Plan within which the section dedicated to the 2021-2023 Resilience Plan has been prepared, which contains 21 new interventions for total investments of about 10 million euro. As a result of the examination of the above Plan, Resolution 537/2021/R/eel established for Unareti S.p.A. the payment of a net bonus of 1.23 million euro in light of the 14 interventions completed in 2020.
Pursuant to art. 79 septies.2 of the TIQE, LD Reti S.r.l. and RetiPiù S.r.l., although obliged from 2020 to publish the section dedicated to the Resilience Plan on their website, have opted for deferred participation in the rewards/penalties mechanism, which will therefore take effect from 2022.

Remediation of the old riser columns of the electricity distribution network in condominiums

Resolution 467/2019/R/eel defined an experimental three-year regulation, postponed by one semester following Resolution 432/2020/R/com (January 1, 2020 - June 30, 2023) on the modernization - with or without centralizing the meters - of the old riser columns of the electricity distribution network in condominiums, required of all distributors, regardless of their size in terms of POD served.
In order to overcome any reluctance on the part of condominiums to carry out such interventions, in addition to the definition of a "Model Contract", the Authority has provided an incentive mechanism whereby the distributor:

- will have to pay the condominium an amount to cover the costs incurred by the latter in relation to the demolition/restoration works (and possibly electrical works in the case of centralization) in an amount equal to the lesser of the amount actually spent and a parametric amount calculated on the basis of the number of users and the level of value of the building;
- this amount will be recognised under the tariff mechanisms[11], subject to completion by March 31, 2023[12] of the obligatory census of its old riser columns.

The COVID-19 pandemic and related restrictive measures have forced a postponement of the start of the inspection campaign due to the lack of safe access to private areas. Activities, therefore, kicked off in a massive way in early 2021.

Unareti S.p.A. will carry out most of the interventions in the Milan area, the most critical due to the higher number of "single users" connected to the network through a riser owned by the distributor: the following are estimated, in particular, 9,500 condominium buildings with pre-1970 risers, most of which are composed of a large number of buildings that leads to quantify the presence of about 23,500 buildings with old risers in service. In Brescia, however, approximately 1,900 condominiums are estimated for approximately 2,100 buildings concerned.

In terms of inspections, the company has also defined a general schedule that envisages approximately 550 inspections per month in Milan, and about 200 in Brescia, taking into account that the deadline set by ARERA for the conclusion of the census is March 31, 2023.

Regarding the modernizations, in 2021 contracts, were stipulated with 10 condominiums (all with centralized meters), of which 2 modernizations were completed and reported with total contributions paid equal to 90,800 euro, while there were 6 for which Unareti S.p.A. completed the works but is waiting for the finishing activities to be finalized by the condominium and the subsequent reporting. The latter will involve the disbursement of total contributions of 82,500 euro.

11 Resolution 566/2019/R/eel subsequently established that premiums for increasing the resilience of distribution networks will be financed by the MV Users Fund.
12 Resolution 566/2019/R/eel subsequently established that premiums for increasing the resilience of distribution networks will be financed by the MV Users Fund.

2G Smart Metering Systems for the metering of low voltage electrical energy and approval of PMS2 by Unareti S.p.A.

In view of the replacement of first-generation (1G) electricity meters that will have completed their regulatory useful life (15 years), Resolution 87/2016/R/eel established the functional requirements and specifications of LV electricity meters - version 2.0, as well as the performance levels of the related second-generation smart metering systems.

Resolution 646/2016/R/eel defines, for distributors > 100,000 PODs, the cost recognition methods, subsequently updated for the period 2020-2022 by Resolution 306/2019/R/eel.

The main applicable provisions can be summarized as follows:
- the presence of obligations relating to the start/conclusion of the massive phase of the replacement plan. In particular, for distributors >100,000 PODs, it is assumed that the massive phase will start by 2022 with the objective of replacing at least 90% of the existing meters by 2025. The obligations for distributors < 100,000 PODs were defined by the subsequent Resolution 106/2021/R/eel;
- obligation to prepare detailed plans for the commissioning and public consultation of a 2G smart metering system (PMS2), in the manner defined by the Authority;
- determination of a single threshold of 130 €/meter for the calculation of the maximum capital expenditure condition for admission of the plan to a fast track valuation;
- specific methods for recognizing investments in 2G smart meters, with the possibility of obtaining premiums or penalties based on the degree of consistency between the unit costs actually incurred and those agreed with the Authority. In addition, a maximum number of 2G meters of first installation is provided, recognizable in tariff for each year of the plan (Conventional Plan - PCO, defined according to the tariff profile for the installation of 1G meters). In this context, a corrective mechanism for the PCO has been introduced, which is modulated so as to anticipate from the end to the beginning of the period the tariff recognition of part of the total quantity of meters to be replaced;
- presence, starting from the 4th year of the plan, of a penalty mechanism in case of non-compliance with the performance levels set by Annex B to Resolution 87/2016/R/eel (% of readings collected within 24 hours and % of success of remote management operations within 4 hours). The annual penalty is based on the capital expenditure allowed for tariff recognition and the level of non-compliance. There is also provision for a penalizing mechanism in the event of non-compliance with the progress of the PMS2. There are, however, annual and multi-year ceilings on the penalties that may be imposed on the operator.

Finally, there are specific provisions for reporting both the capital and operating costs actually incurred in each year and the physical quantities of meters actually installed.

Pending the start of the replacement plans, the Authority has established the modalities for the recognition of investments in 1G meters for the years 2017-2020 (2018-2021 tariffs), limiting the recognized unit cost to 105% of the unit cost of 1G meters for the year 2015. Similarly, the method for the recognition of investments in 2G meters made outside the replacement plan and relating to "ordinary user management" (see TIME 2020-2023) was defined. The maximum recognizable gross investment value per 2G meter installed in the years 2018-2020 (2019-2021 tariffs) is equal to the sum of:
- 125% of the average unit cost incurred by the distribution company in 2015 for the supply of 1G meters of first installation;
- 105% of the gross investment per 1G meter, net of the average cost for the supply of installed meters, incurred in the same year 2015 (therefore equivalent to the cost of installation).

Following extensive discussions with the Authority's Offices, Resolution no. 278/2020/R/eel approved the 2G Plan proposed by Unareti S.p.A., which contains the replacement of around 1.3 million meters with a massive phase planned for the period 2020-2024 currently underway (the Brescia area was completed in 2021 and installation is now concerning the Milan area).

Resolution No. 106/2021/R/eel defines, for distributors serving fewer than 100,000 POD, the methods for recognizing the costs of 2G smart meters:
- mandatory installation from January 1, 2022 and mandatory commissioning by 2025 of at least 90% of the meters installed on LV active points at December 31, 2020;
- recognition of 2G investments based on an all-inclusive standard unit cost (fixed for the entire plan and equal to 145 euro) to be applied to the physical quantity of 2G meters put into service in the reference year, calculated considering a maximum limit to 2G meters put into service to replace 2G meters already installed. Existing invested capital at December 31, 2021 related to 1G systems will be recognized in the tariff until the end of its remaining life, while new 1G investments will not be recognized;

- penalty mechanisms similar to those defined for larger operators are envisaged (i.e., one-off penalties for failure to make progress with the massive roll-out and penalties for under-performance of the 2G smart metering system), albeit with much more simplified application systems.

Tariff regulation of withdrawals and injections of reactive energy

Resolution 568/2019/R/eel, as amended by the subsequent Resolution 395/2020/R/eel[13], intervened on the regulation of reactive energy flows on the networks, making significant changes. In particular, ARERA has defined minimum levels of the power factor for both withdrawals and reactive inputs, in excess of which penalties defined on the basis of specific unit fees must be paid, to be applied respectively to HV and HHV end customers and to distribution companies directly connected to the National Transmission Grid, as well as 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. In particular, the most novel element concerns the prohibition to feed reactive energy into the grid (imposed by the unit power factor constraint) in all periods of the day and the consequent application of penalties.

ARERA has, however, provided for the right, on the part of Terna S.p.A. and the distribution companies, to sign exceptions to the application of fees for excessive withdrawals and injections of reactive energy if such application determines criticalities in grid management.

Determination 02/2021 DIEU approved a program of preparatory actions for the implementation of the aforementioned regulation in order to acquire the elements necessary to define the subsequent measures, defining a precise timetable and assigning specific “tasks” to each party involved (Terna S.p.A. and the distribution companies directly connected to the NTG in high or very high voltage) specific reporting obligations towards ARERA.

In light of this and with a view to optimizing the investment plan to be implemented, Unareti S.p.A. started a technical discussion with Terna S.p.A. aimed at identifying the grid nodes on which to compensate the reactive energy injected/withdrawn for the areas of Milan and Brescia through the installation of power factor correction systems, also evaluating the adoption of an aggregative logic for primary substations with the same voltage level. These analyses took concrete form with the sending to ARERA, on October 31, of a “Joint Terna/Unareti report” containing the results of coordination activities for the planning of interventions aimed at voltage control and the management of reactive energy exchanges.

Following the process described above, at the end of November, DCO 515/2021/R/eel was published containing ARERA guidelines for completing tariff regulation of reactive energy, for which the final measure is expected during the first quarter of 2022.

Instruments to protect distributors’ credit: general system overheads and network overheads

Since 2016, as a result of the insolvencies accounted for by some sales companies and the litigation involving the Standard Network Code for the transport of electricity (i.e. CTTE) on the issue of financial guarantees to be presented to cover General System Overheads (GSO), ARERA has undertaken many initiatives aimed at strengthening the credit protection of distributors.

Resolution 50/2018/R/eel introduced a system for the compensation of GSO paid but not collected by distributors. The mechanism is financed by an Account set up at the CSEA, supplemented both by any amounts collected by distributors subsequent to the recognition of the amount for previous years, and by tariff revenues supplemented by the components covering the GSO. Unareti S.p.A., as for the previous years, adhered to this mechanism also for 2021 and requested the recognition of a total amount equal to approximately 2.3 million euro, which was paid in December 2021.

Resolution 461/2020/R/eel subsequently introduced a similar compensation mechanism for the non-collection of network overheads not otherwise recoverable relating to the period January 1, 2016 to December 31, 2019. Unareti S.p.A. has adhered to this mechanism and, by the deadline of June 30, 2021, requested the recovery of a net amount of approximately 800,000 euro recognized, following the required verifications, by CSEA in December 2021 net of the advance already paid in December 2020 (and equal to approximately 500,000 euro).

13 This Resolution moved by 1 year, i.e. to January 1, 2022, the entry into force of the provisions set forth in Resolution 568/2019/R/eel in light of the emergency from COVID-19. According to the guidelines reported by ARERA in DCO 515/2021/R/eel, this date should be further postponed to July 1, 2022.

Lastly, with Resolution 261/2020/R/eel, ARERA made urgent additions to the CTTE concerning the provision of guarantees and the handling of defaults, with the aim of strengthening the protection of distributors. In particular, limiting provisions have been introduced to the forms of credit rating and acceptable insurance sureties.

Energy efficiency certificates and tariff contribution recognized to distributors for fulfilment of the obligation

Energy Efficiency Certificates (TEE) or White Certificates (WC) are negotiable certificates issued by the GSE that certify the achievement of energy savings in final uses through the realization of energy efficiency interventions. The system was introduced by Ministerial Decrees July 20, 2004 as amended, and provides for electricity and natural gas distributors to reach annual quantitative targets for primary energy savings, expressed in tonnes of oil equivalent (TOE) saved. A TEE/WC is equivalent to 1 TOE.

Distributors can fulfil the obligation by directly realizing energy efficiency projects that entitle the issue of WC or by purchasing the certificates from other entities that generate them on the market (typically from Energy Service Companies – ESCO). The Authority defines the methods for determining and paying the tariff contribution to be paid to distributors and the revenue is collected through fees applied to electricity and gas bills.

The following table shows the energy saving targets defined by the MiSE MD May 21, 2021.

		Targets for electricity distributors(1)	Targets for gas distributors(1)	Minimum Target (2)	Period to compensate the residual obligatory portion(2)
		Millions of WC	Millions of WC	(%)	(no. years)
Ministerial Decree January 11, 2017	2020	3.17	3.92	60%	2
Ministerial Decree May 21, 2021	2020	1.27	1.57	60%	2
	2021	0.45	0.55	60%	2
	2022	0.75	0.93	60%	2
	2023	1.05	1.3	60%	2
	2024	1.08	1.34	60%	2

(1) Obliged entities: electricity and gas distributors with more than 50,000 final customers.
(2) Minimum target and compensation period: the obliged entity that achieves an obligation portion of less than 100% but still at least the minimum target set by the Ministerial Decree (60%) may offset the residual portion in the following two-year period (n+2) without incurring penalties.

MD May 21, 2021 amended MiSE MD January 11, 2017 (as updated by MD May 10, 2018), by providing:
- a significant reduction in 2020 obligations, the postponement of the 2020 obligation year deadline to July 16, 2021, and the definition of obligations for the 2021-2024 regulatory period;
- the establishment of a cap for the tariff contribution defined by ARERA, taking into account the trend of WC prices on the market and those recorded in bilateral trades;
- the issuance of WC to the overrun by the GSE to distributors that request it at a value equal to the difference between 260 €/WC and the value of the tariff contribution for the year of obligation, up to a maximum delta of 15 €/WC and setting a floor of 10 €/WC.

The obliged parties can request the WC to the overrun until the minimum obligation is reached and to cover the residual amounts of obligation expiring, provided they are already in possession of a WC amount of at least 20% of the minimum obligation on their ownership account. For the cancellation of these WC, the tariff contribution will not be recognized. Distributors can then redeem all or part of the amount paid for the purchase of WC from the GSE for delivery of WC generated by projects or bought on the market. The redemption takes place from the first WC and is possible only if the obliged party holds a number of WC exceeding the minimum obligation for the current obligation year, and within two years following the expiry of the obligation. However, it is not possible to proceed with the redemption in the same obligation year in which the WC were issued.

WC cancelled in lieu of the GSE ones are paid the current year's tariff contribution and the refund of the amount paid to the GSE is made through tariff contribution adjustment.

The new MD also introduces a system of incentives for savings through downward auction procedures, which were expected to be defined by a subsequent MiTE MD by December 31, 2021. Auctions will be for the economic value of the saved TEP - on a pay-as-bid basis - and may cover specific sectors and projects. This incentive system will be available to entities that support the investment for the implementation of the efficiency project.
Resolution 358/2021/R/efr defined the tariff contribution for the mandatory year 2020, setting it at 250 €/TEE while the additional fee was defined as 10 €/TEE (maximum applicable value).

Subsequently, ARERA, with Resolution 547/2021/R/efr determined an exceptional tariff contribution for the mandatory year 2020 equal to 7.26 €/TEE, recognizing the difficulties encountered by the obliged parties in the procurement of certificates on the market, due on the one hand, to the late introduction of the Ministerial Decree 2021 (published only in May 2021, and which provided for the reduction of obligations for the year 2020) and, on the other hand, to the continuing criticality relating to the issue of new TEE (also due to the continuation of the pandemic crisis). This last measure has enabled the distributors of the A2A Group to reduce their estimated losses by a total of around 1.8 million euro.

Determination DMRT/EFC/16/2021 defined the targets for the 2021 obligation year. The values for the companies of the A2A Group are shown in the table below and compared to the 2020 obligation year, there is a significant reduction in the obligations due to the reformulation of the targets introduced by the Ministerial Decree of May 21, 2021.

Obliged Party	TEE obligation 2020	TEE obligation 2021
Unareti S.p.A.	149,008	46,979
Lereti S.p.A.	26,187	10,449
LD Reti S.r.l.	32,497	12,411
RetiPiù S.r.l.	18,540	6,205
Total	**226,232**	**76,044**

Electric mobility

The Ministry of infrastructure and sustainable mobility is currently reviewing the PNIRE (National Infrastructure Plan for the Recharge of Electric Vehicles), which defines the guidelines for the development of recharging infrastructures (IdR) for electric vehicles in Italy.

Given the growing dissemination of electric vehicles (the PNIEC estimates 6 million by 2030) and the consequent increase in IdR, not only will the energy required for recharging increase, but these vehicles, through IdR, will be able to provide valuable services to the transmission grid and, in the medium to long term, to the distribution networks: the batteries, in fact, have the ability to quickly provide input/output services.

With reference to recharging in the private sector, Resolution 541/2020/R/eel provided for the possibility for domestic users (or other LV users) with contractually committed power between 2 kW and 4.5 kW, connected to a recharging system for electric vehicles, to withdraw up to 6 kW at night, on Sundays and on all public holidays, without additional fees related to the increase in power. This trial was granted for the period July 1, 2021 through December 31, 2023.

In April 2021, the Authority, through the publication of a clarification, officially provided for the possibility that, in the same real estate unit, POD intended for the recharging of electric vehicles may be installed in the name of third parties - such as CPO, Charging Point Operators - with respect to the owner of the main POD. Operators are therefore allowed to intercept several end customers through a single POD, exploiting the synergies and savings deriving therefrom (sharing of fixed components, synergies on maximum power and connection costs).

With the approval of Legislative Decree no. 199/2021, there are some changes regarding the installation of publicly accessible IdRs. In particular:

- some interventions have been introduced to simplify the authorization process;
- the possibility was introduced for municipalities to provide for the installation of at least one recharging point for every six electric vehicles registered;
- the provision was amended of DL of July 16, 2020 (so-called "Simplification Decree") relating to the definition of ad hoc tariffs for electric recharging by ARERA which, within six months of the coming into force of the above-mentioned Legislative Decree, will have to define tariff measures applicable to IdR accessible to the public in order to encourage the spread of electric vehicles. These measures may also provide for a discount on the components covering general system charges, on condition that they are compatible with EU regulations on state aid, are of a transitional nature and that the entire tariff benefit is passed on to the end customer.

The Ministerial Decree of the Ministry of Economic Development of August 25, 2021 concerning the *Granting of contributions for the installation of infrastructures for the recharging of electric vehicles carried out by individuals in the exercise of business, arts and professions, as well as by persons liable to corporate income tax (IRES)"* governs the granting and disbursement of capital contributions aimed at supporting the purchase and installation of IdR carried out by companies and professionals (i.e. amount of 90 million euro).
Finally, it should be noted that the PNRR has allocated resources for the installation of IdR accessible to the public for about 750 million euro, which will be allocated to the creation of about 20,000 ultra-fast charging points throughout the country: the allocation of these funds is expected to start from 2023.

Activities of ARERA in the regulation and control of the Integrated Water Service (SII)

Approval of the Water Tariff Method for the third regulatory period 2020-2023 (MTI-3)

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 (reduced compared to the maximum levels provided for in the previous regulatory period).

The subsequent Resolution 639/2021/R/idr defined the rules and procedures for the two-yearly update between 2022 and 2023: in particular, the component covering the cost of financial and tax expense fell to 4.8% (the previous value in force until 2021 was 5.24%).

As already introduced by Resolution 580/2019/R/idr remains confirmed. It had provided:

- modification of the recognition of financial charges on work in progress (LIC): excluding from recognition in the tariff LICs with balances that have remained unchanged for more than 4 years and application to LICs of a lower rate than for assets that have entered service and decreasing over time;
- the drafting, in addition to the Plan of Interventions, of a Plan for Strategic Works (POS) 2020-2027 containing the forecast of infrastructural interventions dedicated to complex works with a useful life greater than/equal to 20 years priority for the quality of service. The LIC of the works contained in the POS benefit from full (and not decreasing) tariff recognition;
- the modification of the regulatory useful lives, for assets that came into operation in 2020, dividing the assets between aqueduct, sewerage, purification and common activities and associating them with the relative macro-indicator of technical and commercial quality;
- the introduction of an incentive for the measures put in place by the Operator to make users more aware of their consumption and to encourage the procedures for limitation in case of default and selective disconnection of supply;
- the separation, in the calculation of the adjustments of the other water activities, the activities linked to energy and environmental sustainability objectives, for which the Manager is granted a sharing equal to 75% of the difference between revenues and costs incurred. The benefits of this "incentive" will apply in the tariffs 2022 (a+2);
- the application to ordinary LIC, for the years 2020 and 2021, of the rate recognized for fixed assets relating to strategic works.

In the Brescia area, the tariff proposals for the 2020-2023 period, approved by the EGA Board on December 29, 2020, were confirmed by the Provincial Council on March 2, 2021. For the two-year period 2020-2021, A2A Ciclo Idrico S.p.A. and Azienda Servizi Valtrompia S.p.A. applied tariff increases of 2% and 1.5% per annum respectively.

With regard to the Operator Lereti S.p.A. belonging to the ACSM-AGAM Group:

- in the Varese area, the proposed 2020-2023 aqueduct tariffs were approved by the Provincial Council on April 29, 2021 and are now being examined by ARERA for final approval. For 2021, the tariff increase is 8.4% per year;
- in the Como area, the 2012-2023 aqueduct tariff proposals were approved by the Provincial Council on March 9, 2021: for 2021, the tariff increase is 8.4% per year. On December 21, 2021, the Board of Directors of the EGA of Como resolved in favor of the company an amount equal to 15.3 million euro as "recognition of prior year items" with reference to the years 2010-2011, reserving the right to establish with a subsequent provision the methods of distribution and billing to users of this sum (given exclusively by the costs/revenues differential without application of inflation and financial charges). Regarding the "prior year items" relating to the period 2001-2009 and amounting to a further 24 million euro, also considering the outcome of the services conference with the municipalities involved (Como, Brunate, Cernobbio), the EGA Board of Directors declared itself not competent.

millions of euro	Constraint to Operator Revenues (VRG) 2021	RAB 2019 (net residual) underlying 2021 tariffs
A2A Ciclo Idrico S.p.A.	90.3	305.7
ASVT S.p.A.	9.6	20.1
Lereti S.p.A. - COMO	16.4	46.2
Lereti S.p.A. - VARESE	26.6	38.7

Appeals toward approvals of 2020-2023 tariff proposals

A2A Ciclo Idrico S.p.A. has lodged an appeal with the Brescia Regional Administrative Court (TAR) for the annulment of the MTI-3 tariff arrangement approved by the Provincial Council, contesting the scope of the costs (capital and operating) recognized in that not all of the municipalities managed by the company were included.

With regard to the Como area, the operator Lereti S.p.A. notified an appeal to the Regional Administrative Court (TAR) on March 23, 2021 due to the failure to complete the preliminary investigation into the so-called "prior year items". A similar appeal is being prepared against the resolution of the EGA Board of Directors of December 21, 2021, in order to obtain full recognition of all amounts due under the heading of "prior year items", including those for the period 2001-2009.

Integration of the contractual quality discipline of the SII (TIMSII)

Resolution 609/2021/R/idr updated the regulation of the measurement of the SII (TIMSII), providing for the introduction of protection obligations for users affected by problems of hidden losses (also taking into account the potential contribution that could derive from the use of new metering instruments equipped with water smart metering devices), the strengthening of provisions regarding the collection of metering data and remote reading, as well as the promotion of measures to allow the owners of residential units (so-called "indirect users" underlying condominium users) to have individual consumption data and information. Specifically, the measure established:

- from January 1, 2022: the introduction of "Metering service effectiveness" indicators, supplementing the M1 indicator of Resolution 917/2017/R/idr (RQTI) and the related obligation to monitor and report to the Authority;
- from January 1, 2023: the introduction of "specific standards" to strengthen the protection of users with regard to the metering service;
- from January 1, 2022: the definition of "hidden losses" as those water losses occurring downstream of the meter on user-responsibility plants. These are losses that are not surfaced and cannot be traced with the normal diligence required of the user to control its assets, and minimum user protections are in place nationally for such cases;
- by June 30, 2022: in order to increase awareness of consumption in the case of grouped (condominium) users, Managers are required to:
  - communicate to indirect users at least once a year, information on how to contact their Manager and the approved tariff structure (with indication of how to communicate the size of their household);
  - make available to the condominium user or the condominium administrator a calculation tool for the distribution of the single condominium bill on the basis of the property units and their consumption (actual or estimated);
  - formally request from the condominium administrator or the contact person of the grouped users the actual number of members of the household (exclusively in cases where the Manager has not been able to obtain the information even after a formal request, the residential household tariff shall be calculated on the basis of the standard per capita criterion);

- by December 31, 2023: the Manager is required to assign a unique, geolocated identification code to each user contracted.

Revision of the tariff structure applied to end users

In order to harmonize the tariff structure applied to end users throughout the national territory, ARERA Resolution 665/2017/R/idr approved the Integrated Text of Water Service Fees (TICSI) in force since January 1, 2018.
The TICSI introduces the concept of standard per-capita tariff and includes:

- the distinction between resident and non-resident, condominium and non-domestic users;
- the application to resident domestic users of a standard per-capita tariff for a transitional period (2018-2021) and, in any case, until the actual availability of information, defined on the basis of a typical family of 3 members (with the first facilitated bracket equal to 55 mc/year) and an actual per-capita tariff (facilitated bracket: at least 18.25 mc/year per member) only in the case of self-declaration regarding the number of members of the household;
- the regime tariff structure as from 2022 with the application of the effective per capita tariff to all resident domestic users;
- the rationalization of tariff types for uses other than domestic;
- the application of a trinomy tariff (fixed portion, capacity portion and variable portion) uniform at national level for industrial users related to discharges of waste water authorized to discharge into public sewers. This tariff is designed to intercept with the variable portion, quality in terms of pollution of the discharge, with the capacity portion, the correct allocation of the costs to use the treatment capacity of the plant destined to receive the discharges, and with the fixed portion, the coverage of administrative and metering costs;
- the assessment of the effects of the new tariff structure on the revenues of the Operator, providing for ex ante and ex post checks.

The tariff structure is adopted by the EGA on the basis of the data provided by the Operators and was to be submitted to the Authority by June 30, 2018.

- the Brescia EGA approved the new structure on February 13, 2020 and on July 31, defined the guidelines to be used for billing: each Area Operator must recalculate the annual payments for 2018, 2019 and 2020 by December 31, 2021;
- the Como EGA approved the new structure on January 19, 2021 effective January 1, 2018. During 2021, adjustment procedures were initiated by the company Lereti S.p.A. with reference to the years 2018, 2019 and 2020, applying the tariff increases approved at the same meeting;
- the Varese EGA had already approved the new structure in 2019.

2018 Budget Law: National plan for action in the water sector

Article 1, paragraph 516, of Law 205/2017 requires, for the purpose of planning and implementing the measures necessary to mitigate the damage related to the phenomenon of 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 of the National Plan and reported by the EGAs to the ARERA are financed with public resources.

The subsequent DPCM of August 1, 2019 bearing the following title “Adoption of the first draft of the National Plan of interventions in the water sector - aqueducts section” approves 26 interventions for a total amount of 80 million euro for the two years 2019 and 2020: among the interventions also included is that relating to the Municipality of Calvisano (BS) managed by A2A Ciclo Idrico S.p.A. for the construction of the aqueduct, sewerage and purification network.

ARERA drew up an initial list of necessary and urgent interventions, within which the Calvisano intervention has so far benefited from contributions of 5.3 million euro.

Resolution 284/2020/R/idr initiated the procedure for the identification of the second list of necessary and urgent interventions for the purpose of updating the “aqueducts” section of the National Plan. The Authority intends to define a single plan (submitted by the respective EGAs and Regions) based on a multi-year programme for the period 2021-2028, to which the entirety of the residual resources provided for in article 1, paragraph 155, of Law 145/2018. As part of this process, in September, the ACSM-AGAM Group presented some strategic projects that still need to be validated by the Lombardy Region.

In view of the continuing health emergency, Resolution 58/2021/R/idr introduces simplification measures to ensure the timely disbursement of resources for the design and implementation of the interventions contained in Annex 1 to the Prime Ministerial Decree DPCM August 1, 2019. With reference to Calvisano, Resolution 582/2021/R/idr authorizes the CSEA to disburse the portion of the loan equal to 1.17 million euro (remaining loan equal to approximately 1.1 million euro).

ARERA report 331/2021/I/idr on the criticality of water services in some regions of Southern Italy and formulation of proposals for the revision of current regulations

With Resolution 331/2021/I/idr, the Authority, in view of the critical state of the water service in some regions of Southern Italy, deemed it appropriate to inform the Government and Parliament of the usefulness of regulatory interventions to modify current legislative provisions in order to speed up the award of the SII.

In some areas of the country, in fact, significant criticalities in the management of the SII persist, confirming the persistence of the water service divide precisely where the infrastructural deficit is greater (areas in which the EGAs are not even constituted or, if constituted, are not operative, areas with the presence of unit-based small municipal management or in house managers to whom the service has been awarded, however who show planning and feasibility difficulties in the realization of the infrastructures). The presence of fully operational EGAs as well as the completion of the procedures for awarding the service to an integrated manager are, moreover, necessary conditions for the allocation of PNRR resources and the effective implementation of the selected interventions.

Therefore, ARERA believes it is necessary to intervene at the regulatory level to overcome the management criticalities of the SII and increase its efficiency, particularly in the southern regions, and proposes to set a peremptory deadline within which to conclude the award processes and, once the terms have expired, to award, for a period of 4 years, in any case renewable, to a company subject to public control that, on the basis of the discipline of public contracts, can make use of entities with adequate industrial and financial capabilities for the provision of the service.

Activities of ARERA in the regulation and control of the district heating/cooling sector (or district heat)

Legislative Decree no. 102/2014, which transposes Directive 2012/27/EC on energy efficiency, granted the Authority specific powers to regulate and control under articles 9, 10 and 16, including in the district heating/cooling sector, even if only on specific aspects, since this is not a real tariff regulation. The powers concern, in fact, the preparation of measures on connection and disconnection from the networks, withdrawal rights, commercial and technical quality of service, the way in which operators make public the prices of the supply of heat.

The Authority is also entrusted with the task of implementing the provisions on metering, billing, access to consumer data in order to increase customer awareness and change consumer behaviour.

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 the Authority. The aim is to guarantee a greater degree of protection for users and to encourage the spread of the service through a progressive increase in the performance of the sector with the definition of minimum standards at national level.

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, the introduction of the obligation to self-read, the definition of calculation methods for estimating and reconstructing consumption and rules for archiving data. The regulation of the minimum performance characteristics of the meters has been postponed to a subsequent provision.

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. Two levels of protection have been introduced: a basic level that provides for the extension of the contact center service of the Energy and Environment Consumer Desk to district heating, and a second level that allows end users to activate a conciliation procedure before the Authority's Conciliation Service.

Annex A of Resolution 463/2021/R/tlr updated for the period from January 1, 2022 to December 31, 2025 the regulation on the criteria for determining connection fees and procedures for exercising the right of withdrawal (TUAR). The Authority, confirming the provisions of the current TUAR, has rationalized and harmonized the contents of the various integrated texts (TITT, RQTT and TIMT) that will be applied from January 1, 2022. Annex B to the same Resolution approves the Consolidated Text for the size classification of district heating and cooling service operators for the period January 1, 2022 - December 31, 2025 (TUD), defining different obligations for operators based on their size thresholds, which remain unchanged but are determined only by conventional power. The classification of the user (relevant for the payment of compensation or exclusion from regulation), on the other hand, will take place exclusively on the basis of contractual power. Finally, all the data collections to be sent to ARERA regarding the contractual relationship with the user (including metering) and prices are combined into a single deadline of June 30, while the data collection on technical quality is moved to September 30 of each year.

Resolution 526/2021/R/tlr updated for the period January 1, 2022 - December 31, 2025 the provisions regarding the commercial quality of district heating and cooling services (RQCT). In order to rationalize the regulations, the provisions regarding the estimate for connection, the obligation to inform the user in the event of a request for deactivation or disconnection have been transferred to the RQCT, while the definitions of emergency intervention have been transferred to the RQTT and the TITT. The minimum elements to be recorded for works estimates have been supplemented, including the start and end dates of any suspensions for activities (authorizations or works) by the applicant and the dates on which the authorizations were requested and obtained, also in order to reduce possible disputes regarding compliance with the quality standard. Finally, the application of a specific standard to “disconnections” and “execution of complex work” with related automatic compensation and escalation mechanism has been envisaged.

Meetings with ARERA continue as part of the focus group on the regulation of conditions for access to district heating networks by third-party heat production plants.

Closing with negative result of the inspection visit of the GSE on the cogeneration plant combined with district heating of Canavese (MI)

The cogeneration plant of Canavese combined with a district heating network was qualified IAFR by GSE on July 28, 2010 in order to obtain Green Certificates (GC). The incentive period was from January 1, 2011 through December 31, 2018.

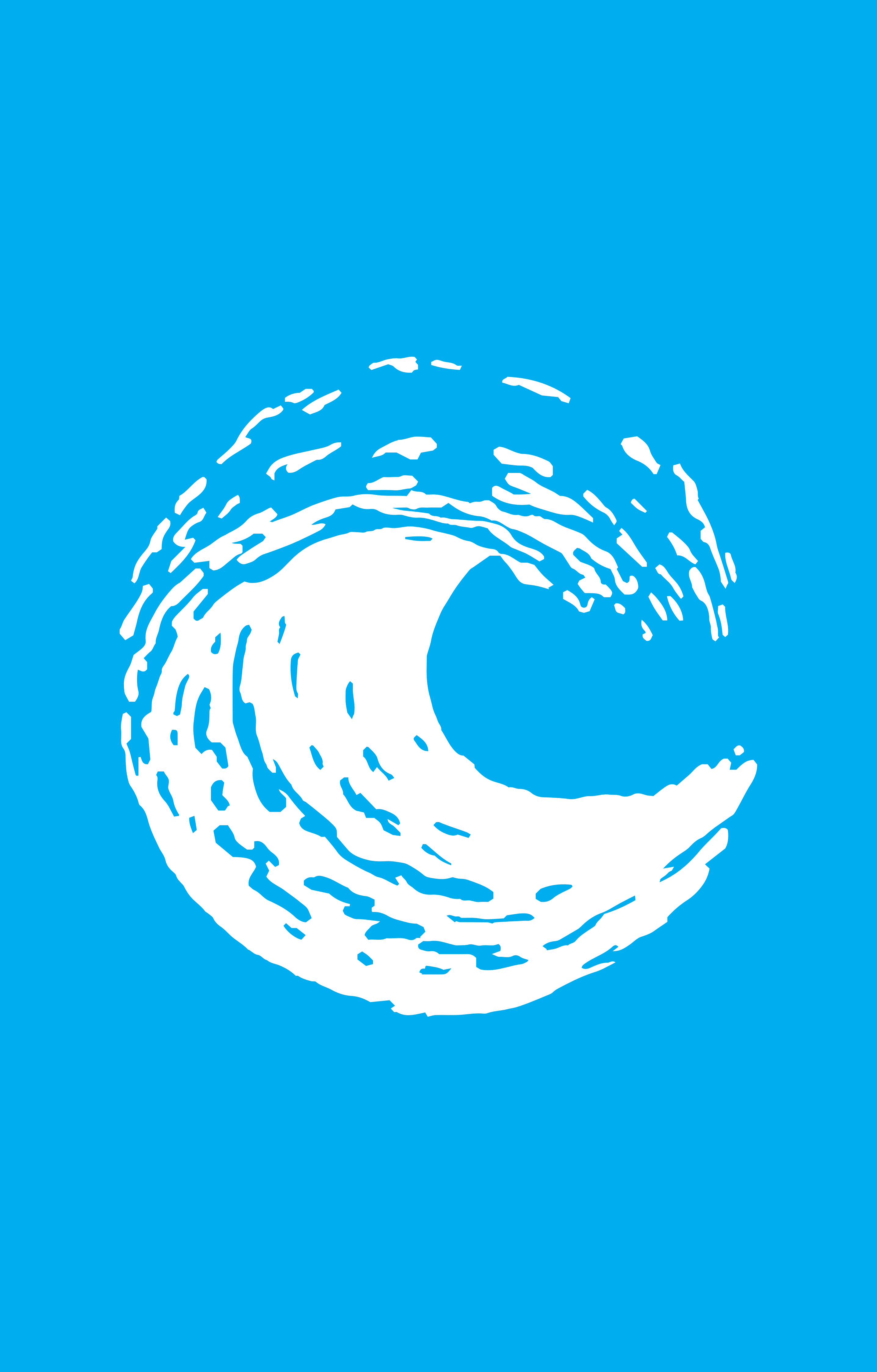
On March 12-14, 2018, the GSE initiated a verification procedure aimed at analyzing the achievement of: i) CAR (high-efficiency cogeneration) qualification and ii) GC incentives.

On March 25, 2019, after a series of integrations provided by the company, the GSE sent a letter of first outcome in which it contested the undue obtaining of GCs also on the heat delivered on primary pipeline that had come into operation after December 31, 2009, the date the GSE considers as the deadline to extend the network for the purposes of the incentive.

In February 2020, the GSE closed the inspection visit positively with reference only to the verification of the CAR qualification in view of a malfunction of the metering instruments.

In a letter dated November 24, 2021, the GSE concluded, however, with negative outcome, the verification relating to the GC incentives disbursed, the amount of which will have to be recalculated following the indications communicated by the GSE: the estimated restitution amounts to approximately 13 million euro (already set aside in a provision for risks equal to 14.4 million euro).

The company is preparing an administrative appeal to the Lazio Regional Administrative Court against the GSE letter of November 24, 2021 in order to protect its interests.



5

Consolidated results and report on operations

5.1 Summary of results, assets and liabilities and financial position

Results

Note that the consolidation perimeter at December 31, 2021 has changed with respect to December 31, 2020 due to the following transactions:

- acquisition and line-by-line consolidation by LGH S.p.A. (now merged into A2A S.p.A.) of 100% of the shares in Agripower S.r.l., a company specialising in the development and management of power generation plants from biogas;
- acquisition by A2A Rinnovabili S.p.A. and line-by-line consolidation of 15 companies with 17 plants and 173 MW of installed photovoltaic capacity, previously managed by Octopus Renewables;
- acquisition and line-by-line consolidation by A2A Rinnovabili S.p.A. of Gash 1 S.r.l. and Gash 2 S.r.l., two project companies with authorization to build two photovoltaic plants;
- as part of the transaction that led to the acquisition of 27.7% of Saxa Gres S.p.A. by A2A Ambiente S.p.A., Energia Anagni S.r.l. and Bioenergia Roccasecca S.r.l., companies that will manage two OFMSW plants, currently under construction, were acquired and consolidated on a line-by-line basis. As part of the same transaction, A2A Ambiente S.p.A. set up two newco's with majority stakes: Waldum Tadinum Energia S.r.l. and Bioenergia Gualdo S.r.l., both consolidated on a line-by-line basis;
- acquisition and consolidation at equity of the investment in Netcity S.r.l., a company operating in the energy efficiency sector;
- acquisition by A2A Ambiente S.p.A. and line-by-line consolidation of 100% of TecnoA S.r.l., a company operating in the treatment of special waste;
- acquisition by A2A Ambiente S.p.A. and consolidation at equity of 30% of the investment in F.lli Omini S.p.A., a company specializing in the demolition of industrial plants;
- incorporation and line-by-line consolidation of Romeo Gas S.p.A..

Finally, the investment held by A2A Energy Solutions S.r.l. in Consul System S.p.A., previously consolidated on a line-by-line basis, has been consolidated at equity following the sale of 26% of its shares at the end of January 2021, and the sale of the investment in Ge.S.I. S.r.l., previously consolidated at equity.

Lastly, the following equity investments were reclassified to "Non-current assets held for sale":

- the investment held by A2A Energy Solutions S.r.l. in Consul System S.p.A., previously consolidated on a line-by-line basis, has been reclassified as a result of the sale of 26% of its shares, which was completed at the end of January 2021;
- the investment held by A2A S.p.A. in Ge.S.I. S.r.l., previously consolidated using the equity method, has been reclassified following the exercise of the put option, signed on November 23, 2020, on the entire equity investment.

Moreover, the economic figures at December 31, 2021 are not consistent with the previous year due to the following extraordinary transactions in 2020:

- line-by-line consolidation of the AEB Group as of November 1, 2020;
- acquisition by A2A Rinnovabili S.p.A. and line-by-line consolidation of 100% of Flabrum S.r.l. and Solar Italy V S.r.l., companies operating in the sector of power generation from renewable sources;
- acquisition by LGH S.p.A. (now merged into A2A S.p.A.) and line-by-line consolidation of Agritre S.r.l., Tre Stock S.r.l. (merged already in December 2020 into Linea Green S.p.A.) and Fragea S.r.l., companies operating in the biomass generation sector.

It should be noted that some income statement items, referring to non-current assets held for sale (three buildings located in Milan sold in February 2022 and assets concerning gas distribution referring to ATEMs considered non-strategic for the Group) in compliance with the provisions of IFRS 5, were reclassified to the item "Net result from non-current assets held for sale". As a result, the values as of December 31, 2020 have been restated.

It should also be noted that the COVID-19 health emergency did not have any significant impact on the company's operations in 2021, nor are there any signs that would suggest that significantly different macroeconomic scenarios are likely, thanks to the gradual reopening of economic activities following the widespread vaccination campaign launched.
In particular, on the basis of the evidence available at December 31, 2021, no critical issues and uncertainties have emerged in respect of the business operating as a going concern. Finally, the impairment test carried out on the CGUs confirmed the recoverability of the assets recorded in the financial statements and did not reveal any reversals or write-downs.

The results of the A2A Group at December 31, 2021 are set out below together with comparative figures for the previous year.

millions of euro	01 01 2021 12 31 2021	01 01 2020 12 31 2020 Restated	Changes
Revenues	**11,549**	**6,848**	**4,701**
of which:			
- Revenues from the sale of goods and services	*11,352*	*6,655*	*4,697*
- Other operating income	*197*	*193*	*4*
Operating expenses	(9,400)	(4,945)	(4,455)
Labour costs	(721)	(703)	(18)
Gross Operating Income - EBITDA	**1,428**	**1,200**	**228**
Depreciation, amortization and write-downs	(679)	(552)	(127)
Provisions	(89)	(94)	5
Net Operating Income - EBIT	**660**	**554**	**106**
Result from non-recurring transactions	**-**	**-**	**-**
Net financial balance	(72)	(81)	9
Affiliates	2	-	2
Result before taxes	**590**	**473**	**117**
Income taxes	(36)	(99)	63
Result after taxes from operating activities	**554**	**374**	**180**
Net result from discontinued operations	(4)	(6)	2
Minorities	(46)	(4)	(42)
Group result of the year	**504**	**364**	**140**

In 2021, the **Revenues** of the A2A Group amounted to 11,549 million euro, up 69% compared to the previous year.
The increase was in wholesale energy markets primarily due to the extraordinary increase in electricity and gas prices recorded in 2021. Revenues in the retail market were also up thanks to higher unit prices and higher quantities sold to customers in the gas and electricity market. Finally, new companies contributed to the aforementioned positive change, acquired in 2020 (AEB Group, consolidated on a line-by-line basis from November 2020, Agritre, Fragea, Tre Stock S.r.l. and Flabrum) and in 2021 (Octopus and Agripower).

The **Gross Operating Income** equalled 1,428 million euro, a rise of 228 million euro compared to 2020 (+19%).
Excluding non-recurring items (+31 million euro in 2021, +13 million euro in 2020), Ordinary Gross Operating Margin increased by 210 million euro. Furthermore excluding the contribution deriving from the consolidation of AEB and the other companies acquired (approximately 55 million euro), growth amounted to 155 million euro (+13%)

The following table highlights the composition by Business Unit:

millions of euro	12 31 2021	12 31 2020	Delta	Delta%
Generation and Trading	368	269	99	36.8%
Market	214	202	12	5.9%
Waste	341	282	59	20.9%
Smart Infrastructures	538	471	67	14.2%
Corporate	(33)	(24)	(9)	37.5%
Total	**1,428**	**1,200**	**228**	**19.0%**

The Gross Operating Margin of the Generation and Trading Business Unit amounted to 368 million euro, an increase of 99 million euro compared to the previous year. Net of the non-recurring items in the two periods considered (+10 million euro in 2021 and +8 million euro in 2020), the Ordinary EBITDA increased by 97 million euro.
The positive change is mainly attributable to:
- the extraordinary results achieved in the ancillary services market (“MSD”), thanks to the opportunities that emerged as a result of Terna’s requests for exceptionally critical grid conditions in the last few months of the year;
- the excellent performance of the Trading portfolio;
- the contribution of newly acquired photovoltaic and wind power plants.

The exceptional change in the wholesale price of electricity (PUN), which characterised both 2021, with an upward trend, and 2020, with a downward trend, did not produce significant results for the margins of the industrial electricity portfolio following the hedging policies adopted by the Group, which significantly mitigated the effects.
The positive impacts were partly offset by:
- lower hydroelectric production;
- negative effects of the energy scenario on the gas portfolio;
- higher charges for hydroelectric fees due to both the variable and free energy to be paid and the fixed component for some plants.

EBITDA of the Market Business Unit equalled 214 million euro (202 million euro at December 31, 2020). Net of the non-recurring items recorded in the two comparison periods (+14 million euro in 2021 and +3 million euro in 2020), the ordinary Gross Operating Margin increased by 1 million euro.
The change of 1 million euro (+1%) is due to the increase in margins recorded in the retail segment for:
- the consolidation of the AEB Group;
- the increase in the number of mass-market electricity customers;
- increased sales, particularly to large customers in the market.

This growth has been scaled back:
- the drop in unit margins on sales in the free electricity market due to particularly high imbalance charges as a result of the substantial increase in energy prices in the year, against volumes that were not misaligned with previous years;
- higher operating costs than those incurred last year due to a slowdown in activities following the spread of COVID-19.

The EBITDA of the Waste Business Unit equalled 341 million euro (282 million euro at December 31, 2020).
Net of non-recurring items (+8 million euro in 2021, +1 million euro in 2020), the Business Unit’s ordinary Gross Operating Margin was 333 million euro, an increase of 52 million euro compared to December 31, 2020.
All areas of the business unit made a positive contribution to the result for the year thanks to:
- the incremental contribution of biomass and biogas power generation plants acquired in the previous year (Agritre, Fragea and Tre Stock) and in 2021 (Agripower);
- the positive dynamics of electricity and heat transfer prices;
- the increase in the price of delivering waste similar to municipal waste;
- the greater quantities of industrial waste disposed of;
- the increase in paper prices due to high demand in the European market;
- the incremental contribution from the consolidated AEB group as of November 2020.

The Gross Operating Margin of the Smart Infrastructures Business Unit in 2021 was 538 million euro (471 million euro at December 31, 2020).
Net of non-recurring items (+7 million euro in 2021; +10 million euro in 2020), the Business Unit’s ordinary Gross Operating Margin was 531 million euro, up 70 million euro (+15.2%) compared to 2020.
The change in margins is distributed as follows:
- electricity and gas distribution networks (+41 million euro): increase linked to the change in the scope of consolidation, higher revenues admitted for regulatory purposes and lower operating costs;
- district heating (+23 million euro): margins increased mainly due to higher quantities sold as a result of commercial development and cooler average temperatures compared to the previous year, as well as higher services related to the activity following the superbonus measures;
- water cycle (+10 million euro): higher revenues due to the tariff increases approved by the sector Authority;
- Smart City (-4 million euro): conclusion of activities started in previous years relating to the construction of infrastructures for laying fibre optic cables and lower margins due to the transfer of the business unit (telecommunications) to the corporate.

"Depreciation, amortization, provisions and write-downs" totalled 768 million euro (646 million euro at December 31, 2020), of which 41 million euro from the consolidation of the AEB Group and 15 million euro from the first-time consolidation of the companies acquired in 2021, representing an increase of 122 million euro.

"Depreciation, amortization and write-downs" totalled 679 million euro (552 million euro at December 31, 2020), of which 38 million euro from the consolidation of the AEB Group, recording an overall increase of 127 million euro.
Amortization of intangible assets amounted to 201 million euro (136 million euro at December 31, 2020). The item shows higher amortization and depreciation of 65 million euro, of which 11 million euro deriving from the consolidation of the AEB Group, 4 million euro relating to the consolidation of Flabrum and Agripower, 24 million euro relating to the recovery of amortization relating to the gas distribution network in ATEM Milan1, 20 million euro relating to the implementation of IT systems and 6 million euro relating to the integrated water service and gas distribution and metering.

Depreciation of tangible assets show an increase of 54 million euro compared to December 31, 2020 and includes:
- higher depreciation of 9 million euro, relating to the consolidation of the AEB Group;
- higher depreciation of 12 million euro relating to the consolidation, from 2021, of Agripower and Octopus;
- higher depreciation of 2 million euro, relating to the plan for replacement of electricity meters;
- higher depreciation of 2 million euro for rights of use;
- higher depreciation of 5 million euro following the new appraisals on landfills;
- higher depreciation of 9 million euro relating to the decommissioning of some plants;
- higher depreciation of 7 million euro relating to the increased operating hours of the turbogas plants;
- higher depreciation of 8 million euro mainly relating to the investments which went into production after December 31, 2020.

Write-downs for the year amounted to 13 million euro, of which 9 million euro deriving from consolidation of the AEB Group, 1 million euro from write-downs of the Asrab and Cavaglià landfills, 1 million euro from write-downs of the electrical network and abandoned gas pipes and 2 million euro from write-downs of electronic equipment no longer used in the Group's operations.

The balance of "Provisions for risks" shows a net effect of 56 million euro (64 million euro at December 31, 2020) due to allocations in the year of 66 million euro, offset by the surpluses of 10 million euro since some ongoing disputes have ceased to exist.
Allocations for the year included 13 million euro allocation for public water diversion fees, 7 million euro allocation to tax provisions, 29 million euro allocation to provisions for landfill closure and post-closure expenses and decommissioning, 6 million euro allocation to personnel lawsuits and disputes provisions and 11 million euro other provisions for ongoing disputes. Surpluses in provisions for risks amounted to 10 million euro and include 3 million euro for the release of provisions for additional fees paid for hydroelectric power plants, 2 million euro for the release of provisions for legal and tax disputes and other releases for 5 million euro.

The "Bad debts provision" showed a balance of 33 million euro (30 million euro at December 31, 2020), of which 1 million euro deriving from the consolidation of the AEB Group, determined by the allocation for the year.

As a result of these changes **"Net operating income"** amounted to 660 million euro (554 million euro at December 31, 2020).

The **"Result from non-recurring transactions"** was nil at December 31, 2021 (nil at December 31, 2020).

"Net financial charges" amounted to 72 million euro (81 million euro at December 31, 2020), representing a decrease of 9 million euro. The fall is mainly related to the decrease of 10 million euro in interest on bonds due to the refinancing of bonds that matured with the issuance of newer bonds at lower rates.

The **"Affiliates"** was 2 million euro (nil at December 31, 2020), and is mainly attributable to the positive valuation of the shareholdings held in the companies Consul System and Metamer.

"Income taxes" for the year amounted to 36 million euro (99 million euro at December 31, 2020). The reduction in taxes with respect to the previous year reflects the release of deferred tax liabilities following the realignment option pursuant to DL 104/2020, exercised by some Group companies, which allowed the realignment of the differences between higher statutory values and lower values for tax purposes on tangible assets and the consequent deduction of higher tax amortization starting from the current year, as well as the release of a part of deferred IRAP tax assets as the Group considered their recoverability to be unreasonable. The impact of the release of deferred tax assets/liabilities amounted to 168 million euro, while the recognition of a substitute tax following the realignment option pursuant to DL 104/2020 was equal to 23 million euro.

The **"Net result from discontinued operations"** is negative and equal to 4 million euro (negative for 6 million euro at December 31, 2020) and refers to the reclassification of revenues, costs and amortization relating to some assets concerning gas distribution referring to ATEMs considered non-strategic for the Group and three properties in the Milan area which, in compliance with IFRS5, at December 31, 2021 were reclassified under "Assets held for sale".

The **"Group result of the year"**, after the minorities of 46 million euro were deducted, was positive and amounted to 504 million euro (positive for 364 million euro at December 31, 2020).

Balance sheet and financial position

For changes in the scope of consolidation at December 31, 2021, 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 2021	12 31 2020	Changes
EMPLOYED CAPITAL			
Net fixed assets	**8,026**	**7,067**	**959**
- Tangible assets	5,588	5,162	426
- Intangible assets	3,125	2,737	388
- Shareholdings and other non-current financial assets (*)	73	32	41
- Other non-current assets/liabilities (*)	(93)	(99)	6
- Deferred tax assets/liabilities	424	265	159
- Provisions for risks, charges and liabilities for landfills	(797)	(752)	(45)
- Employee benefits	(294)	(278)	(16)
of which with counter-entry to equity	*(134)*	*(94)*	
Net Working Capital and Other current assets/liabilities	**243**	**507**	**(264)**
Net Working Capital:	**601**	**617**	**(16)**
- Inventories	204	139	65
- Trade receivables	3,291	2,030	1,261
- Trade payables	(2,894)	(1,552)	(1,342)
Other current assets/liabilities:	**(358)**	**(110)**	**(248)**
- Other current assets/liabilities (*)	(405)	(181)	(224)
- Current tax assets/tax liabilities	47	71	(24)
of which with counter-entry to equity	*46*	*7*	
Non current assets held for sale (*)	**147**	**14**	**133**
of which with counter-entry to equity	*-*	*-*	
TOTAL EMPLOYED CAPITAL	**8,416**	**7,588**	**828**
SOURCES OF FUNDS			
Equity	**4,303**	**4,116**	**187**
Total financial position beyond one year	4,309	3,907	402
Total financial position within one year	(196)	(435)	239
Total Net Financial Position	**4,113**	**3,472**	**641**
of which with counter-entry to equity	*20*	*31*	
TOTAL SOURCES	**8,416**	**7,588**	**828**

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

Net fixed assets

The **"Net fixed capital"** amounted to 8,026 million euro, up 959 million euro compared to December 31, 2020.
Changes are detailed below:

- Tangible assets increased by 426 million euro due to:
  - investments made for 714 million euro due to interventions on waste treatment and waste-to-energy plants, on thermoelectric and hydroelectric plants and on renewable source energy plants for 366 million euro, to the development and maintenance of electricity distribution plants, the expansion and reconstruction of the medium and low voltage network, and the installation of new electronic meters for 156 million euro, the development of district heating networks for 81 million euro, the purchase of movable means to collect waste and other equipment for 36 million euro, investments focussed on developing the energy efficiency plan for 29 million euro, interventions on the optic fibre and gas transport network for 13 million euro and interventions on buildings for 33 million euro;
  - first-time consolidation of acquisitions in the year, accounting for an increase of 217 million euro;
  - net decrease for other changes equal to 26 million euro due to decreases of 54 million euro in application of IFRS5 for assets held for sale of properties located in Milan, increases in the decommissioning provision and landfill closure and post-closure expenses for 26 million euro, increases in rights of use in application of IFRS 16 for 17 million euro, decreases in advances and prepayments to suppliers for 4 million euro, reclassifications from tangible assets to intangible assets for 9 million euro, and decrease of 2 million euro due to reclassifications to other items in the financial statements;
  - decrease of 4 million euro arising from disposals in the year, net of accumulated depreciation;
  - decrease of 10 million euro due to write-downs in the year;
  - decrease of 465 million euro for the depreciation charge for the year;
- Intangible assets increased by 388 million euro on December 31, 2020, due to:
  - capex for 360 million euro related to the implementation of computer systems for 131 million euro, plant development and maintenance work in the gas distribution area for 117 million euro, works on the water transport and distribution network, sewers and purification plants for 92 million euro, new acquisitions and maintenance of the customer portfolio for 11 million euro and other residual investments for 9 million euro;
  - first-time consolidation of acquisitions in the year, accounting for an increase of 351 million euro;
  - net decrease of 117 million euro in other changes, due to a decrease following reclassification to other items in the financial statements of assets held for sale relating to gas networks considered non-strategic for the Group (114 million euro), a decrease in environmental certificates for the industrial portfolio (12 million euro) and an increase due to reclassification from tangible to intangible assets (9 million euro);
  - decrease of 2 million euro arising from disposals in the year, net of accumulated depreciation;
  - decrease of 3 million euro due to write-downs in the year;
  - decrease of 201 million euro for the depreciation charge for the year;
- Equity investments and other non-current financial assets, at 73 million euro, up by 41 million euro compared to December 31, 2020; The change is due to the change in the method of consolidation of Consul System S.p.A. following the exercise of the put option of 26% of the shares, for 6 million euro to the acquisition of 30% of the investment in F.lli Omini, for 1 million euro to the acquisition of 49% of the investment in NetCity S.r.l., for 14 million euro to the reclassification, under non-current assets, following the request for deposit in a specific current account, of the sums seized by the Court of Taranto as part of the ongoing proceedings against the subsidiary Linea Ambiente Srl and for 11 million euro referring to investments made in innovative start-ups through Corporate Venture Capital projects. There were also further positive changes amounting to 2 million euro;
- other non-current assets and liabilities showed a net decrease of 6 million euro mainly due to the reclassification for 31 million euro, following the ESMA guideline applicable from May 5, 2021, in the statement of financial indebtedness, of payables due after 12 months for deferred prices arising from acquisitions made in the photovoltaic sector, offset by the net increase in liabilities for security deposits equal to 22 million euro;
- deferred tax assets amounted to 424 million euro (265 million euro at December 31, 2020) and showed an increase of 159 million euro. The change includes the release of deferred tax liabilities, following the exercise of the realignment option pursuant to DL 104/2020, exercised by some Group companies, which allows the realignment of the differences between higher statutory values and lower values for tax purposes on tangible assets and the consequent deduction of higher tax amortization starting from the current year, as well as the release of a part of deferred IRAP tax assets as the Group considered their recoverability to be unreasonable. The impact of the release of deferred/tax assets/liabilities was equal to 168 million euro;

- the Provisions for risks, charges and liabilities for landfills rise, net of the effects of the first-time consolidations for 3 million euro, by 42 million euro. The change in the year is the net result of uses in the year (29 million euro), due to decommissioning and landfill costs (22 million euro), the settlement of legal disputes (1 million euro) and additional uses (6 million euro). There was also an increase deriving from net provisions during the year for 56 million euro and other increases for 15 million euro, following some new appraisals as well as the update of existing appraisals and the discounting rates used to estimate future costs for dismantling and restoration;
- employee benefits increased by 16 million euro, relating to provisions for the year net of payments during the year, payments to pension funds and actuarial valuations.

Net Working Capital and Other current assets/liabilities

The **"Net Working Capital"**, defined as the algebraic sum of trade receivables, closing inventories and trade payables, amounted to 601 million euro, down by 16 million euro compared to December 31, 2020. Comments on the main items are given below:

- "Inventories" amounted to 204 million euro (139 million euro at December 31, 2020), net of the related obsolescence provision for 22 million euro, up 65 million euro compared to December 31, 2020. The change is due to the effect of first-time consolidation of 9 million euro, an increase of 49 million euro in fuel stocks (gas and diesel), an increase of 11 million euro in stocks of materials and white certificates, and other decreases of 4 million euro;
- "Trade receivables" amounted to 3,291 million euro (2,030 million euro at December 31, 2020), with an increase of 1,261 million euro, of which 9 million euro due to the first-time consolidation effects of the year.
  The change in trade receivables is primarily due to the increase in tariffs for the sale of electricity and gas in the last quarter of the year.
  The "Bad debts provision", calculated in compliance with IFRS 9, amounted to 133 million euro and showed a net increase of 3 million euro compared to December 31, 2020;
- "Trade payables" amounted to 2,894 million euro, with an increase of 1,342 million euro, of which 13 million euro due to the first-time consolidation effects of the year.
- "Other current assets/liabilities" presented a net increase in liabilities of 248 million euro, due to:
  - net increase of 255 million euro in payables due to early collection of electricity and gas futures contracts, which will take place in the following year;
  - 40 million euro net increase in tax payables for VAT, excise duties and other indirect taxes;
  - increase in receivables for security deposits for 35 million euro;
  - net decrease in current tax receivables of 24 million euro;
  - an increase of 21 million euro in receivables for energy requalification and efficiency works at condominiums and third parties;
  - increase in advances to suppliers by 15 million euro;
  - a net increase of 13 million euro in payables due to the Cassa per i Servizi Energetici e Ambientali, including payables for energy tariff components previously collected by the GSE;
  - net increase of 6 million euro in derivative assets, reflecting a change in fair value at the end of the period and in the quantities hedged;
  - net decrease in payables to employees for 3 million euro;
  - other increases in current assets of 4 million euro.

"Assets/liabilities held for sale" were positive and amounted to 147 million euro at December 31, 2021, and relate for 102 million euro to the reclassification of certain assets and liabilities relating to gas distribution referring to ATEMs considered non-strategic for the Group and the reclassification of assets owned by the parent company A2A S.p.A. referring to three buildings located in Milan which were sold in February 2022 for 45 million euro.

Consolidated **"Invested capital"** at December 31, 2021 amounted to 8,416 million euro and was financed by Equity for 4,303 million euro and the Net Financial Position for 4,113 million euro.

Equity

At 4,303 million euro, **"Equity"** shows a positive movement of 187 million euro.
The positive change was partly due to the year result for 550 million euro (504 million euro pertaining to the Group and 46 million euro to minorities), offset by the distribution of dividends for 248 million euro. There was also a positive valuation of cash flow hedge derivatives and IAS 19 reserves for a total of 7 million euro.
Other negative changes in Group Equity, amounting to 107 million euro, mainly arose from the acquisition of 49% of LGH S.p.A..

The **"Consolidated Net Financial Position"** at December 31, 2021 was 4,113 million euro (3,472 million euro at the end of 2020). Excluding changes in the scope of consolidation during the current year and the application of the new ESMA Guidelines, the Net Financial Position stood at 3,366 million euro, recording, after investments of 1,074 million euro and dividends of 248 million euro, a cash generation of 106 million euro.

millions of euro	01 12 2021 12 31 2021	01 12 2020 12 31 2020
NET FINANCIAL POSITION AT THE BEGINNING OF THE YEAR	**(3,472)**	**(3,154)**
First-time consolidation effect	**(183)**	**(85)**
New contracts IFRS 16	**(17)**	**(20)**
Net result	550	368
Taxes for the year	36	99
Net interest of the year	72	81
Gains/losses for the year	-	4
Depreciation/amortization	666	555
Write-downs/disposals of tangible and intangible assets	19	16
Net allocations for the year	89	94
Affiliates	(2)	-
Net interest paid	(80)	(80)
Net taxes paid	(165)	(123)
Dividends paid	(263)	(256)
Change in receivables from customers	(1,285)	(123)
Change in payables to suppliers	1,329	25
Change in inventories	(56)	53
Other changes in net working capital	225	(116)
Cash flow from operating activities	**1,135**	**597**
Investments in tangible and intangible assets	(1,074)	(738)
Investments in shareholdings and securities	(444)	(139)
Contribution of cash and cash equivalents first-time consolidations	27	36
Disposals of fixed assets and shareholdings	5	38
Dividends received from shareholdings	-	1
Purchase of treasury shares	(109)	-
Net cash flows from investment activities	**(1,595)**	**(802)**
Free cash flow	(460)	(205)
Other changes	**8**	**(1)**
Changes in financial assets/liabilities with counter-entry to equity	11	(7)
NET FINANCIAL POSITION AT THE END OF THE YEAR	**(4,113)**	**(3,472)**

5.2 Significant events during the year

A2A and LGH: merger process

On November 23, 2020 and December 14, 2020, A2A received a request from LGH shareholders (representing a total of 42.5% of the LGH share capital) to start the process for a possible merger by incorporation of LGH into A2A. Pursuant to this request, and in agreement with LGH minority shareholders, the preliminary merger proposal was submitted on April 16, 2021.
The preliminary merger proposal, sent to the attention of LGH minority shareholders who together hold 49% of the share capital, envisages that on completion of the merger they will hold 2.75% of the A2A share capital. The preliminary merger proposal was accepted on June 15, 2021 by LGH Minority Shareholders on a percentage basis (at least 70%) and within the contractual terms.
On June 28, 2021, the Boards of Directors of A2A and LGH approved the plan for the merger by incorporation of LGH into A2A. The merger by incorporation of LGH into A2A is in line with the process of rationalising the companies of the A2A Group and completes the path of evolution of the partnership between A2A and the minority shareholders of LGH, as outlined in the partnership agreements signed on March 4, 2016 and subsequently integrated.
The merger, in addition to rationalizing the Group companies, will enable economic synergies to be generated over time thanks to the integrated management of processes and systems.

On October 7 and 8, 2021, the Extraordinary Shareholders' Meetings of the two companies were held, which approved the plan for the merger by incorporation of LGH into A2A. The merger agreement was signed on December 15, 2021, and the statutory effects of the merger will take effect on December 31, 2021.

A2A presents its new 2030 business plan and repositions its brand to "Life Company"

On January 19, 2021, the A2A Group's Board of Directors examined and approved the 2021-2030 Strategic Plan, A2A's first Business Plan with a 10-year horizon. Sustainability guides the new strategy that focuses the Plan on two industrial macro-trends, circular economy and energy transition, to which all the Group's Business Areas, Energy, Waste and Networks, contribute.
Investments of 16 billion euro are planned, 90% in line with the UN Sustainable Development Goals (SDGs), including 6 billion euro in the circular economy and 10 billion euro in energy transition. In addition, a gross operating margin of 2.5 billion euro is expected at the end of the plan, with net profits growing by more than 8% on average per year and dividends increasing by 3% on average per year.
In line with the business plan presented, the A2A Group aims to define a new brand territory in which to operate: by dealing with energy, water and the environment and thanks to the circular use of natural resources, A2A is a "Life Company" that takes care of the conditions necessary for life and its quality.

A2A acquires the largest merchant photovoltaic portfolio in Italy

On February 14, 2021, the A2A Group signed a binding agreement for the acquisition of the largest photovoltaic portfolio, without GSE incentives, including 9 plants located in Lazio and 8 in Sardinia. The nominal installed power is 173 MW.
The plants will be able to guarantee an increase in installed capacity that will allow them to produce approximately 420 GWh per year of green energy, equal to the annual consumption of approximately 200,000 residential customers, thus avoiding the emission of a total of 2.5 million tonnes of CO_2 (over the entire life cycle of the plants).
The assets acquired by Octopus Renewables are added to the 111 MW photovoltaic portfolio already held by A2A: by virtue of this acquisition, A2A reaches 33% of energy produced from renewable sources. The purchase was completed in March 2021.

A2A launches a new portal dedicated to Open Innovation

On February 17, 2021, the A2A Group made available a platform aimed at start-ups, companies, universities, research centres and all the players in the Italian and international innovation ecosystem, in which projects will be set up to test and jointly develop technological solutions to meet challenges such as energy transition and circular economy, decarbonisation, sustainable mobility, the water cycle and the creation of the cities of the future.

A2A joins the European hydrogen alliance

A2A joined the European Clean Hydrogen Alliance (ECHA), an association created with the aim of developing the hydrogen value chain in line with the European strategy.
By joining the Alliance, A2A confirms its commitment to contribute to the energy transition, decarbonization and sustainable growth and is ready to collaborate with the other players in the sector in the development of the hydrogen chain and the coordination of investments. In fact, in the new A2A Strategic Plan, presented last January, 10 billion euro of investments are planned by 2030 dedicated to the energy transition.

A2A Group: 2020 results approved

On March 18, 2021, 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, 2020.
EBITDA was 1,204 million euro and Ordinary EBITDA was 1,191 million euro, in line with the 2019 figure. The net profit amounted to 364 million euro (389 million euro at December 31, 2019).
Investments increased sharply to 738 million euro, or 18% more than in the previous year, 80% of which were consistent with the United Nations 2030 Agenda Goals (SDGs) and about 40% related to the circular economy. The Net Financial Position amounted to 3,472 million euro (3,154 million euro at December 31, 2019).
The Board of Directors proposed to the Shareholders' Meeting a dividend of 0.08 euro per share up 3.2% compared to the previous year.

World Water Day and the Aquarius project

On March 21, 2021, World Water Day, the A2A Group confirmed its strong commitment to efficient and sustainable water management.
A2A Ciclo Idrico has doubled its investments over the last five years, reaching 56.4 million euro in 2020, corresponding to 95.4 euro per inhabitant, a figure close to the European average of 100 euro per inhabitant and more than double that of the Italian average of 40 euro per inhabitant.
In addition, A2A Ciclo Idrico has started in Brescia from the beginning of 2021 a phase to repair the pipes, identified by means of the Acquarius monitoring system. This system consists of 180 sensors installed in order to monitor the networks and detect the noise caused by any water spills: when this happens, these sensors transmit the information to a data processing platform which, by interlacing all the indications collected, is able to locate the point where the pipe is broken or deteriorated.
ASVT, an acronym for Azienda Servizi Valtrompia, is now the protagonist of the realization of one of the longest-awaited projects in the province of Brescia: the Val Trompia purification plant. This work will produce important environmental benefits for the areas crossed by the Mella river - from Val Trompia to Bassa Bresciana, passing through the city of Brescia - and at the same time will make it possible to overcome the problem of European infringements for those municipalities in Val Trompia that are not covered by the purification service.
The project for the new purification plant currently underway will allow the treatment of the wastewater generated by 85,000 population equivalent (PE), for an investment of 27 million euro; the second phase, for further expansion of the plant, in the event of growth in the population of Val Trompia, will involve an investment of a further 9 million euro and could serve up to 138 thousand population equivalent.

ESG performance: Gaia Rating rewards A2A sustainability

A2A has been recognized as a leader in its sector, in terms of ESG performance, by GAIA Rating, a non-financial rating agency, part of the Ethifinance Group, which specializes in assessing the ESG performance of over a thousand companies listed on European markets.
A2A obtained an overall score of 77 points out of 100, beating the average for the "Conventional and Renewable Energy Producer" sector by a good 26 points.

A2A and TIM: collaboration agreement for digital transformation and energy efficiency

On April 21, 2021, A2A and TIM signed a Memorandum of Understanding, which brings together the skills and technologies consolidated in their respective areas of excellence.
For the A2A "Life Company", the agreement will allow making its digital transformation process even faster and more effective, in order to optimize its operational and commercial processes through the use of the TIM Group's cloud, 5G and IoT services.
For TIM, the aim of the agreement will be to increase the energy efficiency of Noovle Data Centres, making them increasingly green and sustainable by optimizing consumption and using alternative energy sources.

World Earth day 2021: A2A lancia le olimpiadi della sostenibilità

On the occasion of World Earth Day 2021, A2A launched the Sustainability Olympics, a project involving 186 second-grade secondary schools for a total of 11,000 students throughout Italy.
The initiative aims to raise awareness among young people on the issue of sustainable development, making them more aware of the importance of the main contents of the UN 2030 Agenda and its objectives.
With the support of Consorzio ELIS, a non-profit organization that promotes quality vocational training, students attending the 4th year of high school will compete in the creation of works and videos, competing to participate in the final challenge. Three finalist classes will be selected to take part in the A2A creative marathon as part of Earth Day 2022.

Ordinary and extraordinary shareholders' meeting of A2A S.p.A.

On April 29, 2021 the Ordinary and Extraordinary Shareholders' Meeting of A2A S.p.A. was held to approve the company's financial statements for the year 2020 and to approve the distribution of the dividend proposed by the Board of Directors of 0.08 euro per share.
The shareholders also voted in favour with a binding vote on the first section of the 2021 Report on Remuneration and with an advisory, non-binding vote on the second section of the 2021 Report on Remuneration.
The Shareholders' Meeting also authorized and defined the terms within which the Board of Directors may purchase and dispose of treasury shares.

A2A presents the 2020 Integrated Report

On May 6, 2021, A2A presented the 2020 Integrated Report, which confirms the Group's commitment to sustainable development and to contributing to the achievement of the objectives of the UN Agenda 2030.
The A2A Integrated Report is a tool based on transparency, increasingly evolved, drawn up according to rigorous internationally shared standards and methodologies. The 2020 edition includes for the first time a new section 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): the aim is to provide the world of finance with all the information it needs to properly assess the A2A strategy for managing climate-related risks and opportunities.
In 2020, the Group distributed 1,853 million euro to stakeholders and approximately 13,000 orders were issued for supplies of approximately 1.9 billion euro. Of this value, 97% went to Italian suppliers.
Investments amounted to 738 million euro (+18% compared to 2019), 80% of which were dedicated to projects in line with the objectives of the UN Agenda 2030: 43% in the circular economy and 57% in the energy transition.
With regard to the energy transition, there was a 6% increase in the production of energy from renewable sources, which now accounts for 33% of the Group's total generation.
In addition, 2020 was the year in which A2A abandoned the use of coal at the Lamarmora power plant in Brescia - ahead of the time scale required by the PNIEC - thanks to investments in the creation of thermal storage and projects to recover heat from industrial activities.
In the environmental sector, 2020 saw an increase of two percentage points in differentiated waste collection, which reached an average of 71% in the municipalities served by the Group with a percentage of municipal waste destined for material or energy recovery of 99.7%.

Smart Grid Pilot: A2A, Alfa Acciai and Lombardy Region launch their project

On May 12, 2021, A2A, through its subsidiary A2A Calore & Servizi, Alfa Acciai and the Lombardy Region presented an innovative project whereby the heat hitherto dispersed by the Brescia steelworks will be recovered and conveyed to the A2A district heating network in the city, thus creating a significant example of "super-circulation".
The project, which started with the 2021/2022 heating season, involved a total investment of 5.7 million euro, of which 2.8 million euro financed by the Lombardy Region, and the laying of the district heating network for a total of 1.2 km of double piping and 12 months of work.

The Board of Directors of A2A S.p.A. has taken a framework resolution for the issue of bonds

The Board of Directors of A2A S.p.A. that met on May 13, 2021, passed a framework resolution authorizing the issue of one or more non-subordinated, unsecured and non-convertible bonds under its EMTN Program, the size of which was increased to 6 billion euro. The maximum issuance by April 30, 2023 will be 1.5 billion euro.
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.

A2A S.p.A: purchase program of ordinary treasury shares

On May 13, 2021, A2A S.p.A. announced the launch of a program to purchase ordinary treasury shares, with a maximum duration of 18 months from the date of the shareholders' resolution of April 29, 2021, which authorized and established the terms.
The program to purchase the treasury shares, approved by the Board of Directors, has develop objectives, following transactions related to business projects consistent with the strategies of the Company in relation to which there is the opportunity of stock exchanges.
The maximum number of treasury shares that may be held by virtue of the aforementioned shareholders' resolution is 313,290,527, taking into account the shares already held by A2A S.p.A. and its subsidiaries, being one tenth of the shares making up the share capital.
The maximum number of shares that may be purchased under the Program has been set at 63,000,000, corresponding to 2.011% of the A2A share capital, which indicatively at today's date - considering the reference price of 1.6710 euro per share - would correspond to approximately 105 million euro.
On May 21, 2021, A2A S.p.A. announced that it had purchased 10,819,885 treasury shares at the unit average price of 1.7314 euro for a total of 18,733,754.89 euro.
On May 28, 2021, A2A S.p.A. announced that it had purchased 10,741,876 treasury shares at the unit average price of 1.7165 euro for a total of 18,438,101.52 euro.
On June 4, 2021, A2A S.p.A. announced that it had purchased 11,959,985 treasury shares at the unit average price of 1.7103 euro for a total of 20,455,130.69 euro.
On June 11, 2021, A2A S.p.A. announced that it had purchased 10,762,044 treasury shares at the unit average price of 1.7480 euro for a total of 18,811,850.89 euro.
On June 18, 2021, A2A S.p.A. announced that it had purchased 8,058,428 treasury shares at the unit average price of 1.7785 euro for a total of 14,331,811.14 euro.
On June 25, 2021, A2A S.p.A. announced that it had purchased 10,091,256 treasury shares at the unit average price of 1.7813 euro for a total of 17,975,055.97 euro.
On January 28, 2022, A2A S.p.A. announced that it had purchased 11,869 treasury shares at the unit average price of 1.705 euro for a total of 20,236.65 euro.
The share buyback program was characterized by ESG aspects. A2A has in fact decided to allocate the implicit economic benefit deriving from the purchase program to the Banco dell'Energia Onlus. This benefit was determined by the better price obtained from the purchase of the shares compared to the target price envisaged in the mandate given to the financial intermediary responsible for purchasing the shares.

By virtue of the ordinary share buyback programme described above, A2A S.p.A. does not hold any treasury shares at December 31, 2021.

A2A publishes the new Sustainable Finance Framework

A2A has published the new Sustainable Finance Framework, a set of guidelines to reinforce the link between the Group's financial and sustainable strategy.
Compared to the previous 2019 Green Financing Framework, A2A is among the first issuers of the sector and the first Italian issuer to adopt a framework that combines two approaches: the Green Use of Proceeds, which allows maximum transparency about the use of proceeds for specific projects, and the new Sustainability-Linked component, which allows a comprehensive reading of the Group's strategy. A set of Key Performance Indicators (KPIs) has been identified and included in the Framework. It reflects the two pillars of A2A's strategic plan, energy transition and the circular economy, and confirms the Group's commitment to the achievement of the Sustainable Development Goals of the UN 2030 Agenda.
The Sustainable Finance Framework, which covers any type of financial instrument, has been prepared in compliance with the Green Bond Principles (2018) 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 (2019) published by the Loan Market Association (LMA).
Vigeo Eiris, 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.

Eni and A2A: agreement for the Milan district heating network

On May 25, 2021, Eni and A2A signed a 20-year agreement for the supply of heat generated by the Bolgiano production site of Enipower (a wholly-owned subsidiary of Eni), which will be used to supply the Milan district heating network.
A2A Calore & Servizi will build a heat exchange and re-pumping station near the Eni plant, which will allow the transfer of the heat made available by Eni through the A2A district heating network from San Donato Milanese to Milan.
Thanks to this agreement it will be possible to supply the Milan network with co-generated heat with low environmental impact amounting to approximately 54 GWh per year, which is equivalent to the average annual requirements of about 6,000 households.

A2A: Standard Ethics confirms "strong" rating for third consecutive year

On May 31, 2021, Standard Ethics, an independent rating agency that measures the sustainability of companies, has confirmed to A2A the EE rating, which corresponds to strong.
In the opinion of the rating agency, A2A has for some time adopted environmental strategies and policies in line with the Paris Agreement for the containment of climate change, as well as ESG (Environmental, Social and Governance) reporting in line with international best practice. Progress in reducing emissions is well monitored and considered to be in line with the objectives that A2A has set itself in its new 10-year Business Plan.

A2A and Ardian sign a non-binding term sheet for a partnership to accelerate the energy transition

A2A and Ardian aim for the partnership to become one of Italy's leading energy transition platforms and one of the country's largest electricity producers and suppliers with a clear focus on green energy and energy transition, and a clear decarbonization strategy, in line with the objectives set by the Italian PNIEC and the Paris Agreement.
The term sheet provides for the establishment of a company controlled by A2A ("NewCo"), into which A2A will confer a business unit that will include full ownership of shareholdings/portfolios of assets relating to energy generation (hydroelectric, CCGT, wind and solar), energy sales, energy management storage and hydrogen-related projects. The preliminary indicative valuation of the perimeter to be transferred to the NewCo is approximately 3 billion euro (enterprise value), with a 2020 pro-forma aggregate EBITDA of 360 million euro. This assessment implies a valuation of the entire business units of A2A involved in the partnership (including minority shareholdings and portions of business units not contributed to NewCo) of approximately 4.1 billion euro (enterprise value).
Ardian will invest up to 1.5 billion euro in cash in the NewCo, thus accelerating the roll-out and financing of the 3GW plan in generation from renewable sources outlined by A2A in January 2021. The partnership will become the exclusive vehicle for A2A and Ardian future investments in the renewable energy generation sector in Italy and the parties' preferred vehicle for joint investments in the power generation sector in Italy. Following the capital increase, Ardian will hold up to 45% in the NewCo. The creation of the partnership is subject to, among other things, the completion of due diligence, further discussions between the parties, the negotiation of binding agreements and the satisfaction of certain additional conditions (including approvals and authorizations required by relevant bodies). A2A and Ardian have agreed to grant each other binding exclusivity periods until March 31, 2022.
On March 17, 2022, negotiations with Ardian were interrupted, partly due to the escalation of international tensions and the significant consequences on the volatility of energy markets in Europe.

Major companies in the energy, water and district heating sectors sign a Single Protocol for joint conciliation

On June 11, 2021, a historic agreement was signed between seven major companies in the energy, water and district heating sectors and the 20 National Consumer Associations of the CNCU, National Council of Consumers and Users. For the first time in Italy, in light of the positive experience gained in recent years, a Single Protocol has been signed: the aim of the agreement is to relaunch joint negotiations, strengthen the alternative dispute resolution tool by consolidating the dialogue between companies and consumer associations and strengthening the relationship of trust with consumers.
The protocol renews and strengthens the commitment to a tool that ensures consumers effective protection of their rights without resorting to legal proceedings that are often long and costly.

A2A S.p.A.: new procedure with related parties approved

On June 25, 2021, the Board of Directors of A2A S.p.A. approved the new procedure for transactions with related parties effective from July 1, 2021, making adjustments to the current text of the procedure to incorporate the new regulations adopted by Consob with Resolution no. 21624/2020 and the formal and substantive improvements designed to improve the efficiency of the application of the related rules, which come into force on the same date.

A2A, Sustainability-Linked credit line

On July 2, 2021, the A2A Group subscribed to a 500 million euro 5-year Sustainability-Linked revolving credit line connected to the achievement of two of the Group's sustainability targets, included in the Sustainable Finance Framework published in May: growth in installed capacity from renewable sources and increase in the recovery of materials from treated waste. The line provides for a mechanism for adjusting the margin both if A2A reaches the set targets (step down) and if the Group does not reach said sustainability targets (step up).

The savings due to the achievement of the targets or the potential penalty caused by non-achievement will benefit the community: the amount will be donated to the Banco dell'Energia Onlus, a non-profit organization promoted by A2A and the AEM and ASM Foundations, set up with the aim of supporting those who find themselves in situations of economic and social fragility, with particular attention to energy poverty. This donation will not replace but will be in addition to the Group's traditional support of Banco dell'Energia.

This instrument also represents the first credit line, among public operations, in the Italian domestic market with a donation mechanism.

A2A, the first Sustainability-Linked Bond placed

On July 7, 2021, A2A successfully placed its first Sustainability-Linked Bond of 500 million euro, with a duration of 10 years. The bond, intended institutional investors and issued within the framework of the Euro Medium Term Notes Program, is based on the recently published Sustainable Finance Framework.

The bond is connected to the achievement of a sustainability target relating to the reduction of direct greenhouse gas emissions per kilowatt hour of energy produced. A2A's objective, in line with the Group's 10-year Strategic Plan, is to reach a level of 296 g of CO2 per kWh or less by 2025, consistent with the Science Based Target commitment approved in March 2020.

The bond was placed at an issue price of 99.547% and will have an annual yield of 0.672% and a coupon of 0.625%, with a spread of 65 basis points over the mid-swap reference rate.

The coupon of the new bond is linked to the achievement of the sustainability target and provides for an increase in the interest rate of 25bps if the target is not reached, while it will remain unchanged until the maturity of the bond if the target is reached.

The issue attracted a lot of interest, receiving orders for 1.2 billion euro, more than 2.5 times the amount offered.

ESG Reporting Awards: A2A first in the ranking for the best sustainability report in the "Energy & Utilities" category

On August 4, 2021, A2A was awarded for the best sustainability report in the "Energy&Utilities" category, achieving first place in the "ESG Reporting Awards 2021" ranking by ESG Investing Global Markets Media Ltd, a financial media company based in England.

The award is linked to the analysis and evaluation, from the point of view of sustainability and climate-related reporting, of listed companies in various sectors around the world.

Sustainable development and energy transactions: agreement between A2A and Confcommercio to support businesses

On September 30, 2021, an agreement was signed between A2A, through its subsidiary A2A Energia, and Confcommercio, with the aim of activating actions for the dissemination of the culture of sustainability in the tertiary sector and giving rise to a strategic partnership aimed at supporting concrete projects for energy transition.

A2A enters in the new MIB ESG index

On October 18, 2021, A2A was included in the new MIB ESG index launched by Euronext and Borsa Italiana. This index is the first in Italy dedicated to blue-chip listed companies and aims to identify the best practices at ESG (Environmental, Social, and Governance) level.
The MIB ESG Index ranks the top 40 companies on the basis of sustainability, corporate social responsibility and liquidity criteria, combining the assessment of economic performance and ESG impacts, in line with the principles of the UN Global Compact.
For A2A, inclusion in the new index represents further confirmation of the Life Company's business strategy, guided by sustainability and set out in the company's 10-year Business Plan, which has provided for 16 billion euro of investment in energy transition and circular economy, 90% of which is in line with the United Nations Sustainable Development Goals (SDGs).

A2A: agreement with F.lli Omini for decommissioning activities

On October 21, 2021, an agreement was signed by A2A, through its subsidiary A2A Ambiente, for the acquisition of a 30% interest in F.lli Omini S.p.A., a company specializing in demolition, aimed at creating a partnership for the decommissioning activities of industrial plants. The partnership will allow for the effective decommissioning of industrial facilities for the benefit of the territories, and will help eliminate negative impacts on the environment.

A2A, first Green Bond with investments aligned to the EU taxonomy

On October 25, 2021, A2A successfully placed a new Green Bond for 500 million euro with a duration of 12 years, with the aim of financing Green Projects aligned to the EU Taxonomy. 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 99.204% and will have an annual yield of 1.071% and a coupon of 1.000%, with a spread of 70 basis points over the mid-swap reference rate.
The net proceeds from the issue will go to finance the Eligible Green Projects: strategic projects of circular economy and energy transition - which will concern the development of renewables, the environmental sector, networks - defined within the Sustainable Finance Framework, thanks to which A2A will contribute to the ecological transition of the country. The Group verified the alignment between these green projects and the European Taxonomy - the EU regulation that lists the economic activities that can be considered sustainable - in particular the one related to the "climate change mitigation" objective. A2A also undertakes to indicate, as part of the reporting of the allocation of the proceeds of the Green Bond, the actual amount of investments aligned to the European Taxonomy that will be financed.
The issue recorded orders for 1.6 billion euro, more than 3 times the amount offered.

A2A enters Netcity and grows in services for the energy transition

On October 28, 2021, A2A, through its subsidiary A2A Energia, completed the purchase of 49% of the capital of Netcity, a Suncity Group company specializing in the supply of energy efficiency, distributed generation and electric mobility products for the consumer segment.
The operation allows to preside over the activities of procurement, installation and assistance of products and services dedicated to consumer accounts.
A2A Energia, through the entry of Netcity, will have the opportunity to expand its current portfolio of products and value added services, with a complete range of systems for heating and domestic air conditioning, solutions for electric mobility, for self-production and for energy storage, and to strengthen its control over the related installation and service processes. This agreement will also allow a further geographical expansion of the areas served by the Group also for this type of products and services.

A2A - Corporate Venture Capital

The Corporate Venture Capital (CVC) program was created in 2019 to promote the Group's innovation through investments in early stage start-ups operating in strategic businesses such as energy transition and circular economy, in line with the Business Plan. Below are the major investments made during 2021.

On November 30, 2021, investments were made in three new start-ups offering solutions dedicated to storage, energy transition and renewable energy:

- Energy Dome, an Italian company that has patented a new battery based on the thermodynamic cycle and the use of carbon dioxide ($CO2$), with high efficiency and durability, which optimizes the storage and use of energy from renewable sources;
- Enspired is an Austrian start-up that has developed a digital "energy trading as a service" (Taas) platform equipped with advanced artificial intelligence algorithms, which aims to promote energy transition and make electricity grids more flexible;
- Beem Energy, from France, offers a plug-and-play photovoltaic panel kit for self-generation of electricity in residential settings.

On December 9, 2021, A2A signed an agreement with EUREKA! Venture Sgr to enter the fund "Technology Transfer Eureka! Fund I". This fund is focused on investments in advanced materials and more generally in applications and solutions related to Materials Science and Engineering.

A2A: takes over TecnoA and continues to grow in the circular economy

On December 10, 2021, A2A acquired, through its subsidiary A2A Ambiente, 100% of TecnoA, a leading company in central and southern Italy in the treatment of industrial waste.
This operation consolidates the Group's position as a player of excellence in activities at the service of the Italian production and industrial system, which is forced to export around 1.2 million tonnes of waste every year.
This new acquisition is in line with the objectives of the business plan, which provide for strong investments, with particular focus on infrastructures able to fill the national plant gap in closing the waste management cycle, using the best available technologies.
With TecnoA, the A2A Group will have a capacity for treating industrial waste of over 800,000 tonnes per year.

A2A enters Volta Green Energy and accelerates in renewables

On December 27, 2021, A2A entered into an industrial partnership with a majority stake in Volta Green Energy. The agreement aims to accelerate and enhance the development of the renewable sector.
Volta Green is a platform dedicated to the development, asset management, Operation & Maintenance and Engineering, Procurement & Construction of renewable energy plants.
Through this transaction, A2A consolidates its position among the leading operators in the development of plants in the renewables sector in Italy, more than doubling its portfolio of assets dedicated to the generation of solar and wind energy, which now amounts to around 300 MW.

5.3 Significant events after December 31, 2021

A2A and Ardian sign binding agreements for the acquisition of wind and photovoltaic portfolios

On January 22, 2022, A2A and Ardian, the world's leading private investment company, signed a binding agreement pursuant to which A2A will acquire interests in 3New&Partners, Daunia Calvello and Daunia Serracapriola, companies that comprise a portfolio of wind farms in Italy with a total capacity of 335 MW (195 MW pro-rata with respect to the interest held by Ardian in this portfolio), for an equity value of 265 million euro. The two parties have also signed a second binding agreement for a further portfolio, 4New, wholly owned by a fund managed by Ardian, consisting of wind and photovoltaic plants for a total of 157 MW of which 117 MW located in Italy and the remaining 40 MW in Spain: the acquisition by A2A provides for an equity value of 187 million euro.

A2A: business plan update

On January 27, 2022, the Board of Directors of A2A, chaired by Marco Patuano, examined and approved the update of the 2021-2030 Business Plan, which reinforces the commitment to decarbonization, ahead of the targets set by COP26, with a further two billion euro of investment.

Circular economy and energy transition are confirmed as the two pillars of the Plan that encapsulate the Group's concrete actions, to which all Business Units contribute.
The main new elements of the Plan Update are in line with global carbon footprint reduction goals. To encourage the adoption of this model of sustainable mobility, A2A has quadrupled the installation of planned infrastructure compared with the last Plan: 24 thousand electric recharging points by 2030 with a focus on low power (up to 7kW) and high power (over 50 kW), to encourage both a slow (e.g. overnight) and fast (similar to traditional refuelling stations) delivery mode. For mobility segments the evolution of which is not foreseen towards electricity, A2A wants to make available green solutions such as green hydrogen and bio-LNG. The Group plans to develop more than 60 biomethane plants, at least 5 of which with liquefaction to obtain bio-LNG, while for the production of hydrogen it will be possible to exploit continuously produced energy sources such as waste-to-energy plants, with a decentralized business model based on local ecosystems serving industry and heavy transport.

A2A awarded 5.4 GW in the third capacity market auction called by Terna

On February 23, 2021, A2A, in the third capacity market auction called by Terna for the delivery year 2024, was awarded a total of 5.4 GW of capacity at national level which, with a mix of technological solutions including gas-fired plants, electrochemical storage and renewable source plants (hydroelectric and photovoltaic), contributes to ensuring the flexibility and decarbonization of the Italian electricity system, in line with the objectives of the A2A Business Plan.

For existing capacity, the annual contract has an award price of 33,000 euro/MW/year. The new capacity provides for a 15-year contract with an award price of 70,000 euro/MW/year for capacity already authorized, of 48,110 euro/MW/year for that yet to be authorized.

A2A returns to the capital market and places a new sustainable bond: demand seven times the issue offer

Although in a complex context, dictated by the serious crisis unleashed on financial markets by the war in Ukraine, on March 9, 2022, the company placed a senior unsecured bond maturing in March 2028.

A maximum amount of 500 million euro has been set for the bond, which has an expected rating of Baa2 from Moody's and BBB from S&P. This is a sustainable bond tied to installed capacity from renewable sources. Orders received reached 3.5 billion, which is seven times the supply. The securities, intended for institutional investors, were issued at a price of 99.30% of nominal value and will have an annual yield of 1.622% and a coupon of 1.5% with a spread of 100 basis points over mid-swap.

5.4 Outlook for operations

Forecasts for 2022, as contained in the 2021-2030 Strategic Plan and presented to the market on January 27, 2021, envisage Ebitda of between 1.40 and 1.45 billion euro and Group Net Income, net of non-recurring items, of between 330 and 370 million euro.
These forecasts are made prior to and do not incorporate the possible turmoil that the Russia-Ukraine conflict could generate directly and indirectly in the markets in which the Group operates and that cannot be estimated at present, as it depends not only on the severity and duration of the conflict, but also on potential actions to mitigate some of these risks that could be approved at governmental or EU level.
The A2A Group constantly monitors the evolution of the situation and, as it has done in other crisis situations (for example in the case of the recent COVID-19 pandemic), identifies possible mitigation actions aimed at greater protection of the economic and financial situation.
In this sense, more than 75% of fixed-price production (Renewables and WTE), and 35% of thermoelectric production (CCGT) have been covered so far, thus reducing the possible negative effects of a fall in prices.
In order to face possible scenarios of financial tension, it should be noted that the Group's solid liquidity position, also supported by committed and uncommitted back-up lines (at March 14, 2022 equal to 1.7 billion euro), is allowing managing positions on the commodities market as well as any temporary increases in working capital due to price increases. A2A has recently successfully issued a 500 million euro bond in a very difficult market context in addition to subscribing to medium-term bilateral credit lines, demonstrating the Group's ability to access capital and banking markets.

5.5 Proposal for the allocation of net profit for the year ended December 31, 2021 and the distribution of a dividend

The annual financial statements of A2A S.p.A. for the year ended December 31, 2021 show a net profit of 485,477,683.00 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 485,477,683.00 euro as follows:
- 24,273,884.00 euro to the legal reserve;
- 283,214,637.00 euro as an ordinary dividend payable to shareholders to ensure a remuneration of 0.0904 euro for each outstanding ordinary share;
- 177,989,162.00 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 25, 2022, with ex-dividend date May 23, 2022 and record date May 24, 2022.

The Board of Directors

6

Analysis of main sectors of activities

6.1 Summary of results sector by sector

millions of euro	GENERATION AND TRADING 01 01 2021 12 31 2021	GENERATION AND TRADING 01 01 2020 12 31 2020 Restated	MARKET 01 01 2021 12 31 2021	MARKET 01 01 2020 12 31 2020 Restated
Revenues	**8,095**	**3,861**	**3,885**	**2,515**
- of which inter-sector	*2,263*	*1,209*	*152*	*105*
Labour costs	**85**	**87**	**53**	**49**
Gross operating income - EBITDA	**368**	**269**	**214**	**202**
% of revenues	*4.5%*	*7.0%*	*5.5%*	*8.0%*
Depreciation, amortization, provisions and write-downs	**(208)**	**(170)**	**(76)**	**(60)**
Net operating income - EBIT	**160**	**99**	**138**	**142**
% of revenues	*2.0%*	*2.6%*	*3.6%*	*5.6%*
Result from non-recurring transactions				
Financial balance				
Result before taxes				
Income taxes				
Result after taxes from operating activities				
Net result from discontinued operations				
Minorities				
Group result of the year				
Gross investments (1)	**144**	**76**	**73**	**53**

(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 income statement data from January 1 to December 31, 2020 have been reallocated to make them homogeneous to the results by “Business Unit” from January 1 to December 31, 2021.
Moreover, the income statement items were reclassified for 2020, in compliance with IFRS5, to the item “Net result from assets sold/held for sale” to make them homogeneous with the values in the 2021 financial statements.
(*) The Networks Business Unit has changed its name to the Smart Infrastructures Business Unit, as per the Business Plan of January 28, 2022.

	WASTE		SMART INFRASTRUCTURES (*)		CORPORATE		ELIMINATIONS		INCOME STATEMENT	
	01 01 2021 12 31 2021	01 01 2020 12 31 2020 Restated	01 01 2021 12 31 2021	01 01 2020 12 31 2020 Restated	01 01 2021 12 31 2021	01 01 2020 12 31 2020 Restated	01 01 2021 12 31 2021	01 01 2020 12 31 2020 Restated	01 01 2021 12 31 2021	01 01 2020 12 31 2020 Restated
	1,260	**1,111**	**1,280**	**1,136**	**301**	**264**	**(3,272)**	**(2,039)**	**11,549**	**6,848**
	229	*133*	*367*	*344*	*261*	*248*	*(3,272)*	*(2,039)*		
	337	**326**	**105**	**110**	**141**	**131**			**721**	**703**
	341	**282**	**538**	**471**	**(33)**	**(24)**			**1,428**	**1,200**
	27.1%	*25.4%*	*42.0%*	*41.5%*	*(11.0%)*	*(9.1%)*			*12.4%*	*17.5%*
	(159)	**(171)**	**(274)**	**(206)**	**(51)**	**(39)**			**(768)**	**(646)**
	182	**111**	**264**	**265**	**(84)**	**(63)**			**660**	**554**
	14.4%	*10.0%*	*20.6%*	*23.3%*	*(27.9%)*	*(23.9%)*			*5.7%*	*8.1%*
									-	**-**
									(70)	**(81)**
									590	**473**
									(36)	**(99)**
									554	**374**
									(4)	**(6)**
									(46)	**(4)**
									504	**364**
	273	**174**	**516**	**389**	**77**	**51**	**(9)**	**(5)**	**1,074**	**738**

	GENERATION AND TRADING		MARKET	
millions of euro	12 31 2021	12 31 2020	12 31 2021	12 31 2020
Tangible assets	2,205	2,099	42	62
Intangible assets	154	85	286	311
Trade receivables and current financial assets	2,428	1,017	1,406	862
Trade payables and current financial liabilities	2,529	1,007	952	553

It should be noted that the balance sheet data at December 31, 2020 have been reallocated to make them homogeneous to the results by "Business Unit" at December 31, 2021.

(*) The Networks Business Unit has changed its name to the Smart Infrastructures Business Unit, as per the Business Plan of January 28, 2022.

	WASTE		SMART INFRASTRUCTURES (*)		CORPORATE		ELIMINATIONS		TOTAL GROUP	
	12 31 2021	12 31 2020	12 31 2021	12 31 2020	12 31 2021	12 31 2020	12 31 2021	12 31 2020	12 31 2021	12 31 2020
	1,132	908	2,146	2,010	196	229	(133)	(146)	**5,588**	**5,162**
	125	66	2,205	2,197	125	146	230	(68)	**3,125**	**2,737**
	384	413	490	451	75	232	(1,483)	(934)	**3,300**	**2,041**
	373	354	397	461	864	697	(1,475)	(932)	**3,640**	**2,140**

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

Waste Business Unit

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

Smart Infrastructures Business Unit[2]

The Smart Infrastructures Business Unit develops and manages the infrastructures functional to the wide range of services provided by the Group, focusing on technology and innovation.
In particular, the Business Unit's activity mainly concerns the development and technical-operational management of electricity distribution networks, natural gas transport and distribution networks and the related metering service, characterized by important technological evolutions thanks to the use of smart meters. It manages the entire integrated water cycle (water collection, aqueduct management, water distribution, sewerage management, purification). The activity is also aimed at the sale of heat and electricity produced by cogeneration plants (mostly owned by the Group), through district heating networks and ensures the operation and maintenance of cogeneration plants and district heating networks. Also included are the activities related to the management services for heating plants owned by third parties (heat management services).
The Smart Infrastructures Business Unit also develops infrastructures in the field of telecommunications, designs solutions and applications aimed at creating new models of cities and territories and improving the quality of life of citizens.
It should be noted that from January 2021, the Business Unit develops and manages public lighting and traffic regulation systems; finally, it builds and manages a network of recharging infrastructures functional to the electrification of transport.

Corporate

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

1 Total installed capacity of 9.2 GW.
2 The Networks Business Unit has changed its name to the Smart Infrastructures Business Unit, as per the Business Plan of January 28, 2022.

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

Results by sector 2021

millions of euro	Generation and Trading	Market	Waste	Smart Infrastructures	Corporate	Eliminations and adjustments	Total
Revenues from the sale of goods and services	8,006	3,849	1,207	1,248	284	(3,242)	11,352
Other revenue and income	89	36	53	32	17	(30)	197
Total revenues	**8,095**	**3,885**	**1,260**	**1,280**	**301**	**(3,272)**	**11,549**
Labour costs	85	53	337	105	141		721
Gross Operating Margin - EBITDA	**368**	**214**	**341**	**538**	**(33)**		**1,428**
Depreciation, amortization, provisions and write-downs	208	76	159	274	51		768
Net Operating Income - EBIT	**160**	**138**	**182**	**264**	**(84)**	**-**	**660**
Capex	**144**	**73**	**273**	**516**	**77**	**(9)**	**1,074**

Results by sector 2020

millions of euro	Generation and Trading	Market	Waste	Smart Infrastructures	Corporate	Eliminations and adjustments	Total
Revenues from the sale of goods and services	3,746	2,501	1,084	1,105	242	(2,023)	6,655
Other revenue and income	115	14	27	31	22	(16)	193
Total revenues	**3,861**	**2,515**	**1,111**	**1,136**	**264**	**(2,039)**	**6,848**
Labour costs	87	49	326	110	131		703
Gross Operating Margin - EBITDA	**269**	**202**	**282**	**471**	**(24)**		**1,200**
Depreciation, amortization, provisions and write-downs	170	60	171	206	39		646
Net Operating Income - EBIT	**99**	**142**	**111**	**265**	**(63)**	**-**	**554**
Capex	**76**	**53**	**174**	**389**	**51**	**(5)**	**738**

6.3 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:

368
mln €
EBIDTA
+36.8% compared to 2020

144
mln €
CAPEX
76 mln in 2020 (+89.5%)

157
GWh
PRODUCTION OF COAL-FIRED PLANTS
(+37.7% vs 2020)

13,921
GWh
THERMOELECTRIC PRODUCTION FROM OTHER FACILITIES
(+14.9% vs 2020)

4,544
GWh
PRODUCTION FROM RENEWABLE SOURCES OF WHICH 313 GWh PHOTOVOLTAIC AND WIND
(129 GWh in 2020)

318,075
GWh
ENERGY DEMAND IN ITALY
(+5.6% vs 2020)

125.0
€/MWh
SINGLE NATIONAL PRICE
(39 €/MWh in 2020)

+0.6
€/MWh
CLEAN SPARK SPREAD
(1.3 €/MWh in 2020)

Operating figures

Net electricity production GWh	12 31 2021	12 31 2020	CHANGE	% 2021/2020
Net thermoelectric production	**14,078**	**12,233**	**1,845**	**15.1%**
- CCGT	12,459	11,461	998	8.7%
- Oil	1,462	658	804	n.s.
- Coal	157	114	43	37.7%
Net production from Renewable Sources	**4,544**	**4,537**	**7**	**0.2%**
- Hydroelectric	4,231	4,408	(177)	(4.0%)
- Photovoltaic	291	127	164	n.s.
- Wind	22	2	20	n.s.
TOTAL NET PRODUCTION	**18,622**	**16,770**	**1,852**	**11.0%**

The Group's electricity output stood at 18,622 GWh, an increase of 1,852 GWh (+11%) on the previous year. The increased demand for energy as a result of the economic recovery experienced in 2021 was met by increased thermoelectric generation and output from new renewable sources.
In particular, thermoelectric production in the year under review amounted to 14,078 GWh (12,233 GWh at December 31, 2020). The growth recorded (+15.1%) is linked to the higher output of combined cycle plants, and the San Filippo del Mela plan under the essentiality regime. The high energy requirements and peaks in demand, especially in December, also led Terna to request the temporary reactivation of the Monfalcone coal-fired plant.

Production from renewable sources in 2021 was in line with the previous year: the lower hydroelectric production (-4%), linked to the low rainfall of the year, was offset by the significant contribution of new photovoltaic (+164 GWh) and wind power (+20 GWh) renewable sources thanks to the new photovoltaic (+173 MW) and wind power (8.2 MW) capacity acquired by the Group.

Economic figures

millions of euro	01 01 2021 12 31 2021	01 01 2020 12 31 2020	CHANGE	% 2021/2020
Revenues	8,095	3,861	4,234	109.7%
Gross Operating Margin - EBITDA	368	269	99	36.8%
% of Revenues	4.5%	7.0%		
Depreciation, amortization, provisions and write-downs	(208)	(170)	(38)	22.4%
Net Operating Income - EBIT	160	99	61	61.6%
% of Revenues	2.0%	2.6%		
Capex	144	76	68	89.5%
FTE	1,051	1,068	(17)	(1.6%)
Labour costs	85	87	(2)	(2.3%)

Revenues amounted to 8,095 million euro, an increase of 4,234 million euro (+109.7%) compared to the previous year. The change was mainly due to the extraordinary increase in electricity and gas prices and, to a lesser extent, to higher volumes sold and brokered, particularly on the electricity market.

The Gross Operating Margin of the Generation and Trading Business Unit amounted to 368 million euro, an increase of 99 million euro compared to the previous year. Net of the non-recurring items in the two periods considered (+10 million euro in 2021 and +8 million euro in 2020), the Ordinary EBITDA increased by 97 million euro.

The positive change is mainly attributable to:
- the extraordinary results achieved in the ancillary services market ("MSD"), thanks to the opportunities that emerged as a result of Terna's requests for exceptionally critical grid conditions in the last few months of the year;
- the excellent performance of the trading portfolio;
- the contribution of newly acquired photovoltaic and wind power plants.

The exceptional change in the wholesale price of electricity (PUN), which characterised both 2021, with an upward trend, and 2020, with a downward trend, did not produce significant results for the margins of the industrial electricity portfolio following the hedging policies adopted by the Group, which significantly mitigated the effects.

The positive impacts were partly offset by:
- lower hydroelectric production;
- negative effects of the energy scenario on the gas portfolio;
- higher charges for hydroelectric fees due to both the variable and free energy to be paid and the fixed component for some plants.

Depreciation, amortization, provisions and write-downs totalled 208 million euro (170 million euro at December 31, 2020). The change was mainly due to newly acquired companies in the renewable energy sector, amortization relating to investments made during the year and higher provisions for risks net of releases.

As a result of the above changes, Net Operating Income amounted to 160 million euro (99 million euro at December 31, 2020).

Capital expenditure in the year under review amounted to approximately 144 million euro and included extraordinary maintenance work of 87 million euro, of which 64 million euro at thermoelectric plants and 19 million euro at the Group's hydroelectric plants.
Furthermore, in 2021, development work totalling 54 million euro was carried out, mainly aimed at guaranteeing the coverage of peak demand and the balancing of fluctuating energy requirements in the electricity grid (gas turbines at the combined-cycle plants in Cassano and Chivasso and the start-up of projects for endothermic engines in Cassano) in order to contribute to the adequacy and safety of the national electricity system.
Adjustments to standards amounted to around 3 million euro.

In 2021, FTEs stood at 1,051 units (1,068 FTEs at December 31, 2020). The negative change is due to the continuation of the efficiency plan implemented for some hydroelectric and thermoelectric power generation plants (Monfalcone).

6.4 Market Business Unit

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

214
mln €
EBIDTA
+5.9% compared to 2020

73
mln €
CAPEX
53 mln in 2020

18,426
GWh
ELECTRICITY SALES
(+22.7% vs 2020)

2,711
Mcm
GAS SALES
(+14.6% vs 2020)

1,383
(#/1000) POD
RETAIL MARKET ELE CUSTOMERS FREE MARKET: 938 POD
(+14.0% compared to 2020)

1,573
(#/1000) PDR
RETAIL MARKET GAS CUSTOMERS FREE MARKET: 935 PDR
(+7.7% compared to 2020)

Operating figures

Electricity	12 31 2021	12 31 2020	CHANGE	% 2021/2020
Electricity Sales (GWh)				
Electricity Sales Free Market (GWh)	15,968	13,587	2,381	17.5%
Electricity Sales under Greater Protection Scheme (GWh)	983	1,213	(230)	(19.0%)
Electricity Sales Safeguard Market (GWh)	1,475	212	1,263	n.s.
Total Electricity Sales (GWh)	**18,426**	**15,012**	**3,414**	**22.7%**
POD Electricity				
POD Electricity Free Market (#/1000)	938	823	115	14.0%
POD Electricity under Greater Protection Scheme (#/1000)	382	447	(65)	(14.5%)
POD Electricity under Safeguarding Scheme (#/1000)	63		63	n.s.
Total POD Electricity (#/1000)	**1,383**	**1,270**	**113**	**8.9%**

Gas	12 31 2021	12 31 2020	CHANGE	% 2021/2020
Gas Sales (Mcm)				
Gas Sales Free Market (Mcm)	2,146	1,810	336	18.6%
Gas Sales under Protection Scheme (Mcm)	565	555	10	1.8%
Total Gas Sales (Mcm)	**2,711**	**2,365**	**346**	**14.6%**
PDR Gas				
PDR Gas Free Market (#/1000)	935	868	67	7.7%
PDR Gas under Greater Protection Scheme (#/1000)	638	746	(108)	(14.5%)
Total PDR Gas (#/1000)	**1,573**	**1,614**	**(41)**	**(2.5%)**

The quantities are stated gross of losses.
The data related to the POD and PDR does not include the numbers relating to large customers.

In 2021, the Market Business Unit recorded 18,426 GWh of electricity retail sales, up 22.7% on the previous year. The increase recorded was attributable to the higher quantities sold in the free market, in particular to large customers, the greater contribution of the safeguard market and the sales of the AEB Group, consolidated since November 2020.
Gas sales to end markets, equal to 2,711 million cubic meters, showed a growth of 14.6% compared to 2020, partly due to higher consumption linked to the economic recovery recorded during the year and the average colder temperatures, and partly to the consolidation of AEB.
There was also an increase in the number of mass-market free market customers, both in the electricity and gas segments (183 thousand more than at the end of 2020).

Economic figures

millions of euro	01 01 2021 12 31 2021	01 01 2020 12 31 2020	CHANGE	% 2021/2020
Revenues	3,885	2,515	1,370	54.5%
Gross Operating Margin - EBITDA	214	202	12	5.9%
% of Revenues	5.5%	8.0%		
Depreciation, amortization, provisions and write-downs	(76)	(60)	(16)	26.7%
Net Operating Income - EBIT	138	142	(4)	(2.8%)
% of Revenues	3.6%	5.6%		
Capex	73	53	20	37.7%
FTE	907	815	92	11.3%
Labour costs	53	49	4	8.2%

Revenues amounted to 3,885 million euro (2,515 million euro at December 31, 2020), up 54.5% following the consolidation of the AEB Group and the increase in unit prices and higher quantities sold of both electricity and gas.

EBITDA of the Market Business Unit equalled 214 million euro (202 million euro at December 31, 2020). Net of the non-recurring items recorded in the two comparison periods (+14 million euro in 2021 and +3 million euro in 2020), the ordinary Gross Operating Margin increased by 1 million euro.

The change of 1 million euro (+1%) is due to the increase in margins recorded in the retail segment for:
- the consolidation of the AEB Group;
- the increase in the number of mass-market electricity customers;
- increased sales, particularly to large customers in the market.

This growth has been scaled back:
- the drop in unit margins on sales in the free electricity market due to particularly high imbalance charges as a result of the substantial increase in energy prices in the year, against volumes that were not misaligned with previous years;
- higher operating costs than those incurred last year due to a slowdown in activities following the spread of COVID-19.

Depreciation, amortization, provisions and write-downs totalled 76 million euro (60 million euro at December 31, 2020) due to higher depreciation, amortization, provisions and write-downs of receivables.

As a result of the above changes, Net Operating Income amounted to 138 million euro (142 million euro at December 31, 2020).

In 2021, the Market Business Unit investments amounted to 73 million euro. These investments concerned:
- about 59 million euro for the energy retail segment for expenses for the acquisition of new customers and for evolutionary maintenance and development work on the hardware and software platforms, aimed at supporting billing and marketing activities (acquisition of a dynamic pricing platform) and the start-up of NEN (the A2A Group's full-digital start-up for electricity and gas sales);
- 14 million for the energy solution segment for energy efficiency projects.

In 2021, FTEs stood at 907 units (815 FTEs at December 31, 2020). The change is due partly to the change in scope (consolidation of the AEB Group) and partly to the higher number of people hired to strengthen, in line with development objectives, traditional and innovative areas of activity, such as the hiring of the new company NEN.

6.5 Waste Business Unit

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

341
mln €
EBIDTA
+20.9% compared to 2020

273
mln €
CAPEX
174 mln in 2020 (+56.9%)

1,640
GWht
HEAT SOLD
(+5.3% vs 2020)

2,082
GWh
ELECTRICITY SOLD
(+6.6% vs 2020)

3,423
Kton
WASTE DISPOSED OF
(+2.2% vs 2020)

OF WHICH:

988
Kton
MATERIAL RECOVERY DISPOSALS
(+10.1% vs 2020)

1,481
Kton
ENERGY RECOVERY DISPOSALS
(-0.5% vs 2020)

Operating figures

	12 31 2021	12 31 2020	CHANGE	% 2021/2020
Waste collected (Kton)	1,893	1,660	233	14.0%
Residents served (#/1000)	4,065	4,117	(52)	(1.3%)
Electricity sold (GWh)	2,082	1,954	128	6.6%
Heat sold (GWht)*	1,640	1,557	83	5.3%

(*) Quantities at the plant entrance.

In 2021, the quantity of waste collected, equal to 1,893 thousand tonnes, was up by 14% compared to the previous year, penalized by the slowdown in economic activities following the spread of COVID-19, especially in the City of Milan. The consolidation of AEB (+157 thousand tonnes) also contributed to the change in the period.
The quantities of electricity rose by 6.6% thanks to the contribution of the newly acquired companies (Agripower, Agritre and Fragea), the increased productivity of the Acerra waste-to-energy plant and the greater availability of the Parona waste-to-energy plant. Heat produced is up 5.3% as a result of higher quantities required by the district heating segment.

Waste disposed of (Kton)	12 31 2021	12 31 2020	CHANGE	% 2021/2020
Urban waste disposal	**2,656**	**2,662**	**(6)**	**(0.2%)**
- WTE	1,364	1,375	(11)	(0.8%)
- Landfill	1	2	(1)	(50.0%)
- Treatment plants	1,291	1,285	6	0.5%
Industrial disposals	**767**	**687**	**80**	**11.6%**
- WTE	75	66	9	13.6%
- Landfill	-	21	(21)	(100.0%)
- Treatment plants	692	600	92	15.3%
TOTAL	**3,423**	**3,349**	**74**	**2.2%**

The quantities reported are net of intra-group disposals.

Net waste disposed of rose by 2.2%, thanks to an increase in disposals at treatment plants, especially industrial ones; on the other hand, the quantities treated in waste-to-energy plants registered a slight reduction due to reduced availability of the Brescia waste-to-energy plant (more days of stoppage for maintenance).
The growth related exclusively to the disposal of waste intended for material recovery (significant increase in bulky items and soil).

Economic figures

millions of euro	01 01 2021 12 31 2021	01 01 2020 12 31 2020	CHANGE	% 2021/2020
Revenues	1,260	1,111	149	13.4%
Gross Operating Margin - EBITDA	341	282	59	20.9%
% of Revenues	27.1%	25.4%		
Depreciation, amortization, provisions and write-downs	(159)	(171)	12	(7.0%)
Net Operating Income - EBIT	182	111	71	64.0%
% of Revenues	14.4%	10.0%		
Capex	273	174	99	56.9%
FTE	6,470	6,046	424	7.0%
Labour costs	337	326	11	3.4%

In 2021, the Waste Business Unit recorded revenue of 1,260 million euro, an increase of 13.4% compared with the previous year (1,111 million euro at December 31, 2020) mainly due to the contribution of the companies acquired in the previous year (Agritre operating from March 2020, AEB and Fragea consolidated from November 2020) and in the year, (Agripower), higher revenue from material recovery (particularly paper sales), electricity sales and waste disposal from industrial treatment plants.

The EBITDA of the Waste Business Unit equalled 341 million euro (282 million euro at December 31, 2020).
Net of non-recurring items (+8 million euro in 2021, 1 million euro in 2020), the Business Unit's ordinary Gross Operating Margin was 333 million euro, an increase of 52 million euro compared to December 31, 2020.

All areas of the business unit made a positive contribution to the result for the year thanks to:
- the incremental contribution of biomass and biogas power generation plants acquired in the previous year (Agritre and Fragea) and in 2021 (Agripower);
- the positive dynamics of electricity and heat transfer prices;
- the increase in the price of delivering waste similar to municipal waste;
- the greater quantities of industrial waste disposed of;
- the increase in paper prices due to high demand in the European market;
- the incremental contribution from the consolidated AEB Group as of November 2020.

Depreciation, amortization, provisions and write-downs equalled 159 million euro (171 million euro at December 31, 2020). The change is the combined effect of higher amortization and depreciation relating to newly acquired companies and investments made during the year and lower provisions for risks and charges compared with the previous year.

As a result of these changes, Net Operating Income totalled 182 million euro (111 million euro at December 31, 2020).

Investments in 2021 amounted to 273 million euro and concerned:
- development work amounting to 203 million euro, of which 123 million euro relating to waste-to-energy plants (in particular 76 million euro for the construction of the new Parona plant and 24 million euro for the flue gas purification line of the Brescia waste-to-energy plant) and 77 million euro to treatment plants (38 million euro for OFMSW plants);
- 70 million euro in maintenance work on waste-to-energy plants (29 million euro), treatment plants (21 million euro) and the collection sector (20 million euro).

In 2021, the FTE of the Waste Business Unit amounted to 6,470 units (6,046 FTE in 2020).
The change was linked to changes in the scope of consolidation (consolidation of the AEB Group, acquisition of Agripower and winning new tenders for the management of collection services) and to recruitment planned for 2020 and postponed to 2021.

6.6 Smart Infrastructures Business Unit

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

538
mln €
EBIDTA
+14.2% compared to 2020

516
mln €
CAPEX
389 mln in 2020 (+32.6%)

1,578
M€
RAB GAS
(+2.6% vs 2020)

753
M€
RAB ELECTRICITY
(+8.8% vs 2020)

411
M€
RAB WATER SERVICES
(+8.4% vs 2020)

3,178
GWht
HEAT SOLD
(+12.1% vs 2020)

Operating figures

Networks

	12 31 2021	12 31 2020	CHANGE	% 2021/2020
Electricity distributed (GWh)	11,423	10,673	750	7.0%
Gas distributed (Mcm)	3,448	2,996	452	15.1%
Water distributed (Mcm)	76	77	(1)	(1.3%)
RAB Electricity (M€) (*)	753	692	61	8.8%
RAB Gas (M€) (*)	1,578	1,538	60	2.6%
RAB Water (M€) (*)	411	379	32	8.4%

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

The quantities of electricity and gas distributed by the Smart Infrastructures Business Unit increased by 7% and 15.1%, respectively, compared with the previous year, which had been significantly impacted by the slowdown in economic activities caused by the measures adopted to counter the health emergency. The quantities of water distributed amounted to 76 Mcm, slightly down on the previous year.
In 2021, the RABs relating to electricity distribution amounting to 753 million euro and gas distribution amounting to 1,578 million euro were, as a result of the high investments made, up by 8.8% and 2.6% respectively compared with the RABs in 2020, including the shares relating to AEB.
The RAB for water services increased by 8.4% thanks to the capex made.

Heat

GWht	12 31 2021	12 31 2020	CHANGE	% 2021/2020
SOURCES				
Plants in:	**1,554**	**1,369**	**185**	**13.5%**
- Lamarmora	385	375	10	2.7%
- Famagosta	95	81	14	17.3%
- Tecnocity	72	64	8	12.5%
- Other plants	1,002	849	153	18.0%
Purchases from:	**2,137**	**2,048**	**89**	**4.3%**
- Third parties	473	472	1	0.2%
- Other Business Units	1,664	1,576	88	5.6%
TOTAL SOURCES	**3,691**	**3,417**	**274**	**8.0%**
USES				
Sales to end customers	3,178	2,836	342	12.1%
Distribution losses	513	581	(68)	(11.7%)
TOTAL USES	**3,691**	**3,417**	**274**	**8.0%**
Electricity from cogeneration	297	298	(1)	(0.3%)

Note:
- The figures only refer to district heating and include cold sales. Sales relating to heat management are not included.
- Purchases include the quantities of heat purchased from the Waste Business Unit.

Heat sales by the Smart Infrastructures Business Unit in the year in question amounted to 3,178 GWht, an increase of 12.1% over the volumes sold in the previous year. The increase recorded is attributable not only to the acquisition of new customers and the contribution of AEB Group sales, but also to the colder temperatures recorded in 2021 compared to the previous year.

Economic figures

millions of euro	01 01 2021 12 31 2021	01 01 2020 12 31 2020	CHANGE	% 2021/2020
Revenues	1,280	1,136	144	12.7%
Gross Operating Margin - EBITDA	538	471	67	14.2%
% of Revenues	42.0%	41.5%		
Depreciation, amortization, provisions and write-downs	(274)	(206)	(68)	33.0%
Net Operating Income - EBIT	264	265	(1)	(0.4%)
% of Revenues	20.6%	23.3%		
Capex	516	389	127	32.6%
FTE	3,052	2,918	134	4.6%
Labour costs	105	110	(5)	(4.5%)

The Smart Infrastructures Business Unit's revenue for the period amounted to 1,280 million euro (1,136 million euro at December 31, 2020, +12.7%). The change is due to the incremental contribution deriving from the consolidation of AEB, higher revenues from district heating, the water cycle and increased services compared to the same period last year.

The Gross Operating Margin of the Smart Infrastructures Business Unit in 2021 was 538 million euro (471 million euro at December 31, 2020).
Net of non-recurring items (+7 million euro in 2021; +10 million euro in 2020), the Business Unit's ordinary Gross Operating Margin was 531 million euro, up 70 million euro (+15.2%) compared to 2020.
The change in margins is distributed as follows:

- electricity and gas distribution networks (+41 million euro): increase linked to the change in the scope of consolidation, higher revenues admitted for regulatory purposes and lower operating costs;
- district heating (+23 million euro): margins increased mainly due to higher quantities sold as a result of commercial development and cooler average temperatures compared to the previous year, as well as higher services related to the activity following the superbonus measures;
- water cycle (+10 million euro): higher revenues due to the tariff increases approved by the sector Authority;
- Smart City (-4 million euro): conclusion of activities started in previous years relating to the construction of infrastructures for laying fibre optic cables and lower margins due to the transfer of the telecommunications business unit to the corporate.

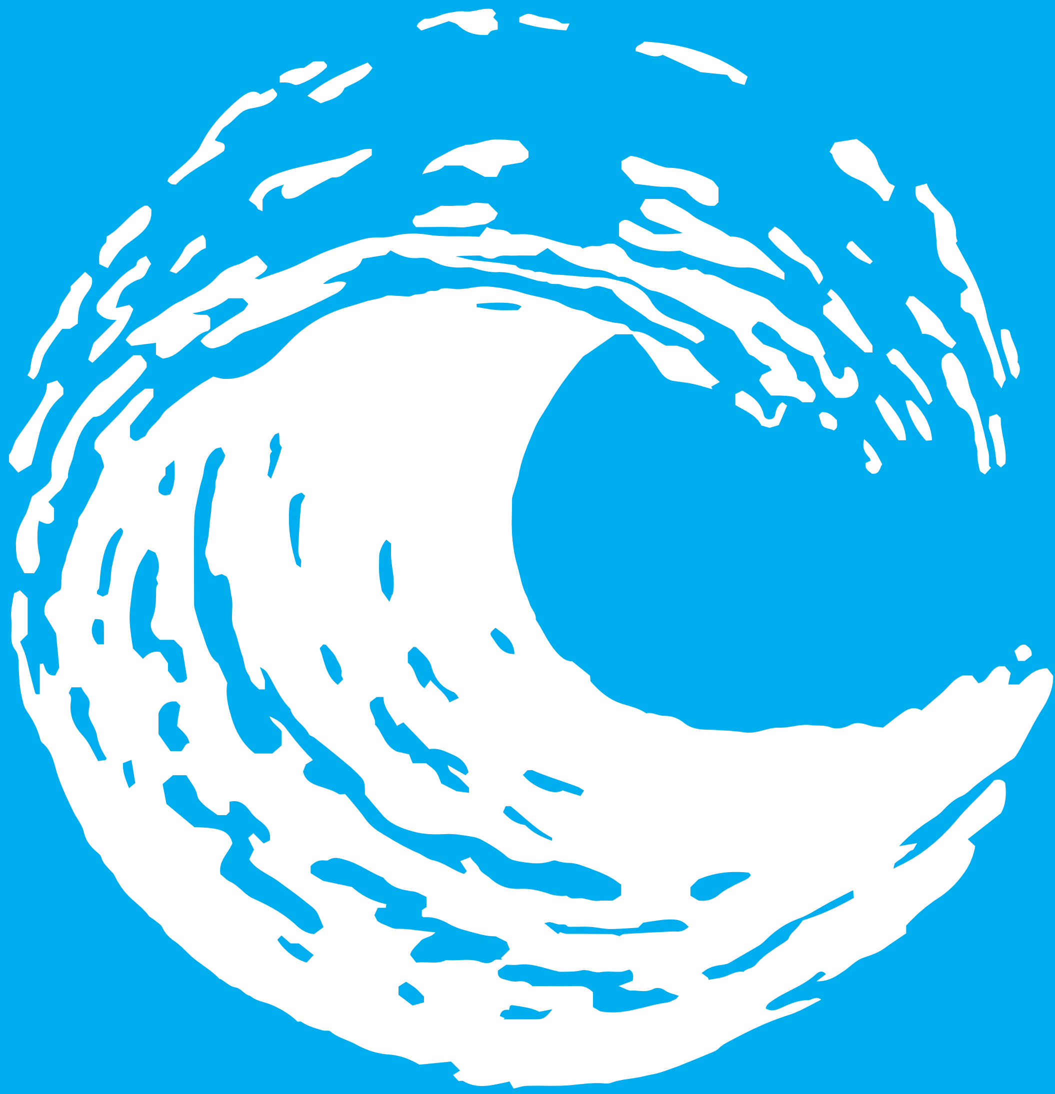
Depreciation, amortization, provisions and write-downs equalled 274 million euro (206 million euro at December 31, 2020). The change is attributable to higher depreciation and amortization due to both the consolidation of AEB and the capex made in 2020.

As a result of the above changes, Net Operating Income amounted to 264 million euro, in line with the previous year (265 million euro at December 31, 2020).

Investments in the period in question amounted to 516 million euro and regarded:

- in the electricity distribution segment, development and maintenance work on plants and in particular the connection of new users, maintenance work on secondary cabins, the extension and refurbishment of the medium and low voltage network, the maintenance and upgrading of primary plants and investments in the launch of the 2G smart meter project (183 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 (126 million euro);
- in the integrated water cycle sector, maintenance and development work carried out on the water transport and distribution network, as well as works and restoration works on the sewer networks and purification plants (95 million euro);
- district heating and heat management segment: development and maintenance of plants and networks for a total of 86 million euro.
- in the public lighting sector for new projects (15 million euro);
- in the Smart City segment, mainly laying fibre optics, radio frequencies and data centres (10 million euro);
- in the e-mobility sector for the installation of new electric energy recharging stations (1 million euro).

In 2021, FTEs stood at 3,052 units (2,918 FTEs at December 31, 2020). The change was related to the consolidation of the AEB Group and the undertaking of new investment projects.



6.7 Corporate

Economic figures

millions of euro	01 01 2021 12 31 2021	01 01 2020 12 31 2020	CHANGE	% 2021/2020
Revenues	301	264	37	14.0%
Gross Operating Margin - EBITDA	(33)	(24)	(9)	37.5%
% of Revenues	(11.0%)	(9.1%)		
Depreciation, amortization, provisions and write-downs	(51)	(39)	(12)	30.8%
Net Operating Income - EBIT	(84)	(63)	(21)	33.3%
% of Revenues	(27.9%)	(23.9%)		
Capex	77	51	26	51.0%
FTE	1,541	1,405	136	9.7%
Labour costs	141	131	10	7.6%

The Gross Operating Margin, corresponding to the corporate structure costs not charged back to the various Group companies in 2021 amounted to -33 million euro (-24 million in 2020).
The negative change in margins is due to the greater weight in the year of costs not charged back compared to total expenses incurred by the Corporate.

Depreciation, amortization, provisions and write-downs equalled 51 million euro (39 million euro at December 31, 2020). The change was driven by higher depreciation and amortization for capex during the year.

After depreciation, amortization, provisions and write-downs there was a Net operating loss of 84 million euro (a net operating loss of 63 million euro at December 31, 2020).

Capex totalled 77 million euro, including 49 million euro for information systems and 22 million euro for buildings.

In the year in question, FTEs amounted to 1,541 units, an increase of 136 units compared to 2020, due to the change in the scope of consolidation of AEB, the postponement of recruitment planned for 2020 and additions to strengthen some areas of activity, in line with the Group's development needs and objectives.


User Registration
Confirmed
Original Trading View Depth
123/233
1/345
Test Status Controller
Visualisation
Crit.
GNumber
RNumber
BNumber

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, 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. 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, ISO 14001 and ISO 45001 certifications of Group companies.

Set out below is a description of the main risks and uncertainties to which the Group is exposed.

The geo-political tensions related to the crisis between Russia and Ukraine and the health emergency, having possible repercussions on more than one type of risk, are discussed in this opening section.

Impacts of the Russia-Ukraine conflict

The ongoing conflict between Russia and Ukraine is further increasing the volatility of energy commodity prices, which were already at record levels before the outbreak of the war. In addition to the direct impacts on the production and sale of electricity and gas, such a price increase could lead to a general increase in inflation with particular reference to the prices of oil derivatives and foodstuffs, as well as tensions on financial markets, technological impacts and a possible increase in cyber-attacks.

The A2A Group, as part of its industrial activity of generating energy carriers and marketing them on a wholesale basis, is managing the growing volatility of the price of gas both by monitoring the limits of exposure to commodity risk and by optimising its buying and selling strategies. It should also be noted that the Group, in its procurement activities, operates on platforms.

Should the supply situation become critical and in line with national energy policy choices, the reactivation of the Monfalcone coal-fired thermoelectric power plant and the possibility of interrupting, requested by the network operator, the supply of energy to specific industrial entities cannot be ruled out.

It should also be noted that recently DL 17/22, followed by the MD MITE Gas storage 2022-2023 and ARERA Resolution 110/2022/R/Gas, required operators to bring the filling of storage to at least 90% of available capacity.

With reference to the activity of retail marketing of electricity and gas, the increase in the price of commodities causes an increase in credit exposures to customers (even in the event of constant volumes). This greater exposure naturally generates a greater risk in the event of default by individual counterparties and a greater financial commitment in the event of late payment. The extent of these tensions, which have been modest so far, will depend on how the crisis develops and how long it lasts.

The other business units (Waste and Smart Infrastructures) are less exposed to commodity risk. The impacts of the Russia-Ukraine conflict are therefore estimated to be indirect and, essentially, related to the potential reduction in GDP and the rise in inflation.

In order to face possible scenarios of financial tension, it should be noted that the Group's solid liquidity position, also supported by committed and uncommitted back-up lines (at March 14, 2022 equal to 1.7 billion euro), is allowing managing positions on the commodities market as well as any temporary increases in working capital due to price increases. A2A has recently successfully issued a 500 million euro bond in a very difficult market context in addition to subscribing to medium-term bilateral credit lines, demonstrating the Group's ability to access capital and banking markets.

Finally, in the presence of high alert for cyber-attacks, the Group has activated a channel with the National Security leadership to exchange information, accelerating the programme to secure endpoints with advanced malware protection tools.

Health emergency COVID-19 virus

With reference to the rise of the Coronavirus emergency, it should be noted that crisis management measures have been put in place, as well as the identification of appropriate prospective mitigations linked to the risk of temporal extension of the emergency.

Since 2018, the A2A Group has had a Group crisis plan that identifies the organizational system, activities and procedures necessary to deal with the events that led to the declaration of crisis, with the aim of protecting human resources inside and outside the A2A Group, containing material and immaterial damage and guaranteeing the correct management of communication flows externally and the continuity of the services offered, quickly organizing normal operating conditions and safeguarding the company's reputation. It should be noted that the A2A Group is managing the COVID-19 health emergency in full application of the provisions of the above procedure with the establishment and management of special Crisis Committees. These committees, which meet to coordinate crisis management activities, make it possible to direct the company's actions in line with the provisions of the various Prime Ministerial Decrees issued and carry out preventive activities by defining mitigation plans to be activated if the emergency situation worsens.

The main monitoring and mitigation actions identified are described below:
- definition of the minimum functional services to be monitored by the plant managers and the list of managers necessary to manage the plants and related back-up, also with reference to contractors; this activity has been completed and can be activated in the event of personnel unavailability;
- actions involving personnel aimed at avoiding assemblages and ensuring the safety of people (preparation of the procedural documents according to the provisions of health protocols, adoption of PPE, sanitization of premises, temperature measurement, etc.); the segregation of the personnel of external companies was also guaranteed;
- preparation of a plan of equipment and PPE requirements for use in disposable mode;
- adoption of organizational and technological solutions to ensure that certain critical processes can be carried out remotely and methods for the execution of emergency intervention.

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 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 2022-2030 Plan outlines ambitious growth targets, mainly in terms of the circular economy (recovery of materials and energy, exploitation of heat otherwise dispersed, preservation of water resources) 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, legislative and regulatory uncertainties 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. Moreover, since the last months of 2021, difficulties have been encountered in the procurement of certain materials used both in ordinary maintenance activities and at the sites where development initiatives are carried out; at the same time, the suppliers of these materials are asking Group companies to adjust their prices upwards. This tension on availability and prices was particularly accentuated for certain products (such as ammonia) that are indispensable for the operation of waste treatment plants.

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. To support the path of sustainable growth, training activities and the identification of focal points are underway 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.

Legislative and regulatory risks

The A2A Group operates in highly regulated sectors whether they are managed under natural monopoly (such as infrastructure for the distribution and transport of electricity and gas, the integrated water cycle and district heating) or under free market regime (such as energy management, trading and sale of energy carriers and other services to customers).

The 2018 Budget Law, moreover, has extended the regulatory and control competences of the Authority for Electricity, Gas and Water System (AEEGSI, which changed its name to ARERA - Regulation Authority for Energy, Networks and the Environment) to include the separate and combined municipal and equivalent waste collection cycle.

Among the risk factors, therefore, the constant and not always predictable evolution of the legislative and regulatory framework of reference shall be considered.

For these risk factors, the Group adopts a legislative and regulatory risk monitoring and management policy in order to mitigate, to the extent possible, the effects through oversight on various levels, which primarily involves collaborative dialogue with the institutions (ARERA, Competition and Market Protection Authority, Authority for Communications Guarantees, Ministry of Ecological Transition) and with technical bodies of the sector (GSE Energy Services Operator, GME Energy Markets Operator, Terna) as well as active participation in category associations and working groups established at said entities.

Also the view to European regulations, following the work of Brussels through participation in the tables of Eurelectric and Cedec, allows seeing "in advance" the subject of transposition into Italian law (in some cases automatic as per regulations).

To address these issues, the top management set up a specific organization structure called Regulatory Affairs and Competition, broadening the mandate, strengthening the link with the business and exceeding the vision for which the relationship with the regulator shall be interpreted solely as compliance (or litigation).

Constant dialogue with Business Units is also envisaged, not only for the simulation of impacts on current activities but also for the evaluation of new initiatives.

Regulatory Affairs and Competition also implemented constantly updated monitoring and control tools (ex. 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 on the regulation on the company.

The organizational structure also oversees regulatory risk for the ACSM-AGAM and AEB Groups in order to monitor and manage its impact in a coordinated manner.

The main topics involved in current changes in regulations and legislation, with major potential effects on the Group, are as follows:
- the rules governing large-scale diversion of hydroelectric concessions following Law no. 12/2019 which, in article 11-quater, provided for an overall reorganization of the subject, giving the Regions an increasingly important role (for the Lombardy Region, reference is made to the Regional Law no. 5/2020 as amended by subsequent Regional Law no. 19/2021);

- the outcome of the appeals filed by some operators and a trade association for the annulment of the Ministerial Decree MiSE of June 28, 2019 and all related acts of ARERA and Terna that implemented the capacity market regulations;
- tenders concerning the granting of concessions for the gas distribution service;
- the termination of the SII concessions held by the Group companies operating in the sector and their transfer for consideration to the Single Area Operator (with particular reference in the immediate future to the municipalities managed on a transitional basis by A2A Ciclo Idrico in the province of Brescia and to most of the municipalities of ASVT expiring on December 31, 2021);
- the certification of energy savings and the consequent issue of White Certificates by the Energy Services Manager;
- the impact on the development of district heating due to the lack of a specific incentive tool and the start of regulation of the sector by ARERA only for aspects relating to commercial and technical quality and not also for support for investments;
- the provisions of the 2017 Competition Law on the termination of price protection schemes for electricity and gas customers, the date of which was further extended for electricity household customers to January 1, 2024.

Finally, it should be noted that, in view of the numerous interventions by the Antitrust Authority in the sectors of interest to the A2A Group (in terms of initiating investigations into abuse of a dominant position, agreements and investigations) the Board of Directors of A2A S.p.A. approved during the meeting of June 20, 2019, the adoption of the Antitrust Compliance Programme with the consequent appointment of a person responsible for its implementation and during the meeting of January 20, 2020, adoption of the Antitrust Code of Conduct. Finally, on June 23, 2020 an Antitrust Guideline was adopted, which regulates the rules of conduct that A2A Group employees must observe in order to avoid antitrust violations (document available on the company Intranet). In 2021, training sessions continued for personnel in the various Business Units.

For a more detailed discussion of these risks, reference should be made to the section "Regulatory developments and impacts on the Business Units of the A2A Group".

Financial risks

Liquiditi risk

Liquidity risk regards the Group’s timely ability to meet its payment commitments. To hedge this risk, the Group ensures the maintenance of adequate financial resources, as well as a liquidity buffer sufficient to meet unexpected commitments. At December 31, 2021, the Group had cash and cash equivalents totalling 957 million euro, as well as unused committed loans and lines of credit of 1,125 million euro.

The management of liquidity risk is pursued by the Group also by means of a Bond Issue Program (Euro Medium Term Note Programme) sufficiently large and partially unused as to enable the Group to timely resort to the Capital market. At December 31, 2021, this program amounts to 6 billion euro, of which 2,400 million euro still available.

The Group's ability to obtain loans in the banking or financial markets depends, among other things, on prevailing market conditions and the Group's rating at the time of the need for financing. There is no guarantee that the Group will be able to access financing on equal or better terms than it currently has.

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 Compliance Risk” of the consolidated Financial Report illustrates in detail these risks related to the A2A Group. The same section also lists the loans that contain financial covenants. At December 31, 2021, there was no situation of non-compliance with the covenants of the A2A Group companies.

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 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 use of derivatives 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 Report illustrates the effects on the change in financial charges and in the fair value of derivatives resulting from a change in the forward curve of interest rates of +/- 50 bps.

Risks associated with industrial and business activities

Macroeconomic context risks (GDP)

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 current situation in the energy markets in which the production facilities operate, particularly thermoelectric power plants, shows encouraging signs of recovery also as a result of the gradual easing of the restrictive measures adopted at the time at national and international level to address the COVID-19 emergency. However, it cannot be ruled out that the overall economic situation could experience further deterioration in the future, also, but not only, with reference to a possible re-occurrence of the pandemic and the related response measures, with a potential increase in the time required for the production system to recover.

To ensure this, it should be pointed out that all the measures undertaken in the past for combined-cycle plants are still active and in operation, with the aim of guaranteeing their operating flexibility, efficiency and availability at times when such requirements are requested of them.

For the years to come, macroeconomic projections foresee the continuation of the gradual recovery in international trade and a moderate expansion in domestic demand, which should lead to a gradual recovery in GDP with consequent positive repercussions on the demand for electricity and energy carriers offered by the Group. The above recovery in economic prices could, however, be negatively affected by the trend in energy commodity prices, which have been rising since the last few months of 2021: the delicate geopolitical situation in Eastern Europe, the rapid recovery of the economies of various countries with increased demand for gas and European stocks at historic lows are among the main factors that are causing both price rises and commodity volatility. All of this could lead to potential impacts in terms of a contraction in consumption and tensions on credit.

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) in the areas served could hinder the regular operation of existing plants as well as the authorization process for new plants (for example, waste recovery or disposal plants and the conversion of thermoelectric plants), and therefore the growth planned by the Group in certain 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.

Risks related to climate change

Reference is made to potential impacts for Group Companies in connection with the reduction/suspension of services, rather than damage to company assets and/or people, that may occur upon the occurrence of events related to climate change (both chronic and acute) with reference to hazards arising from changes/events related to temperature regimes, wind, precipitation and solid masses.

With reference to chronic changes, in particular, the Group's hydroelectric power generation, the consumption of electricity, gas and heat for winter heating and the electricity and drinking water distribution services provided by the Group may be impacted by unfavourable changes in weather and climate parameters, such as scarcity and changes in rainfall patterns, particularly mild temperatures in winter and heat waves in summer.

Changes in the availability of water resources can also lead to conflicts between various stakeholders as well as restrictions on the operation of hydroelectric plants. These factors can have an unfavourable impact on the Group's production, sales and reputation and, consequently, have negative economic and financial impacts. As part of the operating activities of the electricity grids, the issue of continuity of service during periods of special climatic conditions, with specific reference to particularly 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.

Several actions are underway to mitigate this risk:
- to ensure optimum exploitation of water resources available for energy, the Group has established organizational structure dedicated to the development of analyses and engineering models to support the programming, both medium and short-term, of hydroelectric plants;
- with reference to the reduction in demand for thermal energy by end users compared to as planned, the Group has set up company organizational structures dedicated to constantly updating demand forecasts in relation to expected temperature trends. In addition, long-term investments have been planned to reduce the costs of heat production thanks to heat recovery and to develop district heating networks with a view to optimizing distribution methods;
- with reference to the operation of the electricity grids, 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 substations, a three-year plan to increase the resilience of the grid in agreement with ARERA. 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;
- in order to guarantee, even in the long term, the supply of drinking water on an ongoing basis, the A2A Group monitors and maps leaks from the water network in order to identify the priority of investments to contain them and is studying the interconnection of aqueducts and the search for new sources of water supply.

As mentioned previously, extreme weather phenomena such as floods and landslides can have a negative impact on the Group's assets (such as canals, 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 have been taken out to cover direct and indirect damage caused by natural phenomena.

Finally, the Group is exposed to the risks associated with the transition to a low-carbon economy, which is expressed through regulatory amendments, possible conflicts for the use of resources, 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.

To contribute to the decarbonization process, the Group is committed to reducing its CO_2 emissions - both direct and indirect. In fact, the Board of Directors approved a target for the Group's overall emissions to be achieved by 2030, which was recognized as a Science Based Target, i.e. in line with the level of decarbonization required to achieve the objectives of the Paris Agreement (limiting global warming to values well below 2 °C above pre-industrial levels and continuing efforts to limit warming to 1.5 °C). The main strategies adopted by the Group to achieve this objective include: ending the use of coal and fuel oil, increasing the efficiency of thermoelectric power plants fired with natural gas (combined cycles) and reducing emissions, adopting a strategic plan that calls for a significant increase in energy production from renewable sources, consistent with the target, and using energy entirely from renewable sources for consumption.

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 breakdowns, structural failures, fires, terrorist attacks, as well as labour unrest promoted by employees and referring to alleged failures on the part of the employer to adopt the COVID-19 prevention measures, could lead to damage to assets and, in the worst cases, compromise the Group's production capacity, as well as the possibility of guaranteeing the continuity of the services provided. 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 management procedure that provides for the establishment of interdisciplinary management committees, organized at both Group and Business Unit level and coordinated among them. Finally, work is in progress to structure the Business Continuity Plan for the A2A Group.
Finally, it should be noted that, to date, no critical points have been found in the provision of services in connection with the persistence of the health emergency.

The Group takes out insurance cover against any direct and indirect damage which may arise from other types of risk. As part of the insurance contract periodically (every three years), inspections are carried out on the plants and measures to improve the safety of assets and loss prevention are recommended/verified.

Information technology and operational technology risks

The A2A Group's activities are managed through IT (Information Technology) and OT (Operational Technology) systems and networks that support the main business processes, whether operational, administrative or commercial. In particular, the Group uses IT systems to record, process and summarize financial information and results of operations for internal reporting purposes and to comply with regulatory, legal and tax requirements. In addition, the Group collects and stores at Data Centers, sensitive data, including intellectual property, business information and personal information of customers, service providers and employees. The functioning of these information and technology systems and networks, as well as the processing and storage capacity of this data in a secure manner, are fundamental to the Group's activities.

Increased threats to the security of information infrastructure, including from the use of personal tools as a result of the remoteness of work in the period of health emergencies, and increasingly sophisticated forms of cybercrime pose a risk to the security of the Group's systems and networks and to the confidentiality, availability and integrity of its data. A security breach could expose the Group, its customers, service providers and employees to risks of misuse of information or systems, compromise of confidential information, loss of financial resources, data manipulation and destruction and operational disruption. All of these factors could adversely affect the Group's reputation, competitive position, business and results of operations; safety violations could also result in litigation, fines and disqualification penalties, as well as operational and other costs.

In order to mitigate this risk, numerous actions are in place within the Group: internal policies and procedures, tools for segregating access to information, specific policies on the use of mobile devices, assessments of the vulnerability of systems and applications, specific software for detecting malware, training activities to increase employee awareness, periodic IT Security risk assessment activities to identify the most critical applications. In addition, corporate reorganizations were implemented aimed, among other things, at guaranteeing an integrated and holistic management of corporate security for all assets, both physical and digital; activities are also being carried out to structure an evolved Security Operations Center capable of increasing the effectiveness of threat monitoring, as well as specific interventions to mitigate emerging risks, also following the consistent use of remote working modes linked to the COVID-19 pandemic.

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 existing platforms or to rationalize the applications in use, particularly for Customer Relationship Management and billing platforms supporting commercial activities.

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 put in place a process to ensure business continuity, based on the presence of a primary Data Center residing in the infrastructure of an external provider and equipped with high levels of security in terms of service continuity as well as the implementation of data backup solutions.

Lastly, the project aimed at guaranteeing the company's business continuity is nearing completion: critical processes have been identified and a Business Continuity Management System - SGCO - is being created, also with the aim of obtaining ISO 22301 certification. As part of the broader business project continuity activities are being developed for the further strengthening and expansion of the Disaster Recovery plan, which envisages the implementation of a Group cloud strategy to make corporate information systems more usable and resilient.

Health and safety risks

The occurrence of such risks may occur both in the event of accidents or serious or very serious injuries affecting employees and workers of contractors and/or third parties and in the event of occupational illnesses. These risks are related to the Group's activities such as, for example, those related to operational services in the territory and the performance of operating and maintenance processes at the plants.

The occurrence of such risks may lead to loss of reputation, as well as criminal, civil and/or administrative proceedings for violations of regulations, and/or sanctions, costs for compensation and/or increase in insurance premiums and, in the worst cases, interruption of plant operations, with consequent negative economic and financial impacts for the Group.

In order to mitigate these risks, the Group has set up organizational structures dedicated to the management of Health and Safety aspects at the parent company as well as at the Business Units, the individual companies and the main plants. The Group also maintains Health and Safety Management Systems certified in accordance with ISO 45001 for the parent company A2A and most of its Subsidiaries. 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.

In relation to the COVID-19 pandemic, given the current regulatory framework, this type of risk also includes the possibility of legal action brought by employees leading to alleged liability profiles of the employer and Group companies in the event of contact with the virus and contraction of the disease. In order to manage this risk, the Group is scrupulously adopting the prescriptions and protocols provided for by current regulations and guidelines issued by the competent bodies, as well as maximizing remote work. From this point of view, it should be noted that, in compliance with the provisions of current legislation, checks are carried out on COVID-19 green certifications (Green Pass as per article 9, paragraph 3 of Decree Law no. 52 of 2021) of employees and third parties accessing infrastructure and premises of Group Companies.

Environmental risks

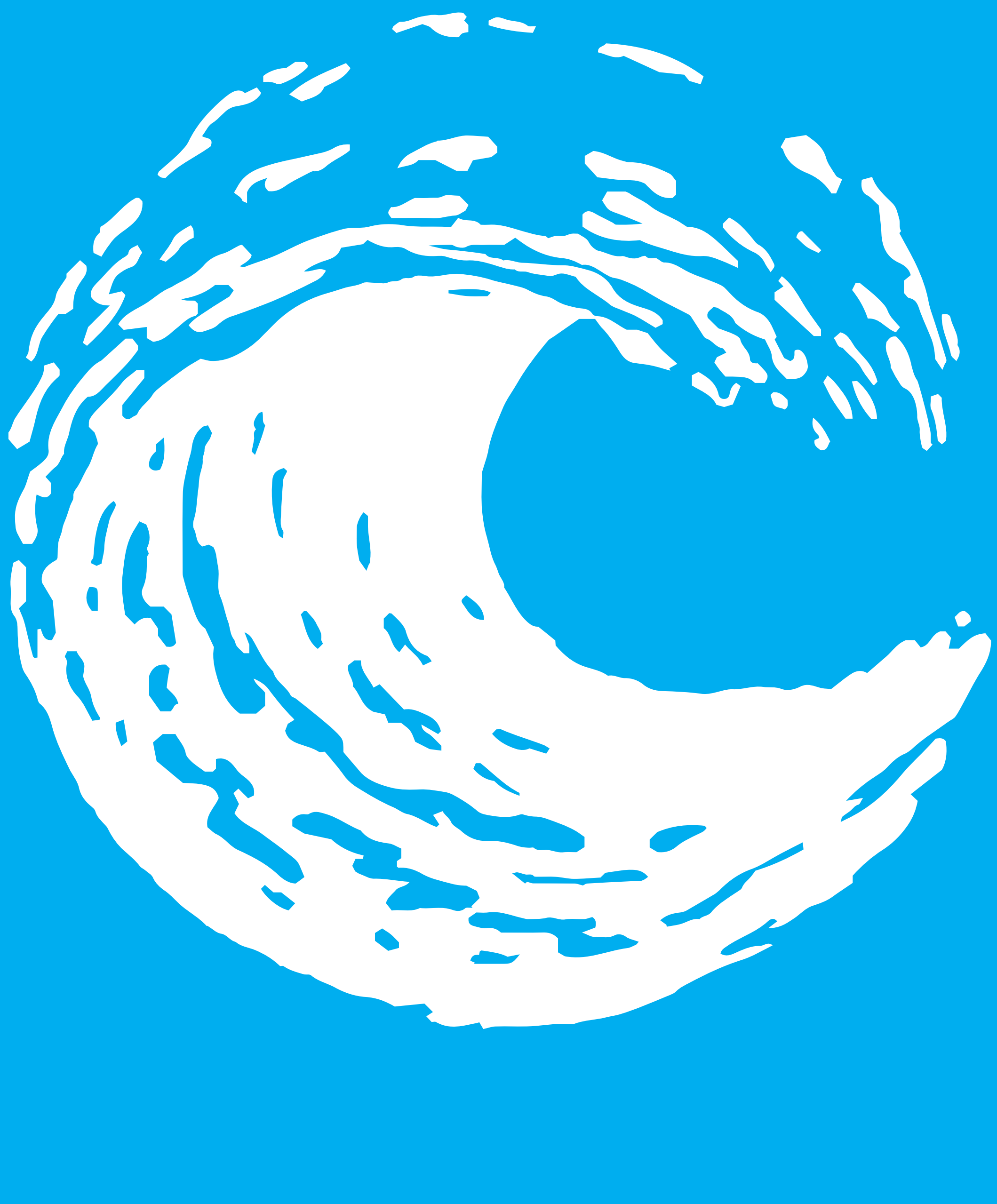
The emergence of such risks may occur as a result of accidents in production processes and of the particular characteristics of the business carried out by the Group, which may lead to reactions by the public opinion about presumed repercussions on the environment and/or on the health of resident populations. 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 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 and is also present on the technical panels set up by the associations in order to highlight any critical issues related to regulatory developments.



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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 shareholders in general meeting.

The following table provides a summary of the fees paid for audit work performed within the Group during 2021, 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	185	
Audit of consolidated financial statements	43	
Periodic tests of accounting	23	
Review of half-yearly report	70	
Audit of the separate annual accounts for ARERA	16	
Total	**337**	
Subsidiaries		
Audit of annual financial statements	1,124	
Periodic tests of accounting	220	
Review of half-yearly report	237	
Audit of the separate annual accounts for ARERA	81	
Other consolidated groups (Agripower, ACSM-AGAM, AEB)	397	88
Total	**2,059**	**88**
Associates and joint ventures		
Audit of the information sent to shareholders for the consolidation	25	
Total	**25**	
TOTAL A2A GROUP	**2,421**	**88**

In addition to the above audit work, companies belonging to the EY network also performed other engagements in 2021 for fees amounting in total to 306 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, 2021 (54 million euro at December 31, 2020).
At December 31, 2020, the treasury shares held by the parent company A2A S.p.A. were 23,721,421, amounting to 54 million euro. During the second quarter of 2021, the parent company A2A S.p.A. purchased treasury shares for a value of 109 million euro, by virtue of the share buyback program initiated on May 13, 2021 and concluded on June 24, 2021, thus coming to hold 86,154,895 treasury shares, equal to 2.75% of the share capital. The Group then proceeded to acquire 49% of the share capital of Linea Group Holding S.p.A. (now merged into A2A S.p.A.) by assigning these treasury shares to minority shareholders.

Secondary locations

The company does not have secondary offices.

Related parties and tax consolidation

Details of related party transactions are provided in note 40 to the consolidated financial statements and note 35 to the separate financial statements.

Climate Change

The recent 2021-2030 business plan published on January 27, 2022 is based on circular economy and energy transition, focusing on the importance of climate change and the need to move towards progressive decarbonization: in particular, the Group has committed to zero direct and indirect emissions (both Scope 1 and Scope 2) generated by the Group by 2040, ahead of the targets set by COP26.

The Group's Integrated Report 2021 are prepared in accordance with the Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), with the aim of giving the information needed by the financial community to properly assess climate-related risks and opportunities. In this sense, it has been estimated that physical weather uncertainties will affect the Group's overall EBITDA, as provided for in the Business Plan, with a variation of between -1.3% and +0.3%; whilst transition risks and opportunities will have an estimated variation of between -1% and +1.1%.

Already in previous years, the recoverability of the value of coal- and fuel oil-fired plants (Monfalcone CGU, San Filippo del Mela CGU) was estimated on the basis of a defined useful life, in line with the expiry of the Integrated Environmental Authorization (IEA). During impairment testing of the financial statements for the year ended December 31, 2021, no impairment losses were identified.

The useful lives of tangible and intangible assets and the amount of contingent liabilities, including decommissioning provisions, in line with the respective accounting standards, are constantly monitored, also in relation to the impacts of climate change.

Taxonomy

In June 2021, the European Commission formally adopted the first Technical Delegated Act of EU Regulation 2020/852 (so-called Taxonomy) that defines the list of economic sectors and activities currently included in the Taxonomy and the related technical screening criteria for whether they contribute substantially to the achievement of the environmental objectives of climate change mitigation and adaptation. In order to ensure compliance with the requirements of EU Regulation 2020/852, the A2A Group has implemented a specific project aimed at identifying "eligible" activities in accordance with the Regulation itself. This process has led to the identification of "eligible" activities for the Group under the Taxonomy with reference to which A2A has achieved revenues, capital expenditure and/or operating expenditure in the year 2021 and which are outlined in the Group's Consolidated Non-Financial Disclosure (CNFD) 2021.

* * *

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, 2021", 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 favourable 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 February 24, 1998, no. 58 ("TUF") (art. 4 of Legislative Decree May 10, 2019, no. 49).

Lastly, by resolution of the Board of Directors on June 25, 2021, subject to the favourable 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 the website www.a2a.eu.

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.