



2022

Sustainability **Report**



2022

Sustainability **Report**



Opening remarks

[GRI 2-22]



Luca Alippi

Amministratore Delegato
EP Produzione S.p.A.

“2022 was a year, once again, characterized by challenges and dramatic events, with a strong impact also on the energy sector. At a time that seemed to represent a resurgence after the pandemic, when the recovery and international exchanges were starting to move in a positive direction, the Russo-Ukrainian conflict that began on February 24, 2022, with the tragedy of a war in Europe and its burden of suffering, has once again unbalanced geopolitical equilibrium with significant repercussions on global dynamics and markets.

The fear of an energy supply disruption, particularly in natural gas, has contributed, together with other effects of the war, to a broader crisis that has affected families and businesses, with impacts on productive and logistical supply chains in terms of reduced availability, extended delivery times, and increased prices for a multitude of raw materials, services, and essential goods, from wheat to steel to transport of goods. All of this has been added to the still present effects of the COVID-19 pandemic, especially in some countries, including China (zero COVID policies, lockdowns, and blockades of industrial areas and ports such as Shanghai).

Our energy production activities and our projects for the realization of new production units have also been significantly affected, having to face the great volatility and uncertainties of the markets.

In this context, the European Union intervened with measures to support families and businesses, accelerating the transition to renewable sources and increasing Europe's energy independence through the diversification of energy sources and supplier countries. Despite high prices, the gas needed to power our plants has never been lacking. At Fiume Santo, downstream of the ban on Russian coal since August 2022, we have activated supplies from Australia and Indonesia, continuing to meet the commitments of a plant that is essential to the Italian electricity system, also in the context of maximizing the use of coal and other fuels different from natural gas.

We have also faced the severe drought of last year, which for us meant strong limitations in the summer months due to the shortage of water necessary for cooling some of our plants.

In this scenario, at EP Produzione we continued to contribute to the national electricity system, thanks to our efficient, flexible and programmable plants. In 2022, we produced approximately 14.1 TWh, confirming ourselves as one of the main producers of electricity in Italy.

We continue to invest in new technologies and improvement processes. In 2022, investments doubled compared to the previous year, reaching €260 million, an increase mainly due to ongoing work for the construction of the two new combined cycle units at our Tavazzano and Montanaso and Ostiglia power plants, projects characterized by higher levels of efficiency and emission reduction. The plan for the period 2023-2027 includes investments worth more than €700 million.

With the aim of ensuring a productive and sustainable future for the Fiume Santo industrial site even after the phase-out of coal, we are carrying out projects and solutions that, integrated into a multi-technology hub, can contribute to the energy security of the territory and the path towards a sustainable energy transition. In parallel, we are pursuing development opportunities in other production sites, continuing ongoing processes and evaluating new technologies.

Workplace safety and the health of all those who work with and for us continue to be absolute priorities: we must maintain constant attention to the prevention of accidents and incidents, consolidating the safety culture at all levels of the organization and for all generations - from boomers to millennials - that make up our team. In 2022, 41 people were hired in response to 25 departures, mainly due to pension limits.

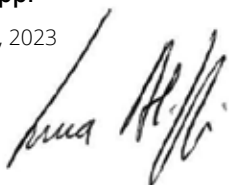
Thank you to those who have shared these years with us and a welcome to the new colleagues: preserving and further developing skills is essential to keep the company healthy and able to face the challenges ahead.

In the next pages, we tell you about the commitment and results achieved, with the energy and passion that have always distinguished everything we do. The challenges in the field are great and we will only win by joining forces and looking confidently to the future. Let's move forward, together, with the same energy as always."

In the pages that follow, we describe our commitment and achievements, with the energy and passion that has always distinguished everything we do. We have some huge challenges facing us in the field and will only win the game by joining forces and looking towards the future with confidence. We move forward together, with the same energy as always."

Luca Alippi

March 29, 2023



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An Agenda for the future
The challenges of the energy transition

The context

AN AGENDA FOR THE FUTURE

Sustainability is a key concept for meeting the challenges of the present and the future. As the world recovers from the socio-economic repercussions of COVID-19, the war between Russia and Ukraine has exposed, among others the need for sustainable policies able to guarantee social and economic stability, while protecting the environment and promoting social justice.

Against this backdrop, with the promise "no-one left behind", the 2030 Agenda for Sustainable Development Goals (SDGs) makes a global call to action in which everyone is exhorted to play a part, balancing short- and medium-term needs with long-term requirements. The aim of the Agenda, adopted in 2015 by all the members of the United Nations, is to achieve **17 sustainability goals and 169 targets by 2030**.

The SDGs encapsulate a fervent appeal to action to which our country has not yet fully responded.

The 17 goals are designed in the form of an **interlinked, indivisible and universal network**, since action in one area patently affects results in others. Not only do they provide the point of departure for a collective path, but are also the result of an awareness-raising process that has taken years to achieve. Attaining these goals requires the widest possible sharing of know-how, technology and financial resources.

EP Produzione's contribution to the SDGs



Promote the Energy Transition

EP Produzione contributes to the country's energy transition with ever more efficient, flexible and programmable plants that help improve the security and adequacy of the Italian

electricity system, also enabling the development of renewables and progressive decarbonization.



Take urgent action, at all levels, to combat climate change

The company produces energy in compliance with the increasingly stringent regulatory limits on atmospheric emissions. Plant efficiency is of paramount importance and entails optimizing the use of natural resources, starting from the fuels used in our processes.



Ensure health and well-being in the workplace

EP Produzione undertakes to guarantee health and safety in the workplace, in order to contribute to the overall well-being of its employees and collaborators. Its operating horizon is to achieve and maintain zero accidents in our workplaces.



Promote sustainable economic growth

The company contributes to the economic growth of the country, ensuring lasting employment and generating value for the territory, through partnerships with suppliers based on mutual trust, giving priority to local enterprises, in order to support the development of the economic and social fabric in which it operates.



Build resilient infrastructure for fair and responsible industrialization

EP Produzione adopts state-of-the-art approaches and tools to enable a sustainable energy transition. It invests in new, more efficient capacities, with state-of-the-art technologies that offer higher performance while reducing atmospheric emissions.

THE CHALLENGES OF THE ENERGY TRANSITION

Over the past 170 years, large quantities of greenhouse gases have been emitted into the atmosphere as a result of human activities, causing a **global temperature rise of approx. 1.1°C compared to pre-industrial levels**. If rapid global action is not taken, temperatures could rise by 3.2°C by the end of the century, causing an unprecedented transformation of the ecosystems we know today¹.

Given the situation, the European Union has set an ambitious goal: to become the first continent in the world to achieve **climate neutrality by 2050**. The “Fit for 55” package, approved in July 2021, envisages a 55% reduction in greenhouse gas emissions compared to 1990 levels by 2030, an increase to 45% in the share of renewable energy in the energy mix and an energy efficiency goal of 36%².

The energy sector is of crucial importance for the achievement of these goals. In fact, the sector contributes over 73% of global greenhouse gas emissions³. In 2022, emissions from electricity production rose by 1.3% compared to 2021, reaching record levels⁴.

The recent geopolitical conflict has made the discussion on the future of energy and opportunities for investment in this sector even more urgent. The Conference of the Parties (COP27), held in Sharm el-Sheikh in November 2022, provided an opportunity to discuss these issues and find global solutions to address climate risk.

In particular, the countries reached an agreement to create a global Loss and Damage Fund, an essential tool for supporting countries particularly vulne-

¹ UNEP, Emission Gap Report, 2022.

² European Commission, Fit for 55, COM/2021/550 final – For more information, please see The European House – Ambrosetti, European Governance of the Energy Transition 2021.

³ World Resources Institute, Climate Watch, 2020.

⁴ International Energy Authority (IEA), Electricity Market Report 2023, 2023.

rable to the climate crisis.

But the creation of this fund seems to have deflected attention from the central issue of mitigation, and COP27 did not make significant progress compared to the previous COP26, held in Glasgow.

The possible recession predicted for 2023, the higher energy demand from developing countries and the costs required for the energy transition - issues still unresolved even after COP27 - are the **main obstacles to tackling climate change effectively on a global scale**.

The sharp and sudden growth in demand for raw materials and energy following the COVID-19 pandemic triggered price hikes and a global supply crisis. The Russian-Ukrainian conflict has **further increased tensions in European energy markets**, due to the progressive reduction of gas supplies from Russia and the procurement ban on Russian coal.

The price of gas - one of the main sources for electricity generation in Europe - soared to record prices in the month of August: ten times higher than at the beginning of 2021⁵. Meanwhile, the ban on Russian coal imports as of August 10, 2022 brought about an increase in prices which peaked in September 2022 at €425/ton, compared to €90/ton in early 2021⁶. This embargo also contributed to the redirection of supplies from other exporting countries such as the United States, Australia and Indonesia, causing an increase not only in costs, but also in transportation time⁷.

In the short term, the war led many European countries, including France, Germany, Austria, the Netherlands and Italy, to reopen decommissioned coal-fired

power stations **and maximize the electricity production of those still in operation** in order to meet national demand, given the lack of Russian gas⁸. As a result, coal-fired electricity generation in the EU increased by **6.7%** (28 TWh), from 419 TWh in 2021 to 447 TWh in 2022, raising the share of coal in the Union's electricity mix from 14.5% in 2021 to 16% in 2022⁹.

In response to the financial gains of electricity producers as a result of the price hikes, Member States agreed that energy companies would be required to make a temporary **Solidarity Contribution** on the surplus profits made. In line with this decision, in Italy, the 2023 Budget Law provided for further fiscal intervention compared to the one introduced in 2022 based on the application of a 25% rate on the increase in the balance between active and passive VAT operations, for the period from October 1, 2021 to April 30, 2022 compared to the period from October 1, 2020 to April 30, 2021. The 2023 Budget Law has indeed introduced a Solidarity Contribution, to be paid in June, equal to 50% of the taxable amount for the year 2022, which exceeds by at least 10% the average of the total incomes earned in the previous four years¹⁰. In the long term, the need to guarantee the energy supply and reduce dependence on imported fuels has led the EU to reinforce its clean energy transition policies. The aim of the **REPowerEU plan**, presented in May 2022, is to increase system resilience through energy efficiency and diversification of procurement sources. Supported by investments of over €210 billion in the next five years, Member States will be able to add a chapter to the **National Recovery and Resilience Plans** (NRRPs) to direct investments towards REPowerEU priorities¹¹.

⁵ Statista, Weekly Dutch TTF gas prices 2021-2023, 2022.

⁶ Euronews, Europe's gas prices have broken a new record. How high can they go? 2022; Trading Economics, Coal, 2022.

⁷ International Energy Authority (IEA), The world's coal consumption is set to reach a new high in 2022 as the energy crisis shakes markets, 2022.

⁸ International Energy Authority (IEA), Electricity Market Report - July 2022, 2022.

⁹ EMBER, EU Electricity Transition, 2022.

¹⁰ IPSOA, Legge di Bilancio 2023: guida alle novità per professionisti e imprese, 2022.

¹¹ European Commission, Action and measures on energy prices, 2022.

¹² IEA, Electricity Market Report 2023, 2023.

In this context, it is estimated that the share of renewables in the global mix for the generation of electricity will increase from 29% to 35% between 2022 and 2025¹². In Italy, attaining the European targets for renewable energy capacity would require the installation of around 7 GW of renewable plants each year, a very difficult task considering that the average time required to gain the authorizations and build such plants is about 8 years, mainly due to bureaucratic complexity and opposition from local representatives (NIMBY syndrome - Not In My Backyard, meaning "yes, but not in my backyard").

In addition, **due to their intermittency and unpredictability, the use of non-programmable renewable energy sources poses major challenges for the safe and efficient operation of the electricity system**. Given these challenges, it is clear that, in order to successfully complete the energy transition, Europe and Italy will have to be able to combine renewables with alternative sources and supporting systems, such as batteries (Battery Energy Storage System – BESS) and natural gas - which is likely to continue to play a strategic role in the European energy mix, with an estimated share of around 30% of the continent's total needs over the next 20 years.

Energy for the future

The Tavazzano and Montanaso power plant

The Ostiglia power plant

The Trapani power plant

Fiume Santo power plant

The Livorno Ferraris powerplant

The Scandale power plant

EP Produzione

[GRI 2-1] [GRI 2-2] [GRI 2-6]

ENERGY FOR THE FUTURE

EP Produzione is the Italian electricity generation company of the Czech EPH energy Group, 100% controlled by EP Power Europe. With **a total generation capacity of approximately 4.4 GW**, five gas-fired plants, one of which is held in partnership with A2A Gencogas S.p.A., and one coal-fired plant, it is the 5th leading energy producer in Italy¹³. EP Produzione's power plants are efficient and high-performance, managed according to the highest environmental, safety and reliability standards.

In 2022, EP Produzione generated more than **14.1 TWh of energy**, accounting for approx. 5% of national production¹⁴. EP Produzione helps advance the country's energy transition, ensuring continuous availability of electrical energy and high quality standards, crucial to offset the non-programmability typically associated with renewable resources.

In fact, our power plants perform the important task of stabilizing the electricity grid and providing electrical energy on the basis of the demand detected by the electricity system. With the development projects at the Tavazzano and Montanaso and Ostiglia power stations, the commissioning of which is scheduled for 2024 and 2025, respectively, installed capacity will increase to 6 GW, with more efficient plants and progressively lower environmental impacts.

The EPH Group has been operating in Italy since July 2015, through various subsidiaries and investee companies, including:

- **EP Produzione S.p.A.:** an Italian holding company, 100% controlled by EP Power Europe, it owns the Ostiglia (MN) and Trapani (TP) gas-fired power plants.
- **EP Centrale Tavazzano Montanaso S.p.A.:** 100% controlled by EP Produzione, it owns the Tavazzano and Montanaso (LO) power plant.

- **Fiume Santo S.p.A.:** 100% controlled by EP Produzione, it owns the Fiume Santo (SS) Power plant.

- **EP Produzione Centrale Livorno Ferraris S.p.A.:** joint venture between EP Produzione S.p.A. (75%) and BKW Italia S.p.A. (25%), it owns the Livorno Ferraris (VC) combined-cycle gas-fired plant.

- **EPP 2 S.r.l. ed EPP 3 S.r.l.:** both 100% controlled by EP Produzione, a special purpose vehicle for development projects.

- **Centro Energia Ferrara S.r.l.:** 100% controlled by EP Produzione.

After the company EP Centrale Tavazzano Montanaso S.p.A. was founded, on February 1, 2022 the production unit of the Tavazzano and Montanaso power plant was transferred from EP Produzione to the new company, together with all the new contracts and authorizations for the realization of the new unit.

In addition to the above, there is Ergosud S.p.A., a company owned under a 50% partnership arrangement by EP Power Europe a.s (100% shareholder of EP Produzione) and A2A Gencogas S.p.A, which owns the power plant of Scandale (KR).

In 2022, EP Produzione accounted for **10% of sales in the Day-Ahead Market (DAM)** in Northern Italy¹³. The Fiume Santo power plant met **23% of demand in terms of volume energy supply between DAM (Day Ahead Market) and DSM (Dispatching Services Market) in Sardinia**.

In 2016, Terna identified the Fiume Santo power plant as **essential to the security of Sardinia's electricity system**. With Resolution 268/2019, ARERA (Italian Regulatory Authority for Energy, Networks and Environ-

ment) extended the existing essentiality and cost reintegration regime until 31 December 2024.

Since the beginning of 2019, the Trapani power plant has been reinstated as essential for the safe operation of the western area of Sicily under an alternative regime (Art. 65 bis2 of ARERA Resolution 111/06), according to which the dispatching user must comply with the constraints and criteria laid down by the Authority when submitting its offers in the market for the dispatching service. With Resolution 531/2022/R/eel, the Authority defined the relevant technical-economic parameters for the **application of the alternative regime also for 2023**.

All EP Produzione power plants perform a crucial role in the repowering process managed by Terna in the event of blackouts, and the Trapani power plant, in particular, is responsible for the black start service. This means that the power plant is capable of restarting independently, without relying on the external electricity transmission network, thus facilitating the restoration of normal operating conditions for the network.

All EP Produzione plants meet the highest environmental, safety and reliability standards, as demonstrated by the EMAS environmental registration and the certifications obtained and maintained over time, concerning environmental and occupational health and safety. Under the European EMAS scheme, each power plant is required to publish an annual **Environmental Declaration** through which the environmental impacts and the efforts made to minimize them are communicated in a clear and transparent manner.

¹³ ARERA, Relazione Annuale: Stato dei Servizi, 2021.

¹⁴ The figure does not include electricity production from the Scandale power plant.

¹⁵ The Northern area includes the following regions: Valle d'Aosta, Piedmont, Liguria, Lombardy, Veneto, Trentino-Alto Adige, Friuli-Venezia Giulia and Emilia-Romagna.

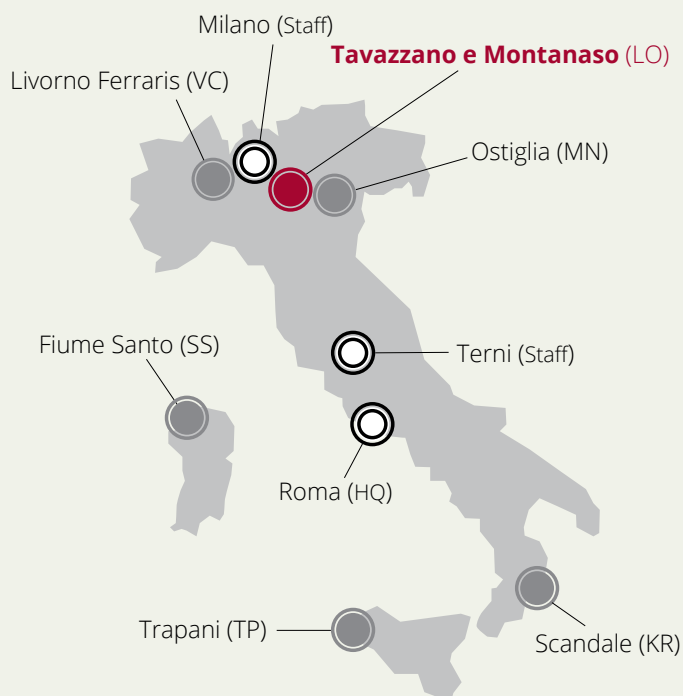
THE TAVAZZANO AND MONTANASO POWER PLANT

The Tavazzano and Montanaso power plant covers an area of approximately **70 hectares** in the Municipalities of Montanaso Lombardo and Tavazzano con Villavesco in the province of Lodi, 25 km from Milan. Operating in the area since 1952, creating jobs and economic development, the installed power is **1,170 MW** and the plants dedicated to producing electrical energy use only **natural gas**. It is located close to important major electricity consumption centers and to the surface water network consisting of the Muzza and Belgiardino canals and the Adda river.

Two combined cycle units are currently in operation: unit 5, with a 790 MW capacity, began operating in 2004 and consists of two gas turbines and two heat recovery steam generators, connected to a steam turbine; unit 6, with a 380 MW capacity, began operating in 2005 and consists of a single gas turbine and a steam generator connected to a steam turbine.

In 2000, the power plant became one of the first industrial sites in Italy to obtain EMAS registration. The power plant is operated under the strictest environmental standards, monitored and controlled by local and national authorities (ARPA and ISPRA) and operates with an EMAS, ISO 45001 and 14001 certified environmental management system.

In 2019, a new **efficiency improvement project** was developed, involving the construction of a **new latest generation combined cycle unit**, with class H technology - the most advanced and efficient currently available on the market - intended to operate alongside the two existing units. The new unit will have net electric power of approximately **800 MWe** and efficiency of more than **62%**, which means that the same amount of energy can be produced with a substantial reduction in fuel consumption and emissions.



Type of plant

Thermoelectric power plant with two CCGT units with three turbogas



Net installed capacity

1.170 MW



Area

70 hectares



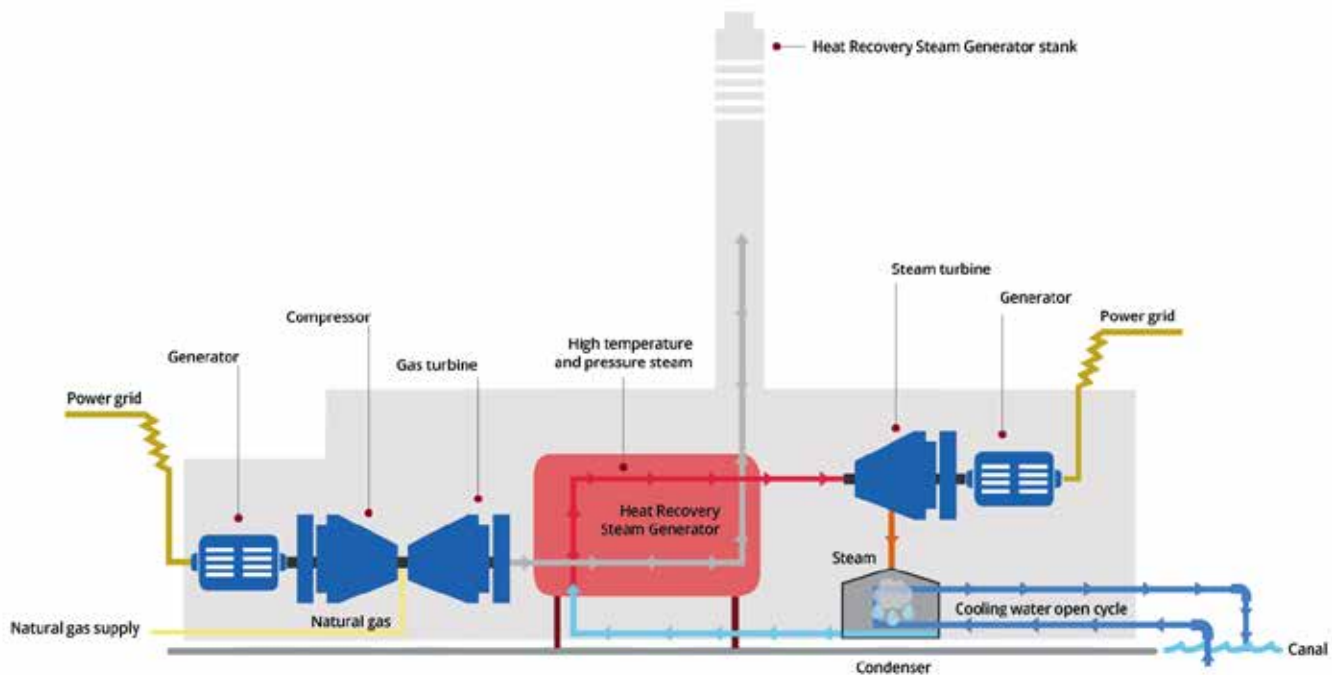
Certifications

ISO 14001 (Environment)
EMAS IT 000032 (Environment)
ISO 45001 (Safety)



Address

Via Emilia 12/A
26836 Montanaso Lombardo (LO)



The new combined cycle is being built to replace the pre-existing Unit 8 as well as reducing the operating hours of Unit 6.

In its final configuration, the power plant will perform better: it will be more flexible and efficient, and emissions into the atmosphere will be reduced compared to the current one.



THE OSTIGLIA POWER PLANT

The Ostiglia thermoelectric power plant spans an area of approximately 51 hectares in the Municipality of Ostiglia, in the province of Mantua, on the left bank of the Po River.

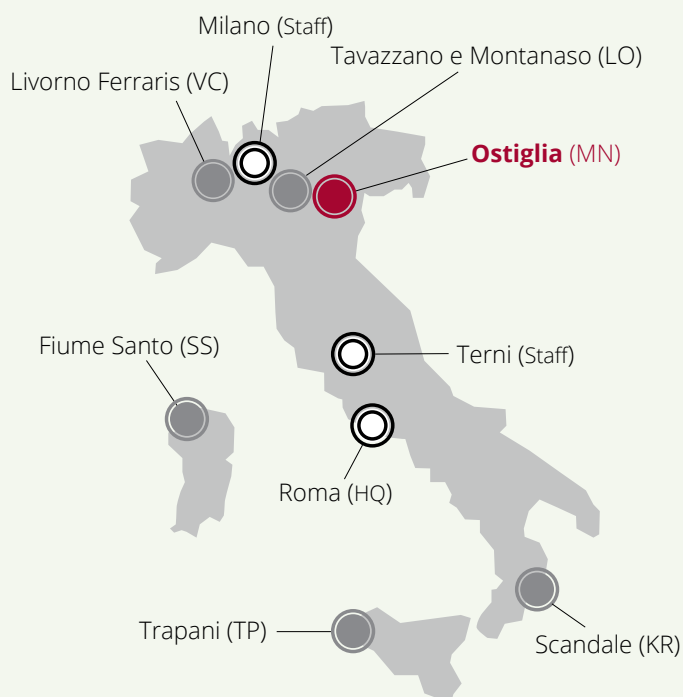
Installed power is **1,164 MW**, and the plants dedicated to producing electrical energy use **only natural gas**. Three combined cycle units are currently in operation, two with a capacity of 392 MW and one with a capacity of 380 MW, each consisting of a gas turbine and a steam generator. The three units came into operation in 2003-2004.

The power plant has ISO 14001 environmental certification, ISO 45001 certification for occupational health and safety management systems and it is included on the EMAS European Register.

The transformation of the power plant into a combined-cycle has made it possible to achieve **yields of 55% for the same amount of energy produced**, with consequent environmental benefits such as zero emissions of dust and sulfur oxides and a dramatic reduction in nitrogen and carbon oxides. The emission values are, in turn, continuously monitored and recorded by an emission monitoring system (EMS) and periodically reported to the control authority.

The **new efficiency improvement project at the Ostiglia power station** involves the construction of a new, class H, combined cycle unit, state-of-the-art technology for technical performance and environmental sustainability among natural gas power stations. The project was presented in July 2020.

In December 2021, EP Produzione was granted a Single Authorization (AU) by the Ministry of Ecological Transition (MITE). The selected EPC Contractor is a temporary grouping of companies consisting of leading companies in the sector, namely Siemens, Fata and Demont. This consortium will be responsible for the construction of the new production unit.



Type of plant

Thermoelectric power plant consisting of three CCGT units



Net installed capacity

1.164 MW



Area

51 hectares



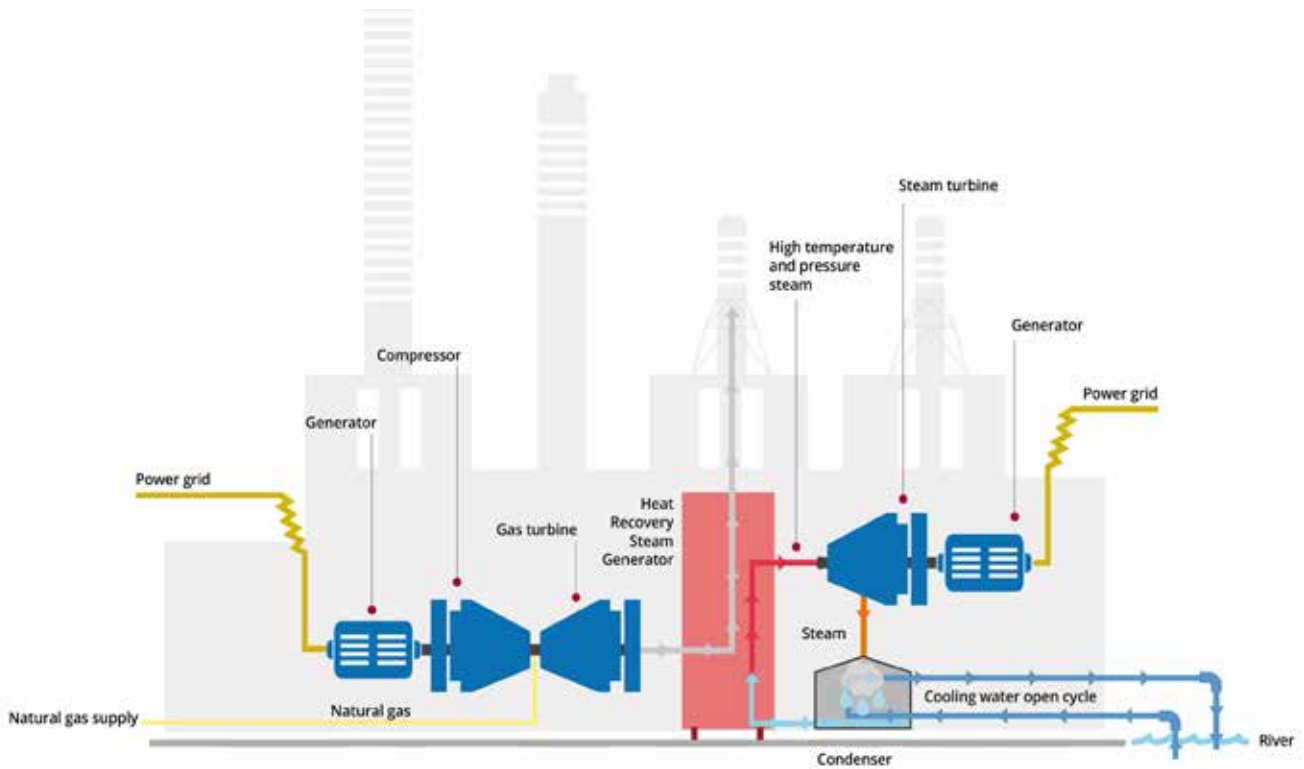
Certifications

ISO 14001 (Environment)
EMAS IT 000355 (Environment)
ISO 45001 (Safety)



Address

Strada Abetone Brennero Est n° 72
46035 Ostiglia (MN)



The project involves the installation of a new unit which will have net electric power of approx. **880 MWe** and a **net efficiency of more than 62%**, which means that the same amount of energy can be produced with a notable reduction in fuel consumption and total emissions. Thanks to this technology, it will be possible to further reduce specific emissions in compliance with the most stringent national and European guidelines.

The project will bring about a reduction in the overall consumption of water from the Po River, as the newly constructed Unit 5 will be air-cooled. Additionally, the acoustic impact of the power plant on the populated areas of Ostiglia will be minimized by relocating the new Unit 5 to the Borgo San Giovanni site, which is approximately 1 km away from the inhabited area, and by placing a traditional section in “cold reserve”.

Improving the efficiency of the Mantua power plant also involves a series of environmental improvement measures for the three existing units: in particular, one unit will be placed in “cold reserve”, i.e. it will only

come into operation if one of the other units cannot be used). The new configuration will make it possible to ensure access to the new **programmable and flexible capacity**, an essential requirement to tackle the needs to develop renewable sources with those relating to the security of the electricity grid.

It is worth noting that the project also entails the demolition of tanks that are no longer in use, situated near the urban area. Furthermore, approximately half of the area freed up after the demolition will be made available to the municipality. The construction of the new CCGT in the Borgo San Giovanni's region can be seen as the first step of a larger project that will gradually decommission the industrial area closest to the municipality, concentrating electricity production in the more isolated Borgo San Giovanni region.

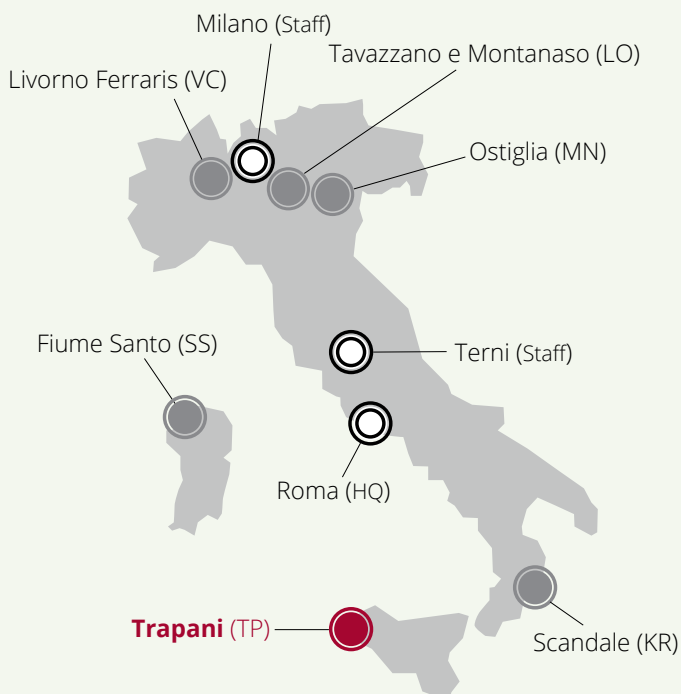
THE TRAPANI POWER PLANT

The Trapani thermoelectric power plant spans an area of **9.2 hectares** in Western Sicily, approximately 15 km south-west of Trapani. It consists of two open-cycle turbogas units powered by natural gas with **overall net power of 213 MW**.

In 2013, the two gas-fired units were upgraded with the modernization and replacement of the main components, such as turbines (from B technology to E technology), generators, transformers, alternators and installation of DLN (Dry Low NO_x) burners **to reduce NO_x emissions**.

The power plant was one of the first industrial sites in Sicily to obtain EMAS registration. Upgrading of the plant in 2013 reduced NO_x and CO₂ emissions and **increased plant efficiency** by **32.5%**. Additionally, it has ISO 14001 certification for its environmental management system, ISO 45001 certification for its occupational health and safety systems and is included on the EMAS European Register.

In 2022, a plan was authorized to replace the current units with four new OCGT units of equivalent power (about 220 MWe), to be constructed within the perimeter of the existing power station. Each gas turbine will be fitted with DLN (Dry Low NO_x) burners with a nominal capacity of approximately 55 Mwe each, along with all the necessary auxiliary systems required for proper operation. The catalytic denitrification system (Selective Catalytic Reduction - SCR) will ensure NO_x reduction by enabling selective reduction of nitrogen oxides into molecular nitrogen and water vapour. Future project developments will be dependent on market and regulatory conditions (such as continuation of capacity auctions). At present, evaluations are ongoing for revamping interventions on existing units to maintain the integrity and performance of the Trapani plant, which has so far been regarded as essential in ensuring grid stability in Sicily.



Type of plant

Thermoelectric power plant with two open-cycle units



Net installed capacity

213 MW



Area

9,2 hectares



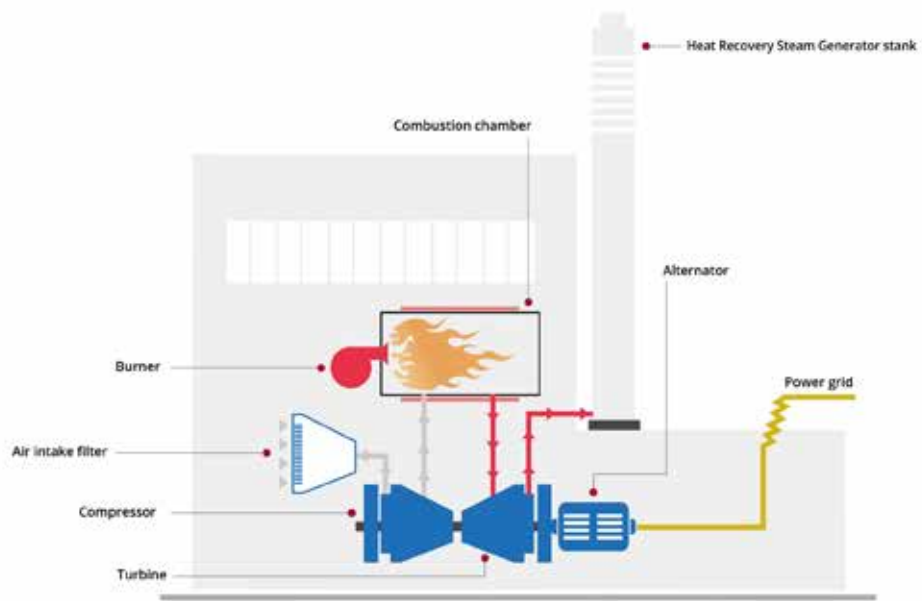
Certifications

ISO 14001 (Environment)
EMAS IT 000236 (Environment)
ISO 45001 (Safety)



Address

S.P. 35 s/n - C.da Favarotta Rilievo
91031 Misiliscemi (TP)



FIUME SANTO POWER PLANT

The Fiume Santo thermoelectric power plant spans approximately **153 hectares** on the Gulf of Asinara, in the "Cabu Aspru" area of the province of Sassari, in the Sassari and Porto Torres Municipalities.

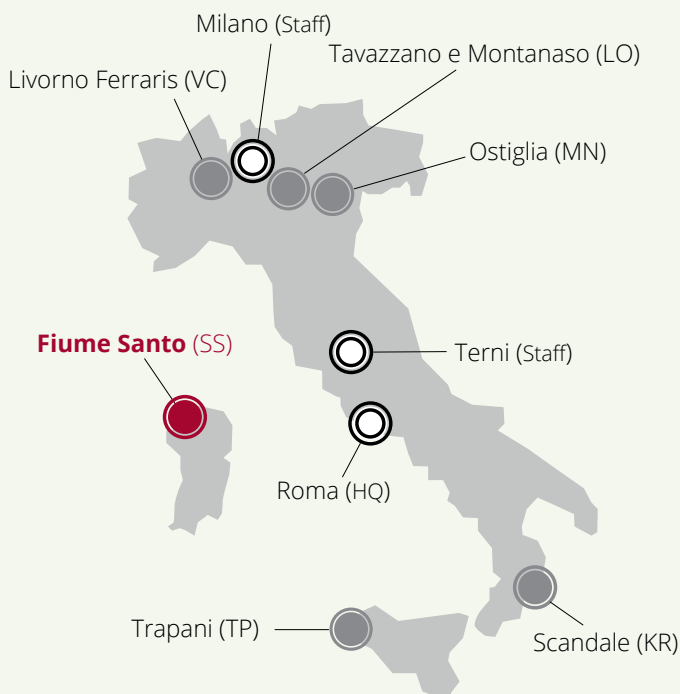
There are currently two coal-fired generation units operating at the power plant, with overall power of approximately **600 MW**, representing one of the major production sites in north-western Sardinia.

Units 3 and 4 are equipped with plants to reduce sulfur dioxide (DeSO_x) and nitrous oxides (DeNO_x), and dust reduction systems. The power plant is also equipped with an air quality monitoring network. The plant is authorized to burn **biomass** on a co-combustion basis in the existing coal sections.

Fiume Santo, among the plants essential to the stability of the national grid, has an environmental management system that complies with the ISO 14001 standard, and it has an ISO 45001 certification for occupational health and safety management systems and an ISO 9001-certified Quality Management System. It has also been included on the EMAS European Register since 2005.

In the face of the embargo on Russian coal imports, **supply routes were changed** in August 2022. EP Produzione has evaluated and tested several alternatives currently available on the international market in order to guarantee the same environmental performance as that produced with Russian coal.

To date, the choice has fallen on a blend of Indonesian and Australian coal in an attempt to achieve combustion and plant performance results (emissions, ash, etc.) that are similar, although not equivalent, to those of Russian coal.



Type of plant

Thermoelectric power plant two coal-fired units



Net installed capacity

599 MW



Area

153 hectares



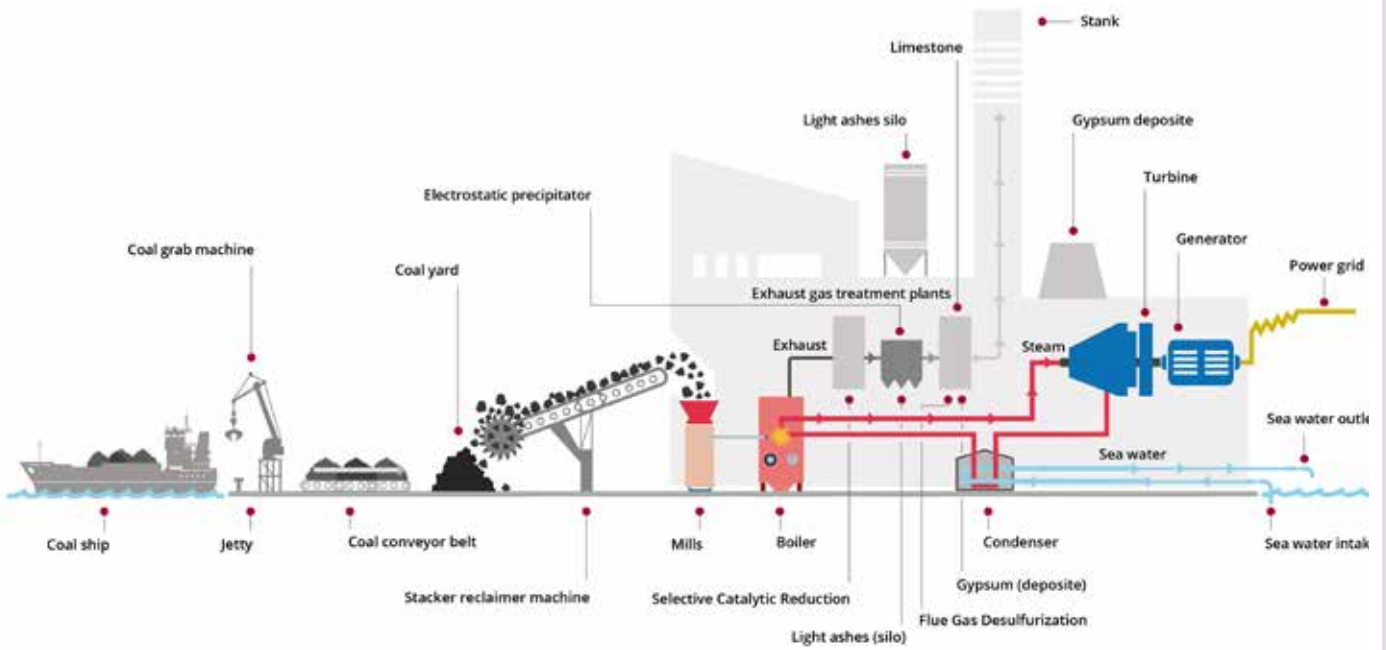
Certifications

ISO 14001 (Environment)
EMAS IT 000403 (Environment)
ISO 45001 (Safety)
ISO 9001 (Quality)



Address

Loc. Cabu Aspru
07100 Sassari (SS)



At the Fiume Santo power plant, EP Produzione is at the forefront in giving the industrial site a productive future, with the **objective of creating an Energy Park** that implements concrete, high quality solutions for increasingly sustainable programmable energy.

In a single location, in fact, **Fiume Santo Energy Park could condense an energy mix** based on new gas-fired combined-cycle units, the conversion of one of the two existing coal-fired units to biomass, a photovoltaic system and an off-shore photovoltaic park, the installation of electrolyzers for the production of green hydrogen, and storage facilities with electrochemical batteries. With a horizon of use of at least 20-30 years, these solutions can play a key role in the energy transition.



THE LIVORNO FERRARIS POWER PLANT

The Livorno Ferraris thermoelectric power plant is located in the municipality of the same name, in the province of **Vercelli**. The plant, owned by EP Produzione Centrale Livorno Ferraris S.p.A. (EP Produzione S.p.A. 75% and BKW Italia S.p.A. 25%), began operating in 2008.

It is a high-efficiency combined cycle infrastructure with net installed capacity of **805 MW**, consisting of two turbogas units and a steam turbine. The latter uses the steam produced by **two heat recovery steam generators** (HRSG), obtained thanks to the heat of the gases being discharged from the turbogas units, which reach a temperature of over 560 °C. The combined use of the turbogas units and the steam turbine enables the plant to achieve high efficiency of approximately **56%**, resulting in low specific greenhouse gas emissions.

The power plant has ISO 14001 and ISO 45001 environmental certifications and is included on the EMAS European Register.

The plant is located against the backdrop of the Vercelli rice paddies. Starting from the construction phase of the Livorno Ferraris power plant, as required by the Integrated Environmental Authorization that permitted said construction, the power plant has enacted various environmental mitigation and compensation measures in the areas near the power plant.



Type of plant

Combined cycle power plant with two turbogas and a steam



Net installed capacity

805 MW



Area

6,5 hectares



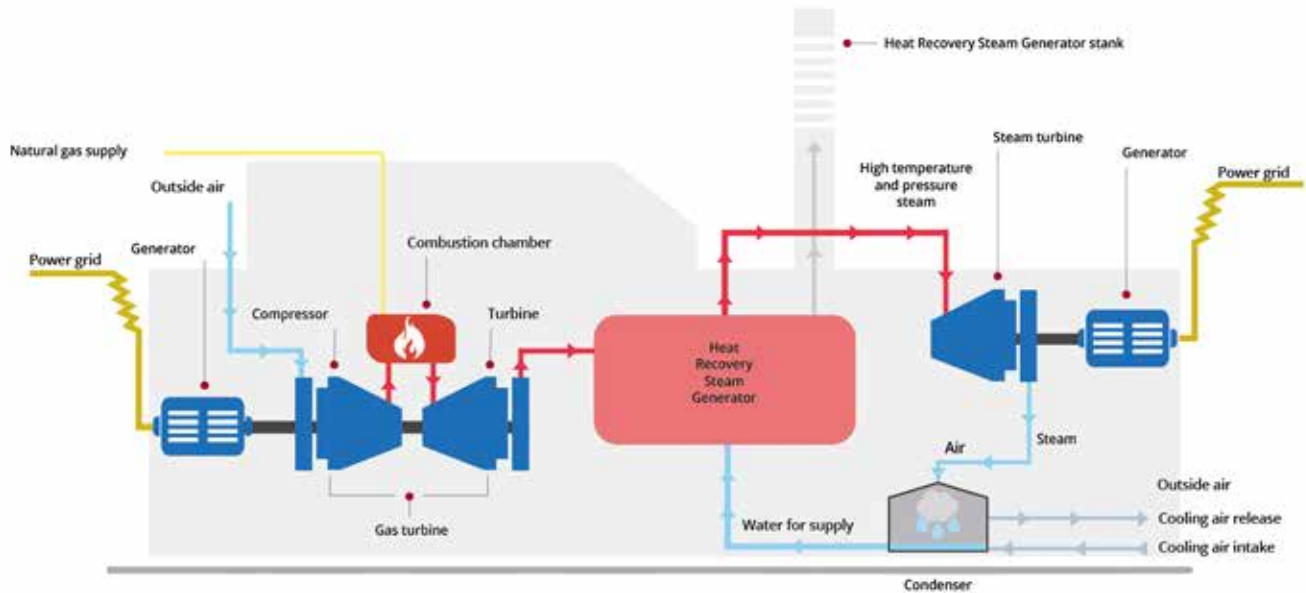
Certifications

ISO 14001 (Environment)
EMAS IT 1708 (Environment)
ISO 45001 (Safety)



Address

SP 7, km 9+ 430
13046 Livorno Ferraris (VC)



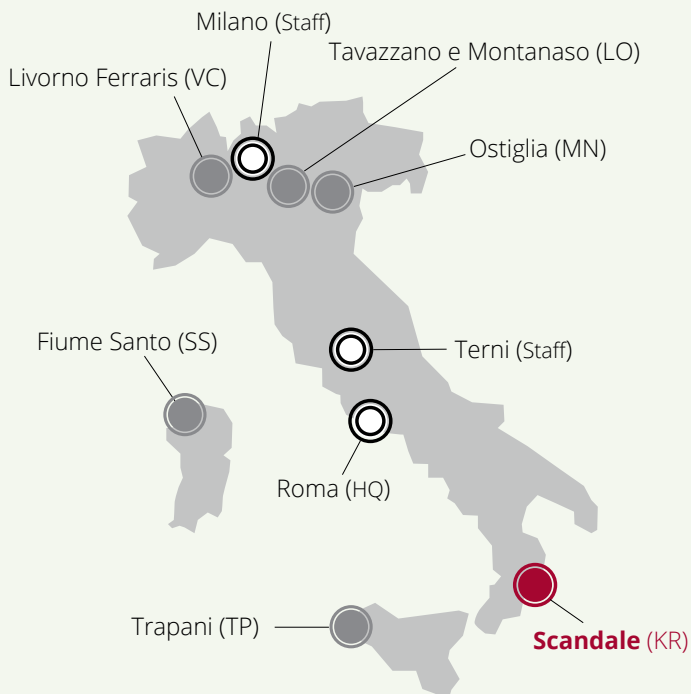
THE SCANDALE POWER PLANT

The Scandale thermoelectric power plant is an infrastructure located in the municipality of Scandale in Calabria, that uses **efficient** technologies. Run by Ergosud, which is jointly owned by the EPH Group and A2A Gencogas S.p.A., it has an installed capacity of **814 MW** and consists of two combined-cycle generation turbines (CCGT), each with a nominal power of 407 MW. With an efficiency of **56%**, the power plant has been in operation since 2010, and comprises a gas turbine and a steam turbine with associated electric generators for each unit.

The power plant has ISO 14001 and ISO 45001 environmental certifications and is included on the EMAS European Register. Through a dedicated **gas pipeline** approximately 6 km long, the power plant is powered by the national grid and connected to the Terna high voltage power plant by way of an underground power line spanning approximately 100 m.

The power plant **was designed to reduce the impact on the environment, minimizing emissions into the atmosphere and waste**. Indeed, the plant is equipped with a system that enables the recovery of all wastewaters and the majority of rain water, minimizing the amounts drawn from the local area.

In close collaboration with ARPA Calabria, and in order to monitor the quality of air in the Scandale municipality and the surrounding areas, the power plant installed a monitoring network, with the data obtained being made public in real time. Furthermore, since 2017, Unit 1 has been equipped with a catalytic converter to reduce CO.



Type of plant

Combined cycle thermoelectric power plant



Net installed capacity

814 MW



Area

7,8 hectares



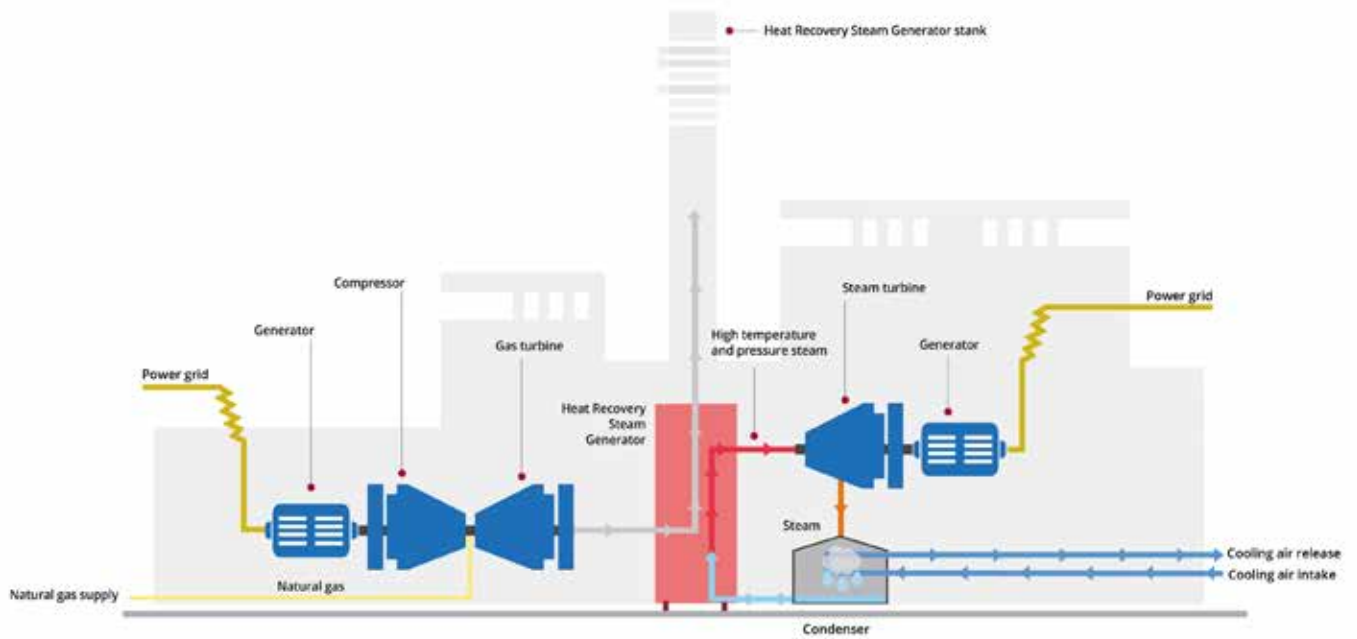
Certifications

ISO 14001 (Environment)
EMAS IT 001609 (Environment)
ISO 45001 (Safety)



Address

S.S. 107 bis - dir. Papanice
Loc. S. Domenica
88831 Scandale (KR)



Profile and key figures
Sustainability at the heart of the
development strategy

The EPH Group

PROFILE AND KEY FIGURES

EPH (Energetický a průmyslový holding, a.s.) is among the leading electricity producers in Europe, with its headquarters in Prague and offices in the Czech Republic, Slovakia, Germany, The Netherlands, the United Kingdom, Ireland, France, Switzerland and Italy. With a workforce of around **22,000 people**, the Group has over 70 companies which operate throughout the value chain, vertically integrating activities such as the development of efficient cogeneration systems, the production of electrical energy and natural gas storage, transport and distribution. The Group's field of action also includes logistics platforms and gas infrastructure management. In 2022, the EPH Group's revenue was €37.1 billion, while adjusted EBITDA totaled €4.3 billion.

EPH is one of the leading producers of electricity in the Czech Republic and the second largest electricity distributor and supplier in Slovakia. EPH operates the longest natural gas transmission route in Europe and

is **the largest gas distributor in Slovakia**. On January 25, 2023, the Group entered the Dutch market through the acquisition by its subsidiary EP Netherlands of two gas-fired power plants, giving EPH a prominent role in the Dutch energy market as well.

The activities carried out by the Group are divided into three business areas:

1. EP Power Europe (EPPE): a direct shareholder of EP Produzione, is the EPH Group's power generation company which operates in eight European countries, including Italy, with a balanced portfolio of renewable and conventional low-emission sources.

2. EP Infrastructure (EPIF): handles the transportation of gas, the distribution of gas and energy, the generation of heat and energy and the storage of gas.

3. EP Logistics International (EPLI): is involved in freight transport by rail, freight forwarding, the leasing of railway rolling stock and intermodal operations.

EP Real Estate (EPRE), which manages EPH's real estate assets, is now part of the EP Corporate Group, which owns 56% of EPRE, as of January 1, 2023. The remaining 44% is controlled by the investment fund J&T Capital Partners.

SUSTAINABILITY AT THE HEART OF THE DEVELOPMENT STRATEGY

Sustainability is at the heart of the Group's development strategy, which for years has been promoting actions and programs to reduce its environmental footprint, while always keeping a keen eye on the specific features of the territories in which it operates and on the social dimension of its activities - first and foremost, the health and safety of its workers.

The Group is committed to **replacing coal as an energy source** by 2030 in all markets in which it operates, with the exception of Germany, where it is proceeding in line with the *Kohleausstiegsgesetz*, the national legislation that maps out the pathway for the reduction and termination of coal-fired electricity generation by 2038 at the latest.

The Group has already shut down some coal-fired power plants and is replacing others with natural gas technologies; it has started investing in state-of-the-art combined-cycle gas turbine power plants with provision for use with hydrogen in the future; and it has invested more than €2.4 billion in power plants with a zero or low carbon footprint. These efforts have brought about a reduction of **38% in CO₂ emissions compared to 2015 levels, and made it possible to generate 8% more energy from renewable sources.**

The Group is striving to **reduce emissions by 60% by 2030**, get rid of coal and become a leader in the transition to a hydrogen-based future, with the goal of **achieving carbon neutrality by 2050**, as per EU targets.

Since 2015, the EPH Group has succeeded in reducing SO₂ emissions by 70% while increasing electricity production, and since 2017, EPH has **reduced natural gas emissions by 16%.**

Many of these results have been made possible thanks to **EP New Energies**, a company that has implemented several large-scale sustainable projects since its founding in 2019 and has other wind, ground-mounted, rooftop and floating photovoltaic and hybrid projects in the pipeline, for a total capacity of over 3,000 MW.

The **EPH Foundation** is committed to promoting social initiatives and programs to support human rights, environmental protection, the preservation of natural resources, and the health of people, children and young people.

As of December 2022, EPH received an **ESG risk rating of "medium"**, placing it among the top 20 companies with the lowest ESG risk in the multi-utilities industry (more precisely, EPH ranked 17th out of the 84 companies analyzed). The survey, conducted by Sustainalytics, confirmed that the Group's ESG policy follows best practices, which points to strong accountability to investors and the public.

Since 2021, a set of policies has been developed and **implemented in all companies belonging to the Group.** These policies define roles, responsibilities and procedures for environmental protection, health and safety, asset integrity, cybersecurity, inclusion and diversity. In addition, Gary Mazzotti was appointed as an independent member of the Board of Directors of EP Infrastructure and EP Power Europe with the **specific assignment to manage the ESG agenda**, following international best practices.

Since 2015, EPH has voluntarily published a Sustainability Report to record the details of the Group's commitment and achievements in the various areas of sustainability.

The Corporate Governance system
Corporate bodies and internal committees
The Board of Directors
The Organization, Management and Control Model
Tax governance
Sustainability Governance
The HSE Commitment

Governance

[GRI 2-9] [GRI 2-15] [GRI 2-16] [GRI 2-24] [GRI 2-26] [GRI 2-27]

THE CORPORATE GOVERNANCE SYSTEM

EP Produzione has adopted a system of corporate governance based on **fundamental ethical principles**, such as transparency, honesty, fairness and respect for people and the environment, which draws on **international best practices**.

Commitment and passion are the pillars that incarnate the company's identity and steer the Group's daily activities. Together, these **values** form the foundations underpinning EP Produzione's **mission**: to ensure the continuity of the electricity supply, while sustaining the country's energy transition, and to guarantee the highest standard of services to citizens and businesses alike.

The governance model integrates these values into the Group's business model and helps disseminate the **corporate culture** at all levels, raising awareness regarding EP Produzione's role in creating **value for**

the community. In this way, the Group undertakes to manage the company in a responsible, ethical and sustainable manner, protecting the environment and all stakeholders involved.

CORPORATE BODIES AND INTERNAL COMMITTEES

EP Produzione aims to create value for its shareholders and stakeholders through a corporate governance system that controls business risks and guarantees the integrity of the decision-making processes. The system includes:

- **The Shareholders' Meeting**, responsible for all decisions in the limits provided for by law and the Articles of Association of the Company;
- **The Board of Directors (BoD)**, which takes care of ordinary and extraordinary administration;

- **The Board of Statutory Auditors**, responsible for verifying the legitimacy of the Company's work;
- **The Audit Firm**, responsible for financial auditing;
- **The Supervisory Body**, in accordance with Italian Legislative Decree 231/2001, which monitors the Company's risk of committing offenses.

In order to supervise and support the decision-making processes, the Group has established the following committees:

- **The Procurement Committee**, responsible for supervising the company's procurement processes for goods and services;
- **The Project Development Committee**, which supports the management in strategic investment processes;
- Specific **project committees**, that assist the management in overseeing the development and execution of strategic projects;
- **The Internal Audit Committee**, that, based on a three-year audit plan approved by the BoD, is tasked with verifying compliance with company procedures and policies;
- **The Risk Committee**, divided into credit, market, and operational, which oversees hedging activities and related financial, market, and operational risks;
- **The Data Protection Committee**, which is responsible for verifying the company's compliance with regulations on personal data processing (GDPR) and cybersecurity (NIS).

THE BOARD OF DIRECTORS



Peter Černák

Chairman of the Board of Directors of EP Produzione S.p.A. and Fiume Santo S.p.A.

He graduated in International Management from the Faculty of Economics at the University of Prague and Finance & Investments from the Rotterdam School of Management (the Netherlands). He began his professional career in Ernst & Young in 2009, before collaborating with Unicredit Management Consultancy from 2011 to 2013. In 2013, he joined Energetický a Průmyslový Holding, handling activities associated with the distribution of gas (SPP) and electrical energy (SSE-Distribucia) in Slovakia and managing the Group's financial risk. Since 2015, he has been overseeing the activities of the companies in the EPH Group in Italy as a Member of the Board of Directors and in his capacity as CFO (until April 29, 2019) of EP Produzione S.p.A. and Fiume Santo S.p.A.



Luca Alippi

CEO of EP Produzione S.p.A. and Fiume Santo S.p.A.

Chairman and CEO of EP Produzione Centrale Livorno Ferraris S.p.A., CEO of EP Produzione Centrale di Tavazzano Montanaso S.p.A. and Chairman of Ergosud S.p.A. Having graduated in Engineering from the Politecnico di Milano, he held management positions at various energy companies, working in production/the wholesale market and in the retail market. At E.ON since 2000, he launched and ran the first operating companies in Italy dedicated to the sale of electrical energy and the development of generation capacity, before becoming General Manager of E.ON Energia S.p.A. and CEO of E.ON Produzione S.p.A. Since 2016, he has been a member of the Strategic Committee of Assoelettrica and, since July 2020, he has been Vice-Chairman of Elettricità Futura.



Marek Spurný

Member of the Board of Directors of EP Produzione S.p.A. and Fiume Santo S.p.A.

He graduated in 1998 from the Faculty of Law at Palacky University Olomouc, in the Czech Republic. Following initial experience at a local law firm, he went on to work at the Czech Securities Commission, the government regulatory agency with oversight over the capital market, and was appointed Head of the Committee of the Securities Issue Department in November 2000.

He represented the Czech Republic at CESR-Fin (a sub-committee of the Committee of European Securities Regulators for financial reports). He is also a co-author of the Czech National Corporate Governance Code, based on the principles established by the Organization for Economic Cooperation and Development (OCSE).



Miroslav Mihaliak

CFO of EP Produzione S.p.A.

Graduated in Finance, Investment and Banking faculty at the Economics Faculty of Economic University in Bratislava (Slovakia). Started his professional career in 2009, in the Assurance department of PriceWaterhouseCoopers (PwC) Slovakia. In 2011 he moved to the advisory practice within PwC, focusing on M&A deals and valuations, acting as a manager from 2014.

In 2016 he joined private equity company Eco-Invest and its M&A and internal business development department and from 2018 he was a Vice Chairman and Director for Investment and Strategy at Tauris Group. From 2019 he is the CFO of EP Produzione and project Manager in EP Power Europe, following all group activities in Italy.

THE ORGANIZATION, MANAGEMENT AND CONTROL MODEL

EP Produzione has adopted an organizational, management and control model that complies with the provisions of Italian Legislative Decree 231/2001 that guides the activities of the company with regard to transparency and responsibility. The model contains rules and tools to **prevent offenses and mitigate the risk of irregularity**. To support transparent and responsible management, the Group also uses the Articles of Association, intra-group contracts, the mandate and power-of-attorney system, and organizational communications that clarify responsibilities and procedures in the context of quality, environmental and safety management systems adopted at the power plants. **The monitoring of effectiveness and compliance with the rules is entrusted to a specific Supervisory Body** to which employees and collaborators can send their reports.

EP Produzione has adopted a **Code of Ethics and Conduct** that outlines the principles, values and behavioral standards that inspire its own actions and those of its stakeholders, such as business ethics and integrity and environmental protection. Specifically, the Code defines the general ethical principles for corporate activities, providing mechanisms for the application and control of the Group's internal and external activities and relations. The Code of Ethics is an **integral part of the 231 Organization and Management Model** and constitutes an effective tool to prevent conflicts of interest, episodes of corruption and unlawful or irresponsible behavior by those acting in the name and on behalf of the company. The document explicitly refers to the Italian Constitution and the United Nations Agenda 2030 and underlines sustainability as a guideline for the Group's long-term success.

Pursuant to Italian Legislative Decree 231/2001, EP Produzione has implemented a whistleblowing management system, enabling employees to **make reports** that could be crucial to combating offenses and irregular conduct. With the aim of further simplifying the

system, in addition to the direct channel to the Chairman of the **Supervisory Body**, EP Produzione has also set up a dedicated **e-mail address** that is only accessible to members of the Body, to which **employees can send their reports, which may be anonymous**. With regard to their corporate activities, consultants, collaborators and business partners report directly through the channels provided in the Organizational Model and Code of Ethics.

No cases of non-compliance with the laws and regulations were recorded during the three-year period 2020-2022.

To promote strong institutions across the entire Group, EPH has established a set of policies to ensure inclusion, accountability, and integrity. The policies have been adopted by EP Produzione also through the implementation of specific ESG policies, and the underlying principles are part of the ethical code that is part of the 231 Organizational and Management Model.

TAX GOVERNANCE

EP Produzione is aware of its social role and acknowledges that its activities contribute to the generation of wealth, including through taxes on its income. From this standpoint, the payment of taxes is considered an element of **corporate social responsibility** and is expressed in tax compliance.

With the aim of ensuring proper management of taxation, EP Produzione has adopted a **Tax Governance Policy**, which the Board of Directors regularly reviews, verifying its implementation, suitability, adequacy and effectiveness.

The Tax Policy includes a system for **detecting potential tax risks** and the adoption of control mechanisms to ensure compliance with tax laws and regulations. Additionally, the Policy requires that Board members receive information on the main tax implications of operations or matters submitted for their approval, if they entail a significant decision-making factor.

THE MAIN REGULATORY AND VOLUNTARY SYSTEMS AT THE POWER PLANTS

Integrated Environmental Authorization (Autorizzazione Integrata Ambientale - AIA)	Authorization required to run the plant, subject to periodic audits by ARPA and ISPRA.
Emissions Trading Scheme – ETS	European mechanism to monitor greenhouse gas emissions, mandatory for large plants and subject to the annual issuance of a certificate by accredited external bodies.
Seveso III Directive - Risk of Major Accident	Specific regulation for plants subject to the risk of major accidents associated with the presence of hazardous substances (Fiume Santo, applicable until October 2022), subject to controls by ISPRA and the regional technical committee of the Ministry of the Interior, which includes the fire department, the Region and the Province, among others.
Consolidated Act on Excise Duties	It regulates management of compliance with tax obligations associated with production activities and is subject to periodic checks by Customs.
ISO 9001, 14001 and 45001	International standards for management systems concerning quality, the environment and worker health and safety, respectively, subject to annual verification by accredited external bodies.
EMAS	European registration that provides for verification of conformity with environmental standards by ARPA and an analysis by ISPRA of the Environmental Declaration prepared by the power plant.

Drawing on the principles outlined in the Code of Ethics and Conduct, EP Produzione's fiscal approach is designed to guarantee:

- **Legality:** compliance with applicable tax regulations and laws.
- **Transparency and cooperation:** establishing a transparent and cooperative relationship with the tax authorities.
- **Value:** the appropriate management of taxes, viewed as a necessary business cost, with the aim of creating value for stakeholders in the medium- to long-term.

SUSTAINABILITY GOVERNANCE

As early as 2020, EPH introduced a number of **corporate policies related to sustainability** and developed a structured governance model to enable the management of ESG issues at Group level. Compliance with these policies is ensured through various committees, notably EP Power Europe's Health, Safety, Environmental and Security Committee, and their implementation is supervised by the ESG Agenda Manager, Gary Mazzotti. During 2021, EP Produzione adopted these policies, further reinforcing principles that had already been a part of its governance system for some time.

The **ESG Master Policy** defines the Group's fundamental principles of environmental, social and governance sustainability. The policy underlines EP Produzione's commitment to sustainable development, the underlying principle of which is the development of value, shared with the communities in which the Group operates, fully respecting the environment and human rights.

THE HSE COMMITMENT

EP Produzione's commitment to safety, protection of the environment and the health of its people is expressed in a series of rules on awareness and responsibility, as follows.

We work safely

For EP Produzione, the health and safety of people represent essential values across all its activities. **The scenario goal is "Zero accidents"**: all types and forms of accidents and injuries can be prevented. The corporate culture has incorporated the following principles:

- To guarantee a safe and ergonomic work environment for all, that avoids causing harm of any kind to health and protects the psychological and physical wellbeing of people.
- To endorse all aspects of prevention, taking action with regard to the work environment and awareness of the risk to individuals, and believe that risk reporting is a key factor in preventing accidents.
- To require all collaborators, company employees and suppliers to look after one other and immediately interrupt any unsafe activity or work conditions.
- To promote improvement of workplace safety and health, inviting people to take an active role and engaging with the parties involved.

THE ESG POLICIES OF EPH

ESG Master Policy	The document sets out a comprehensive policy framework and basic guidelines for the EPH Group, as well as defining the basic principles for sustainability policies within the Group and its subsidiaries.
Environmental Policy	The policy describes the Group's basic principles in terms of climate change and the reduction of the carbon footprint, protection of biodiversity, the Environmental Management System, the environmental impacts of the product portfolio, customer efficiency, regulatory compliance, the promotion of renewable energy, energy and resource efficiency, waste management and handling of the final cycle.
Biodiversity Policy	The protection of biodiversity in the areas where the EPH Group operates is one of said company's key goals. The aim of the policy is to provide a comprehensive and coherent framework of basic commitments and principles in the area of biodiversity.
Operating Policy	The policy covers the fundamental principles that the Group adheres to in terms of access to basic services, health and safety management, environmentally safe operation of facilities, the social impact of products, innovation and modernization, emergency management, stakeholder commitment and responsible marketing.
Procurement Policy	The policy focuses on monitoring the supply chain and urging suppliers to comply with the local regulations and Group policies on human rights, employees and environmental issues.
IT Cyber security Policy	The companies belonging to the EPH Group follow the key principles of cybersecurity (security governance, access control management, protection from malware, network security, IT resilience, ICS, remote workstations, etc.) and are responsible for selecting and implementing specific security measures to fulfill these principles.
Code of Conduct	The EPH Group Code of Conduct contains standards of behavior that must be observed by all employees and is designed to guarantee good relations with all stakeholders.
Tax Governance Policy	The aim of this policy is to ensure compliance with the tax regulations in the various countries and territories in which the Group operates, the prevention and reduction of major tax risks and the strengthening of relations with the tax authorities.
Equality, diversity and inclusion Policy	The purpose of this policy is to guarantee equality, fairness and respect for all in the Group's work and to combat and avoid all forms of unlawful discrimination.
Whistleblower Policy	The purpose of this policy is to provide EPH employees with the means to report problems and violations related to compliance issues without fear of retaliation or punishment.
Asset Integrity management Policy	The policy outlines the principles and practices regulating asset management decisions in order to ensure that EPH handles asset integrity risks in all the facilities it designs, builds or manages, in a responsible manner.
Anti-corruption and anti-bribery Policy	The acceptance of gifts and donations, including charitable donations, is regulated. The receipt or payment of bribes, including concessions on payments, is strictly prohibited.
Anti-money laundering Policy	The so called four-eyes principle is applied to business transactions and cash payments exceeding a preset limit.
Sanctions Policy	The Group does not foster or maintain business relations with persons, bodies or countries subject to economic or financial sanctions, trade embargoes or other restrictive measures imposed by the European Union, the United Nations, the United States of America or the United Kingdom.
Anti-trust Policy	All employees and managers are required to comply with the antitrust laws and are aware of the serious consequences ensuing from any violation of said laws.



CARE AND RESPECT FOR THE ENVIRONMENT

The ongoing commitment of EP Produzione is to monitor all environmental aspects via its activities, maintaining and improving the efficiency and performance of its electrical energy production plants:

- To use natural and energy resources in a mindful and sustainable way, in accordance with efficiency, affordability and quality requirements.
- To respect and have regard for the local area and biodiversity in the places where EP Produzione's plants and infrastructures are located.
- To work on a preventive basis to minimize emissions and discharges at source, promoting the reduction, reuse and recovery of all forms of waste.
- To promote management measures and individual conduct oriented towards respect for the environment.



A 10-point pact

1. To work in accordance with the regulations in force to prevent all forms of "Toxic Action" while carrying out business activities.
2. To all serve as an example of prevention.
3. To be a sustainable business.
4. To avoid accidents of all kinds through accurate and ongoing risk analyses.
5. To systematically monitor environmental, process and performance parameters.
6. To establish clear roles and responsibilities within the organization.
7. To develop all workers' skills through constant training and exchange of information and operating experience gained.
8. To promote awareness and dissemination of experiences and results achieved at all levels, systematically analyzing all adverse events.
9. To regard mistakes as a source of learning and never hide them.
10. To work with suppliers that have a culture of prevention, quality and sustainability.



The 2022 results
Economic value generated and distributed
The investment plan

Economic and financial results

[GRI 201-1]

THE 2022 RESULTS

In 2022, EP Produzione achieved consolidated revenues of over **4.7 billion euros**, a significant increase compared to 2021. The increase in **gross operating margin** compared to 2021 is mainly attributable to the increase in margins in sales on electricity markets and the introduction of the new capacity market regulations. Financial management has further improved the economic results achieved.

However, these effects were heavily offset by the **increase in tax charges** due to the solidarity contribution against high electricity bills introduced with the 2023 Budget Law, bringing the net result below that achieved in the previous year.

REVENUE - Thousands of euros (consolidated values as at 12/31)	2022	2021	2020
Total revenue	4,735,941.16	2,568,789	1,151,111
Gross operating margin	325,780.37	260,061	222,802
Operating result	253,229.18	183,520	176,062
Profit of the EP Produzione Group	98,389.74	145,230	123,824

ECONOMIC VALUE GENERATED AND DISTRIBUTED

The overview of distribution of **economic value generated**¹⁶ offers the opportunity to analyze the distribution of value generated by EP Produzione in the form of costs, highlighting the flow of resources to the stakeholders that contributed, in various ways, to its pro-

duction. In 2022, the value distributed by the Group was over **€4.5 billion euros**.

ECONOMIC VALUE GENERATED	2022	2021	2020
Euro (consolidated values as at 12/31)			
Economic value generated	4,748,252,106-10	2,584,167,057.00	1,265,638,862.54
Economic value distributed	4,577,311,173.16	2,362,395,513.07	1,095,073,913.61
Suppliers	3,606,024,267.00	1,875,849,764.00	785,837,857.82
Personnel	49,625,427.00	47,709,899.00	46,383,120.00
Capital providers	8,712,086.69	1,345,698.47	4,514,773.02
Public Administration	164,189,029.56	57,735,476.83	53,955,470.09
Other operating costs	748,760,362.91	379,754,674.77	204,382,692.68
Economic value withheld	170,940,932.94	221,771,543.93	170,564,948.93
Amortization and depreciation	54,258,718.00	55,882,715.00	27,206,581.00
Provisions	18,292,476.00	20,657,858.00	19,534,102.00
Profit	98,389,738.94	145,230,970.93	123,824,265.93

With regard to Public Administration bodies, over **€164 million euros** were paid over the course of the year in the form of tax revenues, contributions and fees. **10%** of these resources were provided to local Public

Administration bodies in the form of regional, IMU and TASI taxes, state fees for use of public water, refuse charges and other contributions.

DISTRIBUTION OF PAYMENTS TO PUBLIC ADMINISTRATION BODIES (€) - Euro (consolidated values as at 12/31)	2022	2021	2020
Payments to local PA	15,779,336.52	11,004,251.71	10,389,874.51
Taxes to Regions	12,805,105.56	7,947,399.88	7,388,228.72
IMU and TASI taxes	2,491,349.04	2,514,242.27	2,533,941.39
State fees for water withdrawal	427,123.06	323,378.13	321,854.20
Refuse charges and stamp duty	49,868.00	94,536.43	42,763.18
ARPA (Regional Environmental Protection Agency)	5,890.86	124,695.00	103,087.02
Payments to state PA	148,409,693.04	46,731,225.12	43,565,595.58
State taxes	145,617,581.44	44,931,393.12	41,779,943.28
Contribution to the Authorities	894,567.55	518,805.53	556,175.67
Extraordinary items	7,685.23	139,675.27	6,139.14
Other	1,889,858.82	1,141,351.20	1,223,337.49
Total	164,189,029.56	57,735,476.83	53,955,470.09

¹⁶ The information on economic value generated has been provided in accordance with the 201-1 indicator set out in the GRI Standards, to which reference should be made for more details.

THE INVESTMENT PLAN

EP Produzione has outlined an investment plan that looks ahead to 2027, the goal of which is to implement new capacity projects and improve the efficiency of existing assets: more than €700 million will be invested over the 2023-2027 plan period.

In 2022 investment increased significantly, exceeding €260 million (+50% compared to the previous year). This increase is mainly due to the construction of the two new production units in Tavazzano and Montanaso, and Ostiglia. .

INVESTMENT - (thousands of euros)	2022	2021	2020	2023-2027
Investment for new capacities	233,688	97,293	14,183	567,326
New Tavazzano Unit	116,154	95,049	11,396	155,883
New Ostiglia Unit	116,331	1,042	1,037	394,290
Other development projects	1,203	1,202	1,750	17,203
Environmental improvement¹⁷	6,778	11,352	7,281	9,810
BRefs	4,566	8,241	3,887	_*
Other plant improvements	2,212	3,111	3,394	9,810
Decommissioning activities	4,615	10,217	7,659	39,130
Maintenance of existing assets	16,826	12,690	26,526	88,011
TOTAL	261,907	131,552	55,649	704,277

* The activity at the Fiume Santo power plant to reduce emissions and dust as per the BRefs was completed at the end of 2022.

In line with the Industrial Plan, EP Produzione has made and planned investments on the basis of the four macro-categories shown above, i.e. investment for new capacities, environmental improvements, decommissioning activities and maintenance of existing assets.

The majority of the investments were made in 2022: **€233 million out of a total of €261 million were allocated to the construction of the two new production units in Tavazzano and Ostiglia.** The company will pursue this significant economic commitment for the next three years until the production units are commissioned. At the same time, and with a view to future energy scenarios, authorization requests and feasibility studies are underway for the development of repowering solutions for the other power plants and replacements with new technologies useful for the energy transition.

In the three-year period 2020-2022, **€25 million was allocated for environmental improvements to the existing production facilities**, essential to ensure compliance with the increasingly stringent regulatory levels. Some 70% of the resources were allocated for upgrading production units 3-4 of the Fiume Santo power plant in order to reduce NO_x, SO_x and dust emissions, an activity completed in 2022. At the same time, environmental improvements were also carried out on the Group's other plants, and said improvements are scheduled to continue in the future to bring them into line with current regulations.

In 2022, a series of decommissioning activities, such as demolition, refurbishing and reclamation, were carried out in areas where production units had been out of operation because their technical life cycle had ended. During this three-year period 2020-2022, these activities involved the sites of Units 1-2 in Fiume Santo, the Centro Energia Ferrara, Unit 4 in Ostiglia,

¹⁷ The item Environmental Improvement includes certain costs that have been classified, for accounting purposes, in the operating costs.

Units 7-8 in Tavazzano and the Borgo San Giovanni area in Ostiglia. In particular, the last two have created space to accommodate the construction of new production units. In 2023-2027, the plan to refurbish and redevelop the industrial sites will continue with a total investment of approx. €40 million, freeing up areas in which to develop new energy technologies.

The resources invested to increase the integrity and security of the assets, and for their development and improvement, grew considerably over the three-year period. To manage the production infrastructures, which are exposed to cyclical stresses that can, in the long run, damage the power plants, advanced diagnostic tools, based on predictive analytics, are required.

The adaptations and technical improvements made on the facilities still in operation cost approx. €56 million over the three-year period, accounting for 12% of the total volume of expenditure. Investments are set to continue in the 2023-2027 period, in order to guarantee the reliability, availability and resilience of the assets.

Materiality Analysis

[GRI 2-29] [GRI 3-1] [GRI 3-2] [GRI 3-3]

An effective sustainability report must be developed around **material topics**, i.e., the environmental, economic and social issues of greatest importance to the organization. In 2022, in line with the terms of the new GRI Standards 2021 and looking ahead to the future single European standard developed by the European Financial Regulation Advisory Group (EFRAG), now under close examination by the European Commission, EP Produzione updated its materiality analysis.

This activity enabled a **preliminary exploration of the positive and negative impacts - current and potential, generated and endured - of the Group's activities along the value chain.**

The analysis was carried out from a double materiality perspective, assessing both the impacts generated by EP Produzione and those endured on the outside.

KEY TOPICS

- #1 Health and Safety
- #2 Emissions into the atmosphere
- #3 Technological innovation and asset integrity
- #4 Phase-out of coal and future of the site
- #5 Generation of value for the local area
- #6 Reliability and continuity of service
- #7 Protection of environment and biodiversity
- #8 People's wellbeing
- #9 Digitalization and IT security

OTHER RELEVANT TOPICS

- #10 Rootedness and relationship with the local area
- #11 Transparency and dialog with public and regulatory institutions
- #12 Skill development
- #13 Education for the energy transition
- #14 Sustainability in the supply chain
- #15 Circular economy
- #16 New generations and attraction of talent
- #17 Diversity and inclusion

These impacts were assessed in terms of significance, considering 4 parameters: **scope, perimeter, irreparability and likelihood of occurrence**. The 9 topics with the highest significance are those reported within this document.

Compared to last year, **atmospheric emissions** have become a topic in their own right, still ranking second in terms of impact priority. **Environmental protection** remains a priority issue for preserving the soil, water and air in good condition and for the promotion of re-naturalization work. For EP Produzione, protecting the environment is closely related to the safeguarding of **biodiversity** in the areas surrounding the production sites.

Digitalization and IT security have become a priority for EP Produzione, in line with the external context that exposes the company to greater risks in terms of IT security and requires the adoption of new digital solutions.

A number of issues were pinpointed during the selection exercise as key elements for responsible action on the part of the Group and a report on them is provided in this document.

- **Long-term growth and value generation:** generating economic value in the long-term both for the company and the local area.
- **Relationship and dialog with stakeholders:** regular, effective and transparent communication with all.
- **Integration of sustainability into the business:** integrating one's vision of sustainability and responsibility into the strategy and activities of the business.
- **Ethics and integrity in business management:** doing business according to the principles of ethics and integrity, complying with regulations and striving to combat corruption.

Key facts and figures
The Improvement Plan
Safety culture
Promoting health
Safety on worksites

Health and Safety

[GRI 3-3] [GRI 403-1] [GRI 403-2] [GRI 403-5] [GRI 403-6] [GRI 403-7] [GRI 403-9]

KEY FACTS AND FIGURES

2022 was a good year for **health, safety and environment** (HSE) in EP Produzione. The results confirm a stable and proactive approach to **risk prevention and HSE culture**.

In 2022, against the 2.6 million hours worked by company employees and employees of contracted companies, there was **one accident** involving an **injury** when an EP colleague at the Fiume Santo power plant tripped on a road curb.

The overall frequency of accidents, calculated in terms of Lost Time Injury Frequency (LTIF) was 0.4 per million hours worked, a significant improvement compared to the previous 2 years.

There were some Near Misses which garnered special attention: these were analyzed and disseminated within the organization in order to improve prevention measures.

THE IMPROVEMENT PLAN

EP Produzione's HSE culture is based on prevention and on striving beyond mere compliance.

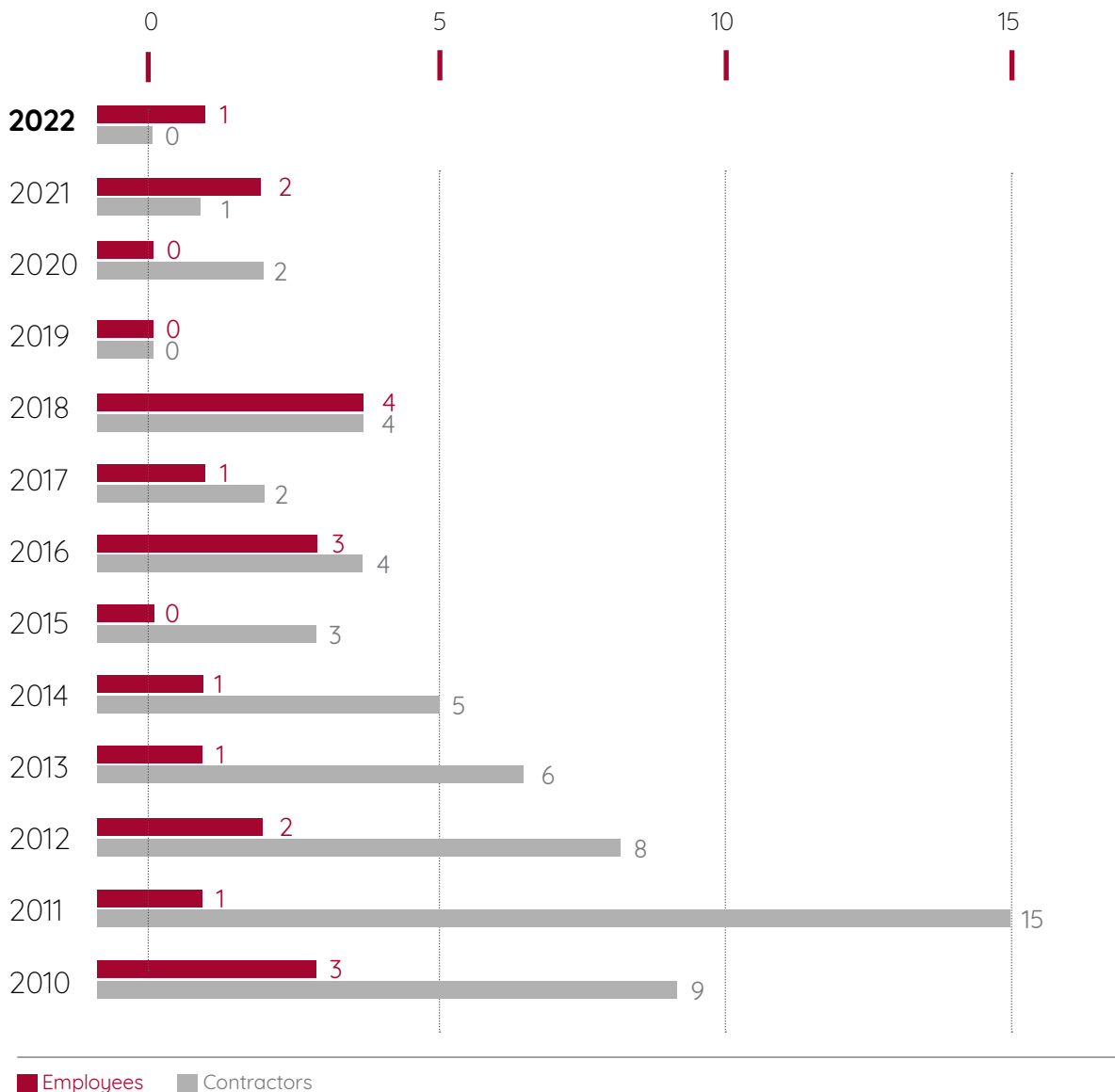
EP Produzione avails itself of external bodies to certify its commitment, beginning by assigning responsibilities to people in relation to Health, Safety and Environmental matters at all levels of the organization and also sharing experiences and best practices, with periodic reviews of the risk management models to progressively reduce tolerance limits.

To date, all of EP Produzione's power plants, i.e. the locations most at risk, **are ISO 45001 certified**.

Each power plant undergoes internal and external audits on an annual basis and at the request of each individual power plant. The staff areas, which mainly carry out press office activities at the Rome, Terni and Milan locations, are managed using procedures deriving from the management systems, even although they do not possess dedicated HSE certifications.

LTI - Lost Time Injuries (Number of injuries requiring absence from work in addition to the day of the actual injury)

No. of accidents/million hours worked



EP Produzione's commitment to HSE matters translates into the **2022-2024 Improvement plan** which defines the objectives that aim at the development of a health, safety and environmental culture and at minimizing operational risks in these areas, pursuing the activities started in the previous plan.

The Plan acknowledges the close link between HSE and sustainability and underlines the crucial role the latter plays in safeguarding the health and safety of the employees and the environment in which EP Produzione operates.

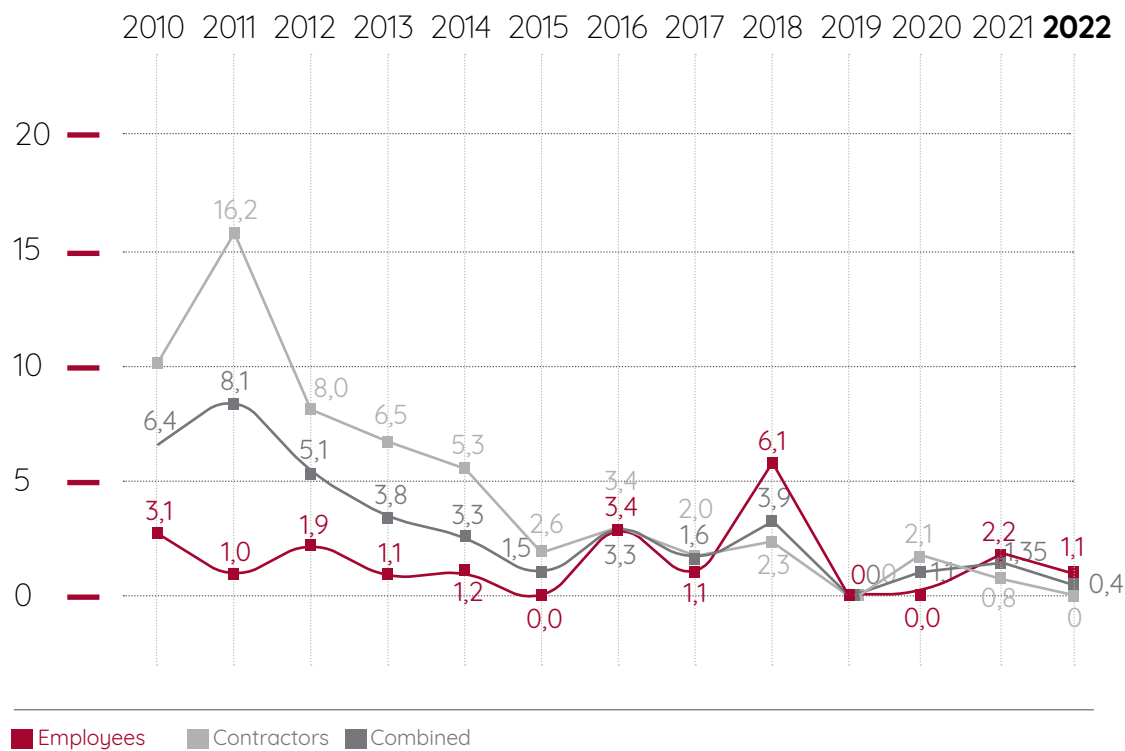
The plan lays down the conditions to ensure a **safe energy transition** through three synergistic lines of action:

- **Strengthening HSE and sustainability culture**, through reinforcement initiatives and the use of systematic methods, learning from positive and negative experiences within and outside the company, and working in close cooperation with suppliers to improve their HSE performance.

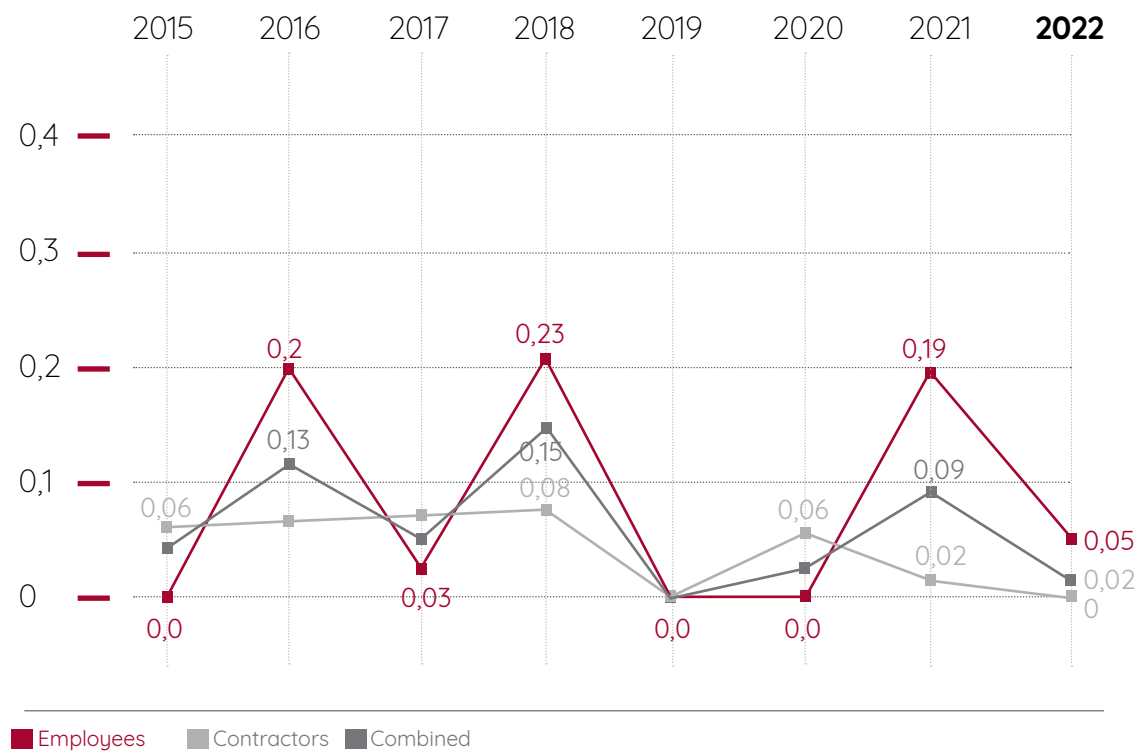
HEALTH AND SAFETY

LTIF - Lost Time Incident Frequency (rate of accidents/million hours worked)

No. of accidents/million hours worked



Gravity Index



- **Confirming the horizon of zero accidents in operating plants and among the staff of the various locations**, with the consolidation of Asset Integrity management, including natural hazards, reinforcing control over the most severe risks and progressively adopting digital tools to support HSE performance.

- **Promoting HSE management in the new capacity projects**, through solid project organization to manage HSE issues, drafting training plans and drawing in all the people involved. This is also achieved by imposing system procedures on the projects, transferring experiences gained during the construction of the new unit in Tavazzano and Montanaso to other EP Produzione projects and drawing inspiration from external best practices.

SAFETY CULTURE

EP Produzione believes that a safety culture is fundamental for the protection of its people and to get the best out of its business. This awareness underpins everything we do at EP Produzione, summed up neatly in the motto **#abbicura** (takecare). In order to keep the spotlight on these issues, EP Produzione regularly organizes **Safety Hours** during which HSE is discussed openly with all its collaborators, and **Safety Walks & Talks (SWT)**, i.e. on-site inspections aimed at identifying risks or recognizing good practices through an informal dialog between those who organize the SWT and those who attend it.

In 2022, EP Produzione renewed its **health and safety training for its employees**, which is scheduled annually, based on specific needs. The courses covered a wide range of topics, such as subcontracted activities, ESG issues, regulatory updates on fire safety inspections and the management of the role of the workers' safety representative.



The training was given in cooperation with the Italian HSE training association, AiFOS, and the company Tecnologie d'Impresa and consisted of more than **1,500 hours of training on HSE topics**, with an average of approx. **6 hours per participant**.

At the end of 2022, **training, provided by Elettricità Futura, commenced on the figure of the qualified supervisor**, a program that is to continue in 2023 in cooperation with the Italian HSE training association, AiFOS (Associazione Italiana Formatori ed Operatori della Sicurezza sul Lavoro). Following the amendments made to Legislative Decree 81/08 by Law 215/2021, the figure of the supervisor has in fact acquired even greater importance and plays a crucial role from an operational perspective, acting to correct non-compliant behavior by workers and providing the necessary safety instructions. The training course for the 'Qualified Supervisor' was designed from scratch by AiFOS and a working group of Elettricità Futura associates, including EP Produzione, with the systemic objective of enhancing the skills of electrical contractors.

The course is designed both for supervisors internal to the electricity companies and those employed by contracted companies. It involves **multidisciplinary training**, in terms of both technical and psychosocial

INITIATIVES	2022	2021	2020
Safety Hour (n.)	29	19	20
Safety Walk & Talk (n.)	654	709	204

skills, for a total of 32 hours, spread over 4 days, at the various locations of Elettricità Futura's affiliates. In 2022, after the course was developed, two training sessions were held, the results of which were promising. Further sessions will be held in 2023 onwards.

With the aim of spreading the culture of safety among young people and offering value to the local territories and communities that host its plants, **EP Produzione promotes various initiatives with schools and institutions.**

In 2022, the collaboration between the Tavazzano and Montanaso power station, the secondary school IIS "A. Volta" of Lodi and AiFOS is now in its 3rd consecutive year, as part of the civics education course. After the positive experiences of the School/Work Alternation projects and the "Caccia all'Insidia" (hunting for pitfalls) and "sVolta verso la Sicurezza" (aiming for safety) initiatives, the new training program **"in soccorso a tua Volta"** (to your rescue) was launched, dedicated to the approx. 100 students in their final year, diving deep into the subject of **first aid**. The program consisted of a theoretical and a practical session, during which the students, guided by AiFOS teachers and representatives of EP Produzione, carried out first aid measures. Each module was followed by an in-depth study on how alcohol and psychotropic substance abuse affects driving. At the end of the project, the students handed in a piece of coursework in the form of a video, summarizing their experiences and reflections on the topic. The best video was awarded during the closing event on May 4. A three-year program has been planned for 2023-25 that will cover fire emergency management and environmental protection, in addition to the usual health and safety topics.

Once again, this year EP Produzione celebrated the **World Day for Safety and Health at Work** promoted by the International Labour Organization (ILO) with the theme "Act together to build a positive safety and health culture". In order to involve employees and suppliers in a constructive dialog on prevention and

promotion of safety, the company organized a **series of events at its power plants and locations**. Events commenced on April 26 in Fiume Santo with the play "A chi esita" (To those who hesitate), performed by the **Rossolevante** theater company. The play recounts, through monologues, the stories of victims of the lack of a proper safety culture both at work and on the roads and in their private lives. The performance was open to the public, and featured guest speaker Giammarco Mereu, a former factory worker and theater actor, who recounted the accident he suffered in the workplace in 2006, arousing great interest from the audience.

Also as part of the Day, EP Produzione held a webinar at its Terni and Rome staff locations with an AiFOS nutritionist, who emphasized the **importance of a proper diet and physical activity** as vital elements for a healthy lifestyle. The Tavazzano plant also organized a Safety Hour on the role of the supervisor and on the new regulations on health and safety in the workplace. In cooperation with ISA Sicurezza, the Livorno Ferraris power plant held an experiential training workshop on the culture of interdependence in HSE and on the fundamental rules of EP Produzione.

As part of World Safety Day, Scandale power station organized a safety hour with ANMIL (Italian Association of Mutilated and Invalid Workers) during which two victims of accidents in the workplace told their stories and shared their emotions and feelings.

Close to the territory

Once again this year, the Tavazzano and Montanaso power station has confirmed its collaboration with the **Lodi Fire Brigade, a partnership which started a good ten years ago**. In November 2022, the power station opened its doors to 18 operators of the provincial S.A.F. (Caving Alpine River) unit for two days of training activities. Under the supervision of the RSPP (Prevention and Protection Service Manager) and the staff in charge of safety, operations were carried out to simulate rescue techniques inside the power plant,

including recovery maneuvers to rescue a person hanging from the fall protection system. The teams also engaged in abseiling, with stretcher and operator, to recover the person. The performing of these activities enabled us to further reinforce our relations and mutual knowledge with the Fire Brigade, pooling useful information in order to better manage any potentially critical situations at the plant.

Also in 2022, the Tavazzano and Montanaso power station contributed, together with other local businesses, to the successful accomplishment of the **municipal cardio-protection project, called "Kardhia"**, involving the installation of a new defibrillator in the center of Tavazzano, in Via San Giovanni Bosco. This life-saving device, placed outdoors, is therefore available to everyone, in the event of an emergency. The initiative, sponsored by the municipality of Tavazzano con Villavesco, aims to increase the health security of its citizens and also includes free seminars on first aid maneuvers.

Since 2019, the Fiume Santo power plant has cooperated with **AVIS Comunale di Sassari** (municipal blood donors association) to promote, through coordinated initiatives, the healthy habit of donating blood. In 2022, the power plant also contributed to the purchase of a new **electric wheelchair** for the AVIS branch in Usini, in the province of Sassari, which has been providing healthcare services for the community for years.

PROMOTING HEALTH

In 2021, Dr Sabatino De Sanctis was appointed Coordinating Physician of the Occupational Physicians and, in the course of the year he held several coordination meetings with the Occupational Physicians of the various sites. In 2022, the first face-to-face meeting was finally organized in order to review the various initiatives promoted and still in course in the field of healthcare. In recent years, EP Produzione has integrated its **health protocols** and run preventive diagnostic programs.

In addition, programs have been introduced to discourage smoking and raise awareness on health and wellness issues, such as **postural hygiene, healthy eating and exercise**, were implemented.

In the next phases, health promotion in the company will focus on cardio-vascular, osteo-articular and women-specific disease prevention as well as on the management of the COVID-19 pandemic.

The event is the first step in the EP Produzione process aimed at developing **common protocols and practices** to be used by all the Group's Occupational Physicians.

With regard to the pandemic, in 2022 EP Produzione renewed **COVID-19 insurance cover** for all employees, providing assistance and support to all employees requiring hospitalization after testing positive for the virus. This initiative falls under the insurance policies that EP Produzione took out for its own people, including occupational and non-occupational accident insurance policies, life insurance under the CCNL (National Collective Labor Agreement) for the Electricity Sector and insurance cover against the risk of losing self-sufficiency.

SAFETY ON WORKSITES

Plant maintenance, construction and demolition operations must be planned in advance and in every detail. Safety is a constant priority in all activities contracted out to third parties, given the many different types of hazards to which workers may be exposed, such as lifting, working at heights or in confined spaces, and electrical work.

In 2022, the total number of hours worked by third parties at all of the power plants and worksites put together were 1,656,143 hours, compared to 1,193,393 hours in 2021.

EP Produzione's strong approach to worksite safety revolves around the following key principles:

1. Dissemination of EP Produzione HSE approach

(e.g. the 4 Golden Rules, the #abbicura approach, Safety Hour, Communication and Involvement Plan, Accident Management Procedure).

2. Organization and expertise through EP Produzione staff.

3. Procedures and documents, such as: PSC - Piano di Sicurezza e Coordinamento in Cantiere (Worksite Safety and Coordination Plan) POA - Piano Operativo Ambientale (Environmental Operations Plan) and PMA - Piano di Monitoraggio Ambientale (Environmental Monitoring Plan); COVID protocols.

4. Continuous control system, through: daily checks performed by the EP Produzione team on site; Safety Walks & Talks provided by management, visitors and other workers; HSE audit plan.

Above and beyond fundamental and strict compliance with regulations, the worksites also implemented EP Produzione methods in 2022 in terms of health and safety, by developing and providing safety hours and safety walks. During the course of the year, reports concerning unsafe actions or conditions were in line with those of the previous year, but with a significant contribution from the worksites.

In March 2022, the worksite of the **new production unit, Tavazzano New**, started up an incentive program to encourage safe behavior on the worksite. The plan is part of the **"Diventiamo giganti della sicurezza"** (Let's become safety giants) workers' communication engagement plan, promoted **together with Ansaldo Energia**, to sustain positive safety dynamics on the worksite; workers who distinguish themselves for diligence and good safety behavior are periodically awarded for their efforts. At the inauguration of the program, there were 20 companies and a total

of around 200 people present, and the "Giant Book" containing the HSE site rules and values was distributed. The awards continued throughout the year, during which work was completely stopped in order to involve all of the workers in the safety aspects of the activities in course.

In the summer of 2022, with the aim of raising the awareness of the project team of the **new production unit, Ostiglia New**, on EP Produzione's culture and approach to work, the **"Safety @Ostiglia New"** workshop was held. The workshop was attended by the most important figures involved in the construction of the new production unit and in safety management, who had the opportunity to share their experiences from the worksite of the new production unit in Tavazzano and discuss safety aspects of the worksite that was soon to come into operation. In order to stimulate concrete commitment and a proactive attitude towards the conducting of activities in safe conditions, participants were also involved in discussion sessions and exchanges on the various topics and in experiential team activities. The workshop was conducted by Matteo Mazzarini, HSE Manager of EP Produzione and Sabatino De Sanctis of G2M, consultant and Coordinating Physician of the company.

Tavazzano e Montanaso power plant - project renderings



Ostiglia power plant - project renderings



Emissions into the atmosphere

[GRI 3-3] [GRI 305-7]

KEY FACTS AND FIGURES

In an environment characterized by increasingly stringent legislation and regulations, EP Produzione is constantly seeking new technical and organizational solutions to reduce the environmental impact of its activities, to the benefit of public health.

Atmospheric emissions are the most significant environmental aspect issue for thermal power plants. They are one of the main components affecting the **quality of the air**¹⁸ depending on the source used. From 1990 to 2020, the emission factor for national gross thermoelectric production decreased steadily, with values ranging from 709.1 g CO₂/kWh to 400.4 g CO₂/kWh¹⁹ to 400,4 g CO₂/kWh. This is mainly due to the increase in the proportion of natural gas used, and the greater efficiency of plants powered in this way.

The content of emissions from EP Produzione plants is made up of the typical products of natural gas combustion, and specifically:

- **CO₂** (carbon dioxide) - This is the primary product of fossil fuel combustion in addition to water vapor, and is directly dependent on the quantity and type of fuel burned. As such, **if the energy produced and fuel used remain the same, the only means of reducing CO₂ is to improve the efficiency of the plant.**
- **NO_x** (nitrous oxides) - These are combustion products that form following the oxidation of atmospheric nitrogen already present in the air.
- **CO** (carbon monoxide) - This is produced during transitional phases with sub-optimal combustion, but is at minimum level during normal operation: as such,

¹⁸ Air quality generally depends on the typical atmospheric and climatic conditions of the area, combined with the presence of sources of industrial pollution, vehicular traffic and heating plants.

¹⁹ ISPRA Report 363/22, (2022).

it is regarded as an indicator of the completion of the combustion process.

• **Water vapor** - Visible at low temperatures in the fall and winter months.

Emissions into the atmosphere are monitored constantly using equipment that is checked and calibrated periodically, in accordance with quality criteria provided for by the ISO 14181 standard. The external laboratories designated to conduct controls are accredited by Accredia to perform the required monitoring activities, and all the **emissions are in compliance with the limits imposed by the AIA (Integrated Environmental Authorization)**.

In order to understand atmospheric emissions data, production trends - in terms of operating speeds and the continuity of the production units - have to be considered.

Higher speeds and greater continuity can lead to higher efficiency, but an increase in total CO emissions is evident due to transitory periods characterized by market-related switching on and off.

The trend in **mass emissions** is closely linked to the general production data (indeed, emissions increase with the increase in energy produced) and the efficiency of the transformation process.

Specific emissions, on the other hand, are emissions generated in proportion to the net energy produced and, as such, are a direct indicator of the efficiency of the processes in question.

MASS AND SPECIFIC EMISSIONS

Mass and specific emissions (t)	2022	2021	2020	Δ 2022-2020
Net energy produced (GWh)	14,099.00	16,195.30	14,282.30	-1%
CO ₂	7,160,443	7,615,876.00	7,389,409.00	-3%
% originating from coal	39%	28%	37%	
NO _x	2,659.10	3,181.00	3,270.30	-19%
CO	1,853.20	1,531.80	1,836.30	1%
SO ₂ (Fiume Santo)	982.90	1,046.80	1,564.80	-37%
Dust (Fiume Santo)	57.80	93.30	88.70	-35%

Specific emissions (t/GWh)	2022	2021	2020	Δ 2022-2020
CO ₂	507.92	470.25	517.38	-2%
NO _x	0.19	0.20	0.23	-18%
CO	0.13	0.09	0.13	2%
SO ₂ (Fiume Santo)	0.1	0.06	0.11	-36%
Dust (Fiume Santo)	0.0	0.01	0.01	-34%

EMISSIONS INTO THE ATMOSPHERE

MASS AND SPECIFIC EMISSIONS – FOCUS ON COAL TECHNOLOGY

Mass emissions (t)	2022	2021	2020	Δ 2022-2020
Net energy produced (GWh)	2,842.00	2,369.00	3,050.00	-7%
CO ₂	2,943,816.00	2,407,477.00	3,086,137.00	-5%
NO _x	1,198.00	1,471.00	1,937.00	-38%
CO	95.80	69.70	100.70	-5%
SO ₂	982.90	1,046.80	1,564.80	-37%
Dust	62.70	93.30	88.70	-29%

Specific emissions (t/GWh)	2022	2021	2020	Δ 2022-2020
CO ₂	1,031.53	1,017.75	1,011.85	2%
NO _x	0.42	0.62	0.64	-34%
CO	0.03	0.03	0.03	2%
SO ₂	0.35	0.44	0.51	-33%
Dust	0.02	0.04	0.03	-24%

In 2022, there was a decrease in **net energy production of 13%** (from 16,195 to 14,099 GWh) compared to the year before. Looking at the trend over the three-year period, it can be seen that, for the same net energy produced, both mass emissions and specific emissions of NO_x and CO₂ decreased: a result that testifies to the success of the efficiency and environmental improvement measures promoted over the years and a gradual reduction in emissions from coal-fired thermoelectric production. In relation to the Fiume Santo power plant, this also applies to both mass and specific emissions of dust and SO₂, both of which have dropped very significantly.

In 2022, market demands for power plant operation brought about a slight increase in CO emissions due to external environmental factors (e.g. drought) which impacted the operating capacity of certain production units. But CO emissions did not change greatly over the three-year period.

NO_x emissions, on the other hand, are an indicator of the normal operation of the machines: the fact that

they have decreased by 19% in 2020-2022 against a reduced drop in overall energy production confirms that the state-of-the-art technologies introduced have fulfilled their promises, enabling the machines to perform better when they are running at a steady speed.

The amount of energy from coal increased by around 20% compared to 2021, due to higher market demands connected with the implications of the Russian-Ukrainian war. In particular, the Fiume Santo power plant made large investments to come into line with the new limits. More specifically, the initiatives for improvement involved the replacement of the boiler burners, increasing the volume of the catalyst inside the DeNO_x, optimizing the existing blowers on the DeNO_x, revamping the electrostatic precipitators, and other minor interventions on the DeSO_x. Benefits deriving from these investments take the form of improvements in the level of mass and specific emissions produced.

EVOLVING LEGISLATION

In 2010, the European Commission issued a directive, the Industrial Emissions Directive or IED (2010/75/EU), to support the reduction of emissions from industrial installations. The document, incorporating seven previous directives, came into force on January 6, 2011 and was adopted into national legislation by way of Italian Legislative Decree 46/2014.

The IED focuses on the **“BAT Conclusions”**, i.e. the best available technologies based on the performances they can guarantee, establishing a range of levels of permissible emissions for each of the sectors examined. The Directive enables the competent authority to set emission limits (and, as such, to establish the AIA conditions for plants) with reference to the BAT Conclusions. Additionally, the Directive requires the

competent authority to review the authorization conditions and amend them, if necessary, every four years after the publication of the BAT Conclusions in the Official Journal. On July 31, 2017 (implementing decision EU/2017/1442), the European Commission defined the best available techniques, with which all plants producing energy from conventional sources had to come into line within August 2021²⁰.

The EP Produzione gas-fired power plants comply with the BAT Conclusions. Proceedings are being finalized for Tavazzano and Montanaso and Trapani. The BAT conclusions and the new authorizations have, therefore, forced the EP Produzione power plants to adapt to increasingly stringent emission limits, as shown in the table below.

POWER PLANT	PARAMETER	PREVIOUS AIA [mg/Nm ³]	AIA IN FORCE [mg/Nm ³]
Fiume Santo	SO ₂	200 (average over 48 h)	130 daily average - 120 annual average
	NO _x	200 (average over 48 h)	150 daily average - 140 annual average
	CO	50 (average over 48 h)	40 annual average
Ostiglia	Dust	20 (average over 48 h)	14 daily average - 10 annual average
	NO _x	30 (average per hour)	28 daily average - 27 annual average
	CO	30 (average per hour)	25 daily average
Livorno Ferraris	NO _x	30 (average per hour)	30 average per hour
	CO	30 (average per hour)	30 average per hour
Tavazzano and Montanaso*	NO _x	30 (average per hour)	30 average per hour
			29 daily average
			27 annual average
	CO	30 (average per hour)	30 average per hour
			25 daily average 20 annual average
Trapani	NO _x	50 (average per month)	45 daily average (since 2023)
			40 annual average
	CO	100	30 daily average

*The limits indicated only apply to Units 5 and 6. The new unit will be subject to different limits.

²⁰ On January 27, 2021, the TAR (regional administrative court) of the European Union repealed the implementing decision (EU) 2017/1442 concerning the BAT Conclusions; despite this, the effects of Directive 2010/75/EU remain in place for a further 12 months, pending updates to the regulatory framework to replace it.

The Capacity Market
Energy Management
The Energy Management organizational unit
The peaker power plant in Trapani
Asset integrity
Projects for the new capacities
The electricity system of the future
Hydrogen

Reliability and innovation

[GRI 3-3]

THE CAPACITY MARKET

By way of the Decree published on June 28, 2019 and signed by the Italian Ministry for Economic Development (MiSE), Italy adopted the guidelines issued by Europe and put measures in place for the introduction of the Capacity Market in order to guarantee the adequacy of the national electricity system and ensure a sustainable energy transition, including from an economic standpoint. **Mechanisms such as the Capacity Market provide a stimulus to invest in upgrading the plants, and to implement the new programmable capacity required to enable the phase-out of coal-fired plants, as it offers a guarantee of purchase with regard to programmable capacities and, as such, protects the stability of the national electricity grid.**

The goal of the market tool in question is to preserve the availability of resources, including under the most critical conditions for the system, e.g. in a situation of

high demand and low availability of production from non programmable renewable sources. In that scenario, the Capacity Market serves as insurance to protect the system both in terms of adequacy (ensuring the availability of capacity to meet peak demand) and by limiting the potential for a price spike in situations of significant scarcity of resources (imposing a ceiling on the price offered by the capacity contracted).

In economic terms, the Capacity Market allows for a reduction of the effects of an energy market collapse, seeking to address the poor profitability and **price volatility**, in particular in relation to thermoelectric plants with increasingly non-continuous operation, which is nevertheless essential given the non-programmability of the majority of renewable energy plants.

Indeed, the Capacity Market makes it possible to provide long-term price indications and therefore support investments in the renewal and improve-

ment of efficiency of the installed generation capacity, according to the adequacy requirements defined by Terna, ARERA and the Ministry for Ecological Transition.

In February 2022, Terna S.p.A. organized a Market Auction for the 2024 delivery year. During the auction, the following were assigned: one-year contracts for existing capacity and 15-year contracts for new capacity. As a result of the auction EP Produzione was awarded:

- **755 MW** of CDP (Capacità Disponibile in Probabilità - likely available capacity) for new authorized capacity. Thanks to this important result, the Group was able to commence the Ostiglia power plant renovation project.
- **1.800 MW** of CDP for existing capacity in the area of the North.
- **400 MW** of CDP on the Northern Border.
- **588 MW** of CDP for 100% of Scandale (50/50 with A2A).

ENERGY MANAGEMENT

Price trends

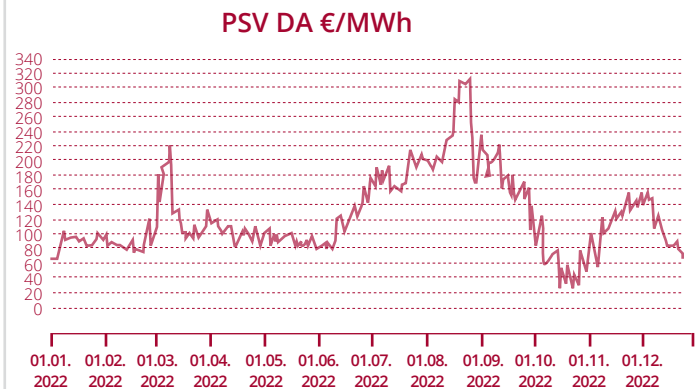
In 2022, the commodities market was strongly impacted by the Russian-Ukrainian war, and hence by the reduction of gas and oil supplies, an event that led to strong price volatility in the energy sector, particularly with bullish trends.

In the first half of the year, the price of gas varied between €80/MWht and €100/MWht, but in March, at the beginning of the war, due to fears of a further reduction in gas from Russia, the price rose to €220/MWht, only to settle again at €100/MWht.

In the second half of the year, the price rose continuously due to the need for all European countries to stock up on gas. Then the final cut in supplies through

the Nord Stream pipeline in September made gas prices soar to over €300/MWht, only to drop in October to €30/MWht (the lowest price since June 2021), thanks to gas storage at peak levels, large quantities of gas from Africa, and temperatures well above the seasonal average.

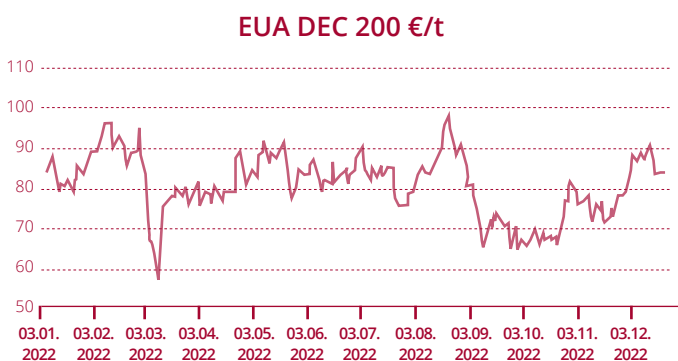
Gas price at the Virtual Trading Point (VTP)



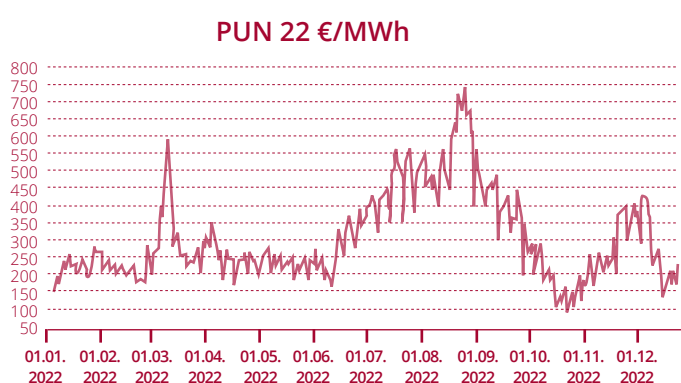
The prices of emission certificates in 2022 were characterized by high volatility and a growing correlation with the equity markets; while there was no correlation with the gas markets at the height of international tension (March and September 2022). After soaring almost to €100/t at the beginning of the year, the price immediately plummeted when the war broke out, falling to under €60/t; the price then rose again almost to €100/t in August, at the same time as the reduction in the supply of primary auctions and increasing demand from coal-fired power plants.

In September, financial levers led to a rapid fall in the market to €65/t, while in December, the need to meet the 2022 obligations led to a new rise in the market which closed around €90/t.

Price of European Union Allowances (EUA)²¹



PUN (single national price of electrical energy)



In 2022, the PUN (Italy's single national price) reached its all-time high of €303.95/MW (average value for 2022), recording an increase of €125.46/MWh compared to its 2021 value. The dynamics of the PUN are closely correlated to those of gas, but its growth in 2022 was corroborated by a hefty reduction in domestic supply due to both drought and a strong heat wave.

In fact, the reduction in hydroelectric production in the North was worsened by the unavailability of the thermoelectric generation park, due to the lack of water for cooling the production cycle and also to the high temperature of the water.

EP Produzione's thermoelectric power plants were also affected by the combined effect of drought and high temperatures, and this particularly applied to the Muzza Canal for the Tavazzano power plant and the River Po for the Ostiglia power plant, as well as high sea water temperatures for the Fiume Santo power plant.

In order to **offer the energy of EP Produzione's power plants on the market every day at their best**, continuous optimization of the plants' generation portfolio is required.

THE ENERGY MANAGEMENT ORGANIZATIONAL UNIT

In order to **offer the energy of EP Produzione's power plants on the market every day at their best**, continuous optimization of the plants' generation portfolio is required. This is taken care of by the Energy Management organizational unit, which optimizes the plant portfolio on all market channels, forward, spot and real-time, and is divided into 4 areas:

1) Portfolio Management & Origination, which manages the hedging activities of EP Produzione's portfolio for all the commodities characteristic of coal- and gas-fired plants. It does so primarily through EP Commodities, the EPH Group's trading company, but also through bilateral trading with counterparties or by accessing OTC (Over The Counter) platforms. Additionally, in Origination, the area researches and develops energy products and services related to new EP Pro-

²¹ Ministry for Economic Development: "The Directive 2003/87/EC (as last amended by EU Directive 2018/410) stipulates that since January 1, 2005, large emitters in the European Union cannot operate without a greenhouse gas emissions permit. Each authorized plant must offset its emissions annually with allowances (European Union Allowances - EUAs, equivalent to 1 ton CO₂eq) that can be bought and sold by the individual operators concerned. Plants can buy allowances in European public auctions or receive them free of charge. Alternatively, they can get them on the market."

duzione projects and the negotiation of PPA contracts.

2) Short Term Optimization, focused on optimizing the generation portfolio over a short-term time horizon by analyzing market scenarios and defining sales strategies down to the spot, day-ahead and intraday market, organized by the energy market operator, Gestore dei Mercati Energetici (GME).

3) Mid-Term Optimization, deals with the development and management of a meticulous market analysis simulating the expected developments and behavior of EP Produzione's industrial portfolio over a medium- to long-term time horizon. It also defines the expected generation margin for the purpose of drawing up the company's business plan. It develops the strategy for participation in the Capacity Market auctions and backs up the EPH group in market analyses and the calculation of expected margins for M&A operations. Within the scope of Contract Management, the area maintains relations with trading counterparties and stipulates contracts for the supplying of gas and the purchasing of electrical auxiliaries for the generation portfolio.

4) Bidding & Real Time Management, focuses on defining strategies in the intraday markets and ancillary services, up to balancing markets. It manages the sending of sale and purchase offers on all market ses-

sions controlled by the GME. It is responsible for the retail dispatching of the production plants in real time and interfaces directly with the generation plants and Terna.

AVAILABILITY OF THE POWER PLANTS

EP Produzione has a key role as a producer of energy from programmable sources: ensuring that demand is met and serving as a back-up for renewable energy that, by its nature, is subject to fluctuations in terms of availability of the sources used to produce it, such as wind, sun or water resources.

The requirements of the electricity system have changed, specifically as a result of the progressive rolling out of renewable energy forms. **Traditional plants**, once responsible for producing energy on a constant basis, **are now started up to overcome the non-continuity of the alternative production methods**.

Constant startups and shutdowns expose the power plants to cyclical stresses that impact their useful life. As such, with a view to the optimal management of all assets and production infrastructures, increasingly advanced diagnostic tools are required, combined with skills that allow a predictive and preventive approach to be taken to their maintenance. In this context, investments for technical **adjustments and improvements of the power plants in opera-**

INDICATOR	2022	2021	2020
Total net production (GWh)	14,100	16,200	14,300
Availability index (%)	70	82	83
Programmed unavailability index (%)	8	11	7
Accidental unavailability index (%)	11	7	8
Index of unavailability due to External Causes (%)	11	1	2
Average hours of operation (h)	4,592	5,369	5,244
Startups (no.)	732	744	640
Utilization factor ¹ (%)	42	48	43
Load factor ² (%)	80	78	71

¹ The utilization factor indicates how much the plant produced compared to the maximum energy that could be produced in one year.

² The load factor measures how much the plant produced compared to how much could be produced in the hours in which it was actually

tion are of crucial importance, and cost approx. €56 million from 2020 to 2022.

In 2022, the accidental unavailability index increased to 11%, mainly due to anomalies affecting two components at the Livorno Ferraris power plant. Additionally, there was a significant rise in unavailability due to external causes, including the high temperature of seawater that impacted production at the Fiume Santo power plant and the scarcity of watercourses for the Tavazzano and Ostiglia power plants, which negatively affected availability and productivity.

THE PEAKER POWER PLANT IN TRAPANI

Peakers are turbogas plants with the features of being flexible and able to be started up quickly. These power plants are used to **balance the intermittent production of renewable resources**, such as solar energy and wind power, and ensure that the electricity grid is secure and flexible, even in the absence of wind or sun. In particular, peakers are typically used to cover peak periods of electricity demand, switching on and off rapidly for a few hours at a time. The Trapani power plant is an example of a turbogas plant used as a peaker, consisting of two open-cycle turbogas plants with a net installed capacity of 213 MW.

In the Region of Sicily, the electricity system is powered by a thermoelectric generation park mainly concentrated in the eastern and central area of the island, and by numerous renewable energy plants, mainly wind farms.

Peakers such as the Trapani power plant are important for balancing supply and demand of electricity in the Sicilian grid, especially during peaks in demand for electricity. The distribution of the generation facilities makes the Sicilian system extremely unbalanced so that it has also become an obstacle to the development of new renewable energy generation, particularly from wind power²².

For these reasons, **the Trapani power plant is considered essential to the safe and secure management of the western area of Sicily** and plays a crucial role in the process of repowering the electricity grid managed by Terna in the event of blackouts.

ASSET INTEGRITY

At EP Produzione, managing assets means prioritizing the protection of people, the environment, and the works that may be affected by the activity. To that end, in recent years, EP Produzione has adopted an **Asset Integrity** management procedure that identifies the tools required to develop:

- the “Condition Index” assessment methodology and its criteria;
- the qualitative and quantitative risk assessment methodology;
- standardized processes and metrics that provide objective, reproducible and consistent assessments;
- tools to standardize results.

In 2020, the management method was tested at the Fiume Santo power plant, with results that made it possible to develop the necessary risk mitigation measures. Subsequently, on the basis of the results obtained during the pilot test, **a company procedure** was developed that minutely defines assessment methodology, time frames, and responsibilities of the process in fine detail. The aim of the guideline is to improve the integrity of the assets and manage plant risks, including seismic risks, with particular attention to civil engineering structures through operational procedures and assessment checklists.

During 2022, in cooperation with AiFOS, EP Produzione organized direct training for employees and external professionals at each production site with the aim of setting up a **“team of evaluators”** to monitor the structural integrity of the infrastructure at the power plants.

²² Terna, Piano di sviluppo 2021.

Approx. 20 staff members have been trained in the different power plants and will be able to carry out integrity assessments and draw up an Asset Integrity plan, the actions of which will be included in the multi-year business plan.

Seismic risk

Seismic risk assessment is part of the corporate process of Asset Integrity and involves the use of visual and instrumental inspections to improve the quality of the data collected. EP Produzione runs annual seismic vulnerability assessments of its power plants, especially those located in risk zones.

At the **Scandale power plant**, the seismic vulnerability study phase has been completed on all the buildings on the site, and seismic risk adaptation of the structures has now been started and is included in the Risk Assessment Document and Internal Emergency Plans.

During the year, the **Tavazzano and Montanaso power plant** completed a first-level check on the power plant's seven bridges, using drones and control systems, followed by a second-level analysis with more targeted checks to assess the stability of the bridges.

Securing the hillside beside the power station

In 2022, the **Scandale power plant** started working with UNICAL, the University of Cosenza, on a project to secure a hill in front of the power plant that had been subjected to some minor landslides in the past, following heavy rain. The goal of the project is to consolidate the hill with geological interventions, resolving the risk of landslides while preserving the surrounding landscape intact.

PROJECTS FOR THE NEW CAPACITIES

The new Tavazzano and Montanaso unit

Throughout 2022, work continued on the construction of the new production unit at the Tavazzano and Montanaso power plant. To date, important phases of the works have been completed, including the closure of the turbogas, the positioning of the generator rotor and stator on the foundation, and the **assembling of the HRSG** (Heat Recovery Steam Generator) **boiler**, with the installation of the mechanical components and the first piping module. Ancillary works have also been carried out regarding the connections to the gas and high-voltage network. As of December, progress on the project reached 78% completion, with the engineering and materials procurement phases almost complete.

The total electrical output of the Tavazzano and Montanaso power plant will rise from 1,170 MW to 1,970 MW. With the commissioning of the new unit, expected within 2024, the **operation of the 380 MW Unit 6 will also be limited to a maximum of 3,000 hours per year**, which means that in terms of emissions Unit 6 will be comparable to a 130 MW unit. The total investment for the project is approximately **€380 million**.

The use of state-of-the-art technology will reduce both mass and specific NO_x emissions by more than 50% due to the more stringent limits and better environmental performance of the new combined-cycle unit. The Integrated Environmental Authorization that permitted the operation of the new Group imposes total mass emissions of the power plant (i.e., Module 5, Module 6 and new section) at not more than a total of 635 tons/year, compared to the previous limit of 1,497 tons/year for Modules 5 and 6. To meet these requirements and comply with the European Union's more stringent environmental standards (BAT), it may be necessary to install Selective Catalytic Reduction (SCR) systems, not only on the new unit, but also on Module 5.

Strengths

- **The project is in line with the objectives of Italy's Integrated National Energy and Climate Plan in terms of decarbonization and the security of the national electricity system** through the creation of new efficient, flexible, low-emission production capacity, instrumental for the development of renewables and progressive decarbonization.
- The new combined cycle will be installed **in replacement of the pre-existing Unit 8**. When the new unit enters into operation, the operating hours of the pre-existing Unit 6 will be reduced (max 3,000 hours/year).
- **Very high-performance, with a net efficiency of 62%.**
- **Reduction of both mass and specific emissions into the atmosphere** of over 50% in terms of NO_x, thanks to the installation of state-of-the-art technology, in line with the most stringent limits set by the European Community (BAT).
- **Hydrogen:** Ansaldo GT36 gas turbine– already fitted out for a future with hydrogen mix combustion.
- **Compact dimensions:** complete re-use of already existing areas and infrastructure (methane gas line, HV electrical station and cooling systems) so no additional land is needed.
- **Fuel farm:** new volumes compensated by the demolition of 50,000 m³-tanks no longer in use, downstream of the entering into operation of the new CCGT.
- **Spin-offs and opportunities for the local community**, in terms of both employment and development and improvement of the production sector's technical skills.
- No increase in thermal impact on the waters of the **Muzza Canal**: the new unit will use the canal waters for cooling and there will be no change in thermal impact compared to that already authorized.
- The new combined cycle unit will be built so as not to alter the **acoustic impact** on receptors, thereby ensuring compliance with already existing acoustic zoning norms.

- **Impact on the landscape:** visual mitigation measures, including the use of colors and plant barriers made up of native species, embankments with excavated soil and planting of trees and bushes. By way of compensation, 10,000 trees will be provided to the Adda Sud Park.

The **Single Authorization** for the construction of the new production unit was issued by the Ministry of Ecological Transition in August 2021. Work started on September 1, 2021 and is expected to be completed by the first half of 2024. Ansaldo Energia S.p.A. was chosen as EPC contractor for the complete construction of the unit.

The project envisages intense involvement of the local community both as regards the procurement of raw materials, such as concrete and steel, and the use of labor. As of December 2022, more than **1,400** different people had entered the site, including both Ansaldo Energia's workers and those of subcontracted companies. From January 2021 to the end of December 2022, **more than 670,000 hours were worked on the site of the new unit**. No accidents were recorded from the commencement of the works on the site in 2021 or during 2022.

The new Ostiglia unit

The development project at the Ostiglia power plant provides for the construction of a new combined-cycle unit, which means that the same amount of energy can be produced with a notable reduction in fuel consumption and emissions. The installation of state-of-the-art technologies (H class gas turbine and the use of SCR systems to reduce NO_x) will bring about a drop in specific emissions in line with the most stringent national and European guidelines; NO_x emissions in particular will fall to less than 10 mg/Nm³.

The project will deliver benefits to the local community through the creation of jobs, adding 12-14 technicians to the current number of employees, which is around 60.

It will also further the economic development of the area, and provide opportunities for the improvement of technical skills in the production sector.

Preliminary preparations for setting up the worksite commenced in August 2022. The works are expected to take approx. 3 years to complete.

Strengths

- **The project is in line with the objectives of Italy's Integrated National Energy and Climate Plan in terms of decarbonization and the security of the national electricity system:** new production capacities that are efficient, flexible and with lower emissions, functional to the further development of renewables and progressive decarbonization.
- The project envisages the **placement of Unit 1 in "cold reserve"** (it will only be used as a replacement for one of the other units in the event of maintenance or failure of the latter) and the installation of a **Selective Catalytic Reduction (SCR) system of the NO_x** inside the heat recovery steam generators in the already existing sections 1, 2 and 3.
- The new Combined Cycle will be built **outside an area of the existing power plant originally intended for a Heavy Fuel Oil (HFO) tank farm**, now demolished, and approximately 1 km away from the existing thermoelectric units, so as to remove part of the power plant's electricity production from the town of Ostiglia. **Approximately half of the area that will be freed up** through the demolition of the Heavy Fuel Oil tanks currently existing on the production site will also be made available to municipal administration for uses to be agreed upon.
- **Very high-performance, with an efficiency of over 62%.**
- **Reduction** of both mass and specific **emissions** of CO and NO_x into the **atmosphere**, thanks to the installation of state-of-the-art technology, in line with the most stringent limits set by the European Community (BAT).
- Thanks to the technology used (SCR and H class gas turbine), even stricter limits can be met: NO_x from 30 mg/ Nm³ to 10 mg/Nm³ in the new Unit 5, from 30mg/

Nm³ to 15 mg/ Nm³ in existing Units 1, 2 and 3; CO 20 mg/Nm³; NH₃ 5 mg/Nm³.

- **Use of Hydrogen:** the Siemens technology gas turbine selected, type SGT5-9000HL, is already fitted out for use in the future with hydrogen mix combustion.
- **Compact dimensions:** the area of interest is that further away from the town and no new land will be occupied.
- **Spin-offs and opportunities for the local community:** employment, development opportunities and improvement of the production sector's technical skills.
- **Reduction in the thermal impact** on the River Po, due to the fact that the plant will be air-cooled. Consequently, the plant will be less subject to operational constraints deriving from the low water level of the River Po.
- The new combined cycle unit will be built so as not to alter the **acoustic impact** on receptors, thereby ensuring compliance with already existing acoustic zoning norms.
- **The staff of the power plant will be increased:** about 12-14 technicians will be added to the 60 currently employed. Additional resources from third-party companies are expected to be employed.
- Redevelopment of the **Borgo San Giovanni** area with the demolition of the Fuel Oil tanks, to make space for the construction of the new unit.
- **Environmental compensation works:** naturalistic restoration is planned, consisting of an afforestation project with native species of bushes and trees, covering an area of approx.10 hectares in the SPA "IT20B0501 Viadana, Portiolo San Benedetto Po and Ostiglia".

THE ELECTRICITY SYSTEM OF THE FUTURE

Italy has declared its energy transition targets in its national energy plan, striving for higher integration of electricity generation from renewable sources **(55% renewable share in the electricity sector by 2030)**. To this end, renewable installed capacity is expected to increase by approx. 40 GW by 2030, with the parallel phase-out of coal-fired electricity generation by 2025²³. The national energy plan will be updated in the course of 2023, with even more ambitious decarbonization objectives, consistent with the European target set out in the Fit for 55 package of a 65% renewable share in the electricity sector, with around 65 GW of new renewable capacity, or the even higher REPowerEU target of up to 85 GW of new renewable capacity.

The electricity system needs to be modernized in order to meet the challenges arising from the increasing demand for electrical energy and its management, including the need to incorporate a greater share of energy from renewable sources.

Due to their intermittency and unpredictability, the use of non-programmable renewable energy sources poses major challenges for the safe and efficient operation of the electricity system. In order to level out the intermittency of renewable energy production and promote its utilization, without wasting any overproduction, particularly at certain times of the day, it has to be coupled with systems for **storing electricity**, such as hydroelectric reservoirs and batteries.

Batteries, the technical name of which is Battery Energy Storage Systems (**BESS**), are essential in this context, to improve the resilience of the grids and the continuity of the electricity supply. Thanks to these BESS, energy can be efficiently stored at times when production from renewable energy sources is greater than demand, then supplied to the grid when needed. This enables investors and stakeholders to **limit wa-**

ste and generate more revenue, while reducing costs for consumers.²⁴

To date, the biggest concern about the widespread use of electrochemical storage is its cost, which is still high, and the degradation factors which can affect its performance over time. In fact, while some electrochemical storage may already be competitive for some applications, a substantial reduction in costs and greater awareness of the performance of the various technologies available are necessary if the use of storage systems in the electricity grid is to increase. Unlike other generating assets, **electrochemical accumulators are characterized by a limited useful life**, connected with the number of cycles or drop in performance due to the use of the battery itself; for this reason, their operation should be optimized during their useful life, evaluating the best trade-off between revenue and ageing.

In this perspective, EP Produzione has promoted a series of projects based on this new technology:

- **Fiume Santo Large BESS** consists of an installation of 100 MW x 2-hour modules, equal to 200 MWh of energy produced. The project is waiting for a formal action from the Region; this is required in order to obtain the Single Authorization decree (AU - Autorizzazione Unica). The impacted area measures 3.2 hectares and is located on the site of the old fuel oil units. The construction works are expected to take 16 months from their commencement, and the project also includes a mitigation measure consisting of a shield made of vegetation to hide the side of the power plant overlooking the sea.

- **Fiume Santo Small BESS**: this is a second installation in Fiume Santo that consists of modules with a total power of approx. 10 MW for 8 hours, with an overall capacity of 80 MWh. For this project, authorization

²³ Ministry for Economic Development, Piano Nazionale Integrato per l'Energia e il Clima (PNIEC) (Integrated National Energy and Climate Plan (INECP)), 2019.

²⁴ MarshMcLennan, Recharging the transition: the role of battery energy storage systems, 2022; DNV, New Storage Capacity: Key Element for the Energy Transition in Italy, 2021.

is at a local level, and all the local opinions are in their final stages.

- **Centro Energie Ferrara:** the installation should occupy the area of Ferrara's demolished power plant. Its capacity is 70 MW for up to 4 hours (280 MWh). The authorization process is currently in its final stages, after obtaining the Technical Connection Solution from the Transmission System Operator (TSO).

- **Trapani BESS** is a project within the area of the Trapani open-cycle power plant. Its capacity is 100 MW x 4 hours (400 MWh). The authorization process is currently underway. In particular, the procedure for connection to the grid has been completed with the TSO. Construction of the power plant can only commence after the Single Authorization has been obtained and that is expected to take approx. 24 months.

The projects are in line with the INECP's goals, which envisage the development of **at least 6 GW of new centralized storage systems** and 4.5 GW of distributed storage, both electrochemical and hydroelectric, with this storage capacity growing to 30-40 GW in the long term (by 2050).

EP Produzione is evaluating the use of the **new Redox Flow battery technologies** for some of these projects. These batteries have a longer storage life than conventional lithium-ion batteries, plus the advantage of having a lower performance degradation that is practically unrelated to the number of charge and discharge cycles. What's more, they present a much lower fire risk.

HYDROGEN

The use of hydrogen crosses a **new frontier as regards the decarbonization of the energy sector** in the medium- to long-term, because it can resolve some of the major challenges presented by the transition. In particular, hydrogen could act as an energy carrier, so that excess energy production generated during peak production periods of renewable sources could be stored, and then used during periods of low production²⁵.

EP Produzione is one of **the partners of the green hydrogen Observatory**, promoted by the research and consulting company Agici together with Fichtner, a leading company in engineering and energy consulting services. Through a series of meetings, the Observatory conducted an investigation into the conditions required to make hydrogen an economically feasible decarbonization solution.

The results of the investigation were presented at a workshop in December 2022 and made it possible to identify **optimal production and consumption models, in the light of current trends and public funding possibilities**. In this way, an attempt was made to shed light on the enabling factors for the sustainability of green hydrogen as a means for decarbonization in the 'hard-to-abate' industries and the transport sector.

²⁵ World Economic Forum, What hydrogen and the global energy transition mean for industry in 2022 (2022).

Phase-out of coal and future of the site

[GRI 3-3]

FIUME SANTO ENERGY PARK



The energy transition is an unprecedented challenge: institutions and companies are being called upon to team up in order to find a new equilibrium between the environment, employment and the development of local production systems, today and tomorrow.

An equilibrium that will have to realistically balance technological and infrastructural development, market dynamics, geopolitical tensions and the evolution of the regulatory framework.

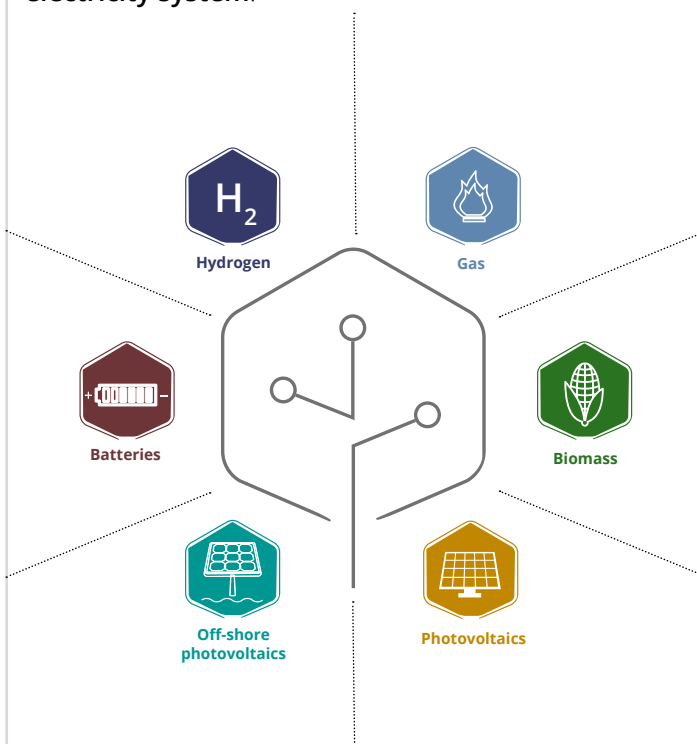
The stakes are high but they also offer the possibility to design a new world, together.

EP Produzione is at the forefront in giving the Fiume Santo industrial site a productive future, contributing to the search for tangible solutions for increasingly green and programmable energy.

A future that we envision as multi-fuel and multi-technological.

Sardinia presents a case in point of the complexity of the energy transition. Its geographic isolation greatly limited its development of energy infrastructures, preventing it from building a natural gas transport network and thus excluding it from the national methanization process.

Today, much of the electricity the island needs is generated by two coal-fired power plants operating under designated essential status, one of which is Fiume Santo. **Without the coal-fired power plants, we would be unable, at the present time, to meet the demands for energy and energy security of Sardinian households and businesses, and guarantee a minimum level of adequacy and security of the electricity system.**



The security of the island's energy system in the future electricity system will have to be guaranteed in every imaginable operating scenario, even under conditions of stress to the system, such as peak demand, absence of renewable energy production or failure of interconnections or transmission networks. A tough challenge, not without risk, that requires imagining solutions for a type of energy that is not only greener, but also - and above all - programmable.

The phase-out of coal presents a challenge and a special opportunity for Sardinia not only from an infrastructural and technological standpoint but also from an employment and social perspective, given the sector's territorial relevance in terms of personnel employed and value generated.

Fiume Santo Energy Park exemplifies the concrete attention paid to solutions either under authorization or study, that will allow the production site to continue contributing to the territory's energy security by supporting the attainment of the 2030 targets laid down in the Integrated National Energy and Climate Plan (INECP), also thanks to the gradual, well-balanced phase-out of coal.

In a single location, the Fiume Santo Energy Park will be able to condense an integrated and balanced energy mix which will contribute to furthering the energy transition thanks to a production site based on state-of-the-art power plants and technologies, with a horizon of use of at least 20-30 years.

• **Up to 1,000 MW of renewable and circular energy (photovoltaics, batteries, hydrogen, biomass) and low environmental impact (natural gas).**

The technological solutions proposed to produce electrical energy will be fully integrated with one another and will contribute in a concrete manner to meeting the expected requirements of Sardinia by activating virtuous cycles of circular economy.

• **A safe energy source for Sardinian households and businesses.**

For years now, the Fiume Santo industrial site has been an essential source of electricity for households and businesses in Sardinia. If developed further, the Fiume Santo Energy Park could continue to play this vital role, with even greater potential.

• **Up to €1 billion in investments.**

A unique energy project for the north of Sardinia. The scale of the investments that could be mobilized by this vision offers remarkable opportunities to boost Sardinia's economy.

• **Up to around 600 skilled jobs to accompany the implementation.**

The success of an ambitious project depends on the expertise and enthusiasm of the people working on it. Fiume Santo Energy Park intends to use a combination of cutting-edge technologies and, over the course of

PHASE-OUT OF COAL AND FUTURE OF THE SITE

approximately 3 years, it could create up to 600 new highly-skilled jobs, with positive spin-offs on the entire supply chain and impact on the production fabric involved in the project's implementation.

- **Up to 300 full-time staff to ensure the operation of the plants.**

The project will make it possible to safeguard vital jobs in the area. Depending on the final set-up of the energy park, the management of the various plants may require, according to estimates, the professional services of approx. 300 full-time employees (greater impact on employment due to the possible biomass project).

- **An integrated project to reach the targets of the INECP.**

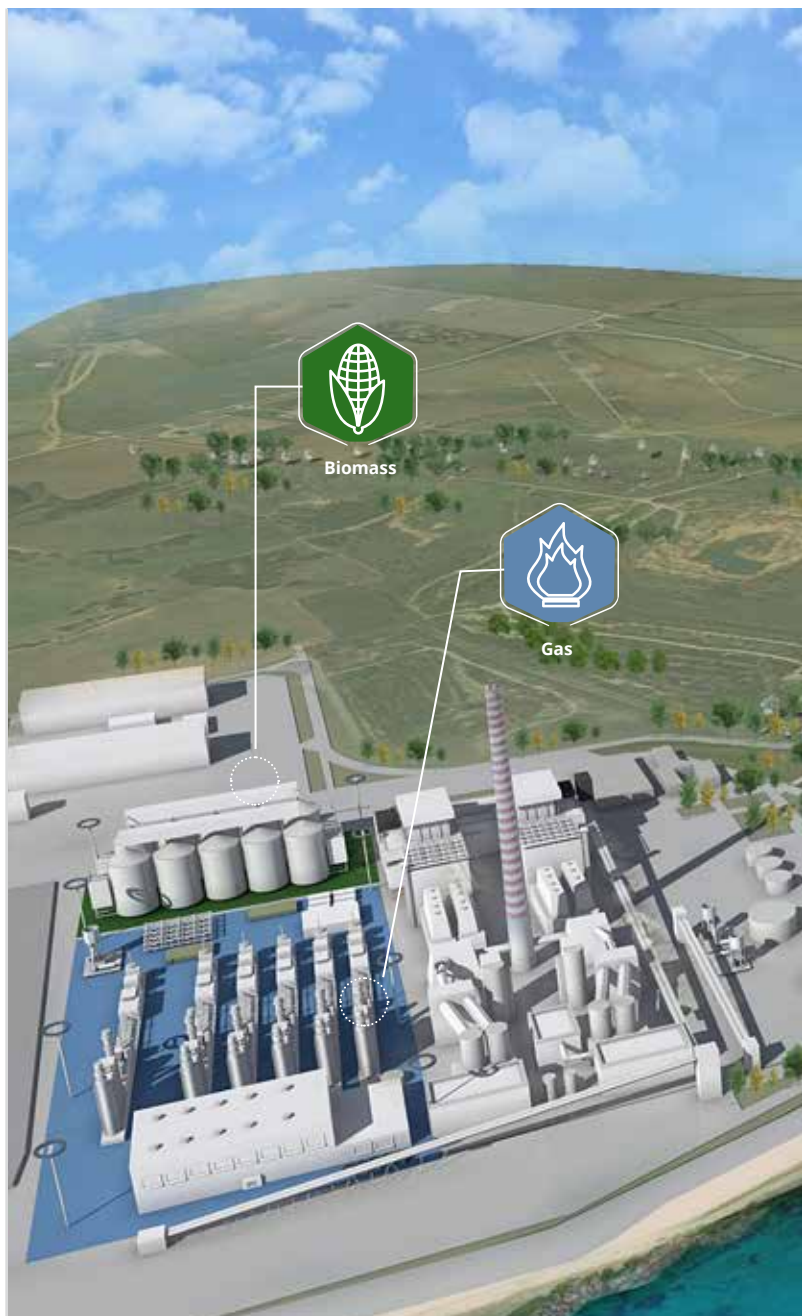
The proposed technological solutions will enable Sardinia to actively contribute to the attainment of national climate targets, promoting the development of integrated renewable energy capacity, increasing energy efficiency levels and reducing greenhouse gas emissions.

- **An innovative energy park at the cutting edge.**

Fiume Santo Energy Park will help preserve and cultivate the know-how built up over the years in the area. The integrated hub could enable the testing of new technologies and sustainable solutions: a veritable research incubator for the energy transition where expertise on the energy of the future can be accumulated.

- **A circular economy and upgrading of the local area.**

The concept for the new energy park envisages the complete redevelopment of the areas already occupied by the existing Fiume Santo industrial park, in order to provide Sardinia with state-of-the-art energy production solutions. No additional space will be required.





Watch the video

The supply chain
Close to the community
Partnerships with schools and universities

Generation of value for the local area

[GRI 3-3] [GRI 204-1]

THE SUPPLY CHAIN

In order to guarantee the total **reliability of its purchasing processes**, EP Produzione carefully assesses its suppliers on the basis of their strength in terms of reputation, respect for the values expressed in the Code of Ethics, price/quality ratio of the services offered, guarantees of assistance and technical-professional qualification, with a special focus on health and safety and the guarantee of equal opportunities.

With a view to ensuring utmost transparency and efficiency at the procurement stage, the Company undertakes to a separation of roles through different stages and to adopt documentable and objective criteria. In this way the information collected will be both traceable and comparable.

At the contract performance stage, EP Produzione

carries out careful **monitoring and assessment of supplier performance** directly involving the power plants or site offices. The company is, therefore, able to assess the effectiveness of the service provided and pinpoint potential areas for improvement.

Against a backdrop of crisis and price volatility, the Group ramped up its assessments of its suppliers' **economic and financial viability** during the 2022 qualification phase, with the aid of CERVED tests and detailed analyses of the available financial statement ratios.

In 2022, it had **1,181 active suppliers**. EP Produzione entered into contracts with them for over €133 million (excluding fuel costs). Over 43% of this value (37% in 2021) remained in the local area (approximately €59 million), thanks to collaborations with local businesses and professionals²⁶.

²⁶ In relation to each power plant, companies based in the following regions and provinces were regarded as local suppliers: Fiume Santo (Sardinia), Tavazzano and Montanaso (Lodi, Piacenza, Cremona, Milan, Pavia, Bergamo, Monza), Livorno Ferraris (Vercelli, Novara, Torino, Alessandria, Ivrea, Biella, Asti), Ostiglia (Mantua, Ferrara, Rovigo, Verona, Modena, Reggio Emilia), Trapani (Sicily).

DISTRIBUTION OF EXPENDITURE PER CATEGORY OF	2022	2021	2020
Manufacturers of primary machinery	35%	45%	44%
Maintenance	37%	33%	34%
Replacement parts	5%	6%	6%
Environmental services	6%	6%	5%
General services	9%	9%	8%
Chemicals	8%	2%	3%

EXPENDITURE INTENDED FOR LOCAL SUPPLIERS*	2022	2021	2020
Fiume Santo	43%	39%	45%
Livorno Ferraris	7%	6%	7%
Ostiglia	82%	62%	80%
Tavazzano and Montanaso	67%	82%	83%
Trapani	40%	23%	20%
Scandale	21%	11%	22%

*of total supply expenditure of each power plant

In 2022, the effects of the gas crisis impacted the Group's economic situation, as shown by the variation in the "chemicals" item, the percentage of which increased considerably over the three-year period. In 2022, **the percentage of expenditure and impact on local suppliers for the Ostiglia power plant was high, as it was for Tavazzano and Montanaso in 2021.** This percentage is closely related to the efficiency improvement projects of new worksites involving local enterprises from the area, generating direct and indirect impacts on the employment and social wellbeing of the communities surrounding the power plants.

Again in 2022, local suppliers were prioritized where possible, so as to support the local industries. In order to protect the employees of local companies, EP Produzione **includes a social clause in all its supply contracts**, which obliges any suppliers taking over to hire the workforce of the companies being replaced, especially when the company is the main customer.

In this way, all of the small businesses that grow alongside EP Produzione are protected, safeguarding work and employment continuity alike.

Calculating the costs of food, accommodation and transport related to the residing of workers from third-party companies in the area, estimated at over €9.3 million, €142 million of total revenue for related activities was generated in the territory. In 2022, almost 1,656,143 hours were worked by third-party companies, which is as though, on average every day, more than 821 people (full time equivalent) were added to EP Produzione's staff, practically more than doubling it. It should be noted that the estimate of total revenue for related activities has been rounded down, as does not include the revenue generated by those who visit the power plants each day and EP Produzione personnel on trips.

²⁷ The following assumptions are taken into account in the estimate of the revenue for related activities. For locals: no. 1 coffee (€1), no. 1 sandwich (€3), no. 1 small bottle of water (€1), €5 transport, totaling to €10 for each day visiting. For off-site visitors: 1 lunch (€10), 1 dinner (€30), 1 overnight stay (€50), €10 transport, totaling to €100 for each day visiting.

CLOSE TO THE COMMUNITY

EP Produzione contributes to growth and the creation of value in the communities where it operates, not only by providing jobs and prioritizing local suppliers, but also by returning value to these territories and strengthening the bond of mutual trust with them. This is why, also in 2022, the various power plants promoted a variety of initiatives in cooperation with local institutions and associations.

Energy and Sport

EP Produzione has been the **Gold Sponsor** of the **Dinamo Sassari** basketball club for the eighth year running, for the twelfth season of the 2022/2023 Serie A LBA national championships, and for the tenth year of the European Basketball Champions League.

The partnership strengthens the **“Energy and Sport Duo”** that is based on shared values and principles, such as support and belonging to one's home territory, but at the same time the spirit of renewal to cope with difficulties. This partnership also aims to encourage the resumption of sports activities, after the interruption caused by the pandemic, both at national and local levels, involving the youth and mini-basketball sectors.

Additionally, for about five years EP Produzione has been the sponsor of **FC Sassari Torres Femminile**, one of the most important women's football clubs in the country, which has won 7 championships and 8 Coppa Italia cup competition and is a physical embodiment of the overcoming of gender barriers in sport.

EP Produzione is a sponsor of the Rione San Saba district in the **“Atleticom We Run Rome”** road running event, sponsored by its partner Centro Ceco di Roma, which involves 22 traditional Roman “rioni” (districts). In addition to its sponsorship activities, EP Produzione took part in the event itself, with some of its colleagues from Rome joining in the 5 km non-competitive race.

The Fiume Santo power plant is a partner of the amateur sports association **Associazione Sportiva Dilettantistica Tennis Club Porto Torres**, which promotes the development and integration of young people through sport. This year, the power plant sponsored the padel tennis event **“A tutto Padel”**, in cooperation with the EduPè Social Cooperative, which also organized a sports inclusion project for young people with disabilities. The initiative adds to the Sardinian power plant's previous contributions to sport and inclusion, including the **World Taekwondo Demo Team Italian Tour 2022**, an event held in Alghero in June. The aim of the organizing company it is to give children in difficulty the opportunity to do sport.

As per previous years, the power plant of **Tavazzano and Montanaso** chose to sponsor the amateur sports association **Associazione Sportiva Dilettantistica Villatavazzano 1957**, which has been active in the area with its football team for over 50 years.

Supporting the local areas

In 2022, EP Produzione decided to offer concrete support to the population impacted by the Russian-Ukrainian war, by donating €30,000 to the **Italian Red Cross** and **Save the Children**. Employees had the opportunity to contribute to the cause by donating the equivalent of 1 or 2 hours of their own work, for a total of approx. €10,500 raised. EP Produzione supplemented the amount donated by employees, bringing the total donation to over €30,000.

As per 2019, in 2022 the **Ostiglia power plant** decided to support the choral association, Associazione di Promozione Sociale Corale G. Verdi, in the organization of a concert focused on the opera “Carmen” by George Bizet. The power plant made a donation to support the activities of the non-profit organization, Fondazione Giovanni Belfanti, in Ostiglia, which helps people in need by providing them with food, accommodation, clothing and assistance.

The **Scandale power plant** supported the UNITALSI parish group of Scandale - with which the power plant has been collaborating for several years - for the organization of a pilgrimage to Lourdes, the Associazione Musica X Sempre for the organization of the 39th edition of the "CantaScandale" singing competition, and the Parent Project association, which helps the families of children with muscular dystrophy and promotes scientific research on this disease. AIL, the Italian Association against leukemia, lymphoma and myeloma, received, as in previous years, support from the **Livorno Ferraris power plant**, which purchased their poinsettias and gave them to all their colleagues.

The **Fiume Santo power plant** supported the Sassari-based non-profit organization Casa della Fraterna Solidarietà, an association that works to support families in difficulty, with which the power plant has been collaborating for several years. This was followed by two more contributions to the ANTEAS (National Association of All Ages Active for Solidarity) Porto Torres voluntary association, which deals with prevention and nutrition education, home help for people who need long-term care, support in centers and homes for the elderly, and transport for the disabled; and the Associazione di Volontariato Alzheimer Sassari (Alzheimer's Association of Sassari), linked to Federazione Alzheimer Italia, which works to improve the lives of patients and their families.

PARTNERSHIPS WITH SCHOOLS AND UNIVERSITIES

For the fifth consecutive year, the **Fiume Santo** power plant has joined the "**La Nuova@Scuola**" training project, launched by the newspaper La Nuova Sardegna to strengthen the link between local companies and students. The 2022 edition of the project, which gives young people the chance to meet local businesses, involved **over 60 high schools on the island** through the organization of online meetings as a moment of discussion and information for young people on their future careers. This year, the head of the Fiume Santo power plant held a webinar dialog with over

400 students from 13 Sardinian high schools, explaining the role of the power plant, the challenges in the current energy system and the possible future of the power plant in view of the phase-out from coal.

Also as part of a partnership between the Sardinian power plant and local vocational training institutes, in March 2022, the Fiume Santo power plant invited four students and two teachers from the "**N. Pellegrini**" High School in **Sassari**. The aim of the visit was to provide a training opportunity in view of the international event (hackathon) on the management of water resources in the industrial, agricultural and food sectors, in which the students took part during EXPO 2022, at the Italian Pavilion, in Dubai. During the year, the power plant also welcomed students from the "Amicora" vocational training institute in Olbia, the Comprehensive Institute "San Donato" in Sassari and the Industrial Technical Institute "IIS A. Roth" in Alghero.

In 2022, the **Ostiglia** power plant commenced training in soft skills and career orientation, i.e. PCTO (Percorsi per le Competenze Trasversali e l'Orientamento) in the form of School/Work Alternation projects with 7 students from technical schools in Mantua and Ostiglia.

For the last six years, EP Produzione has been a partner of the **SAFE Master in "Energy Resources Management"**. The course offers graduates and professionals a high level of professional training in the field of research, production and management of energy resources in an environmentally sustainable context. Developed in cooperation with leading companies and institutions in the Energy and Environment sector, the course enables students to expand their knowledge and skills thanks to the participation of high-profile lecturers. For the 2023 edition, EP Produzione has decided to renew its cooperation with the Master's program, by offering a scholarship: an important opportunity for students who wish to specialize in the field of energy resources to access high quality training and work side by side with professionals in the sector.



The protection of biodiversity in the areas
surrounding the Livorno Ferraris power plant
The Muzza Canal
Transformation of industrial sites: the reclamation of
hazard centers and rehabilitation of areas
Waste management and circularity
Listening to and engaging with the territory

Protection of environment and biodiversity

[GRI 3-3] [GRI 303-1] [GRI 304-1] [GRI 304-2] [GRI 304-3] [GRI 306-1] [GRI 306-3]

THE PROTECTION OF BIODIVERSITY IN THE AREAS SURROUNDING THE LIVORNO FERRARIS POWER PLANT

The **Livorno Ferraris power plant** is located in the Vercelli rice-growing area, a delicate ecosystem that EP Produzione carefully protected when designing the plant. In particular, already in 2005, before construction works commenced on the plant, a major project was initiated, based on three lines of action:

- **biomonitoring activities**, aimed at monitoring flora, fauna and habitats with a special focus on the presence of the Site of Community Importance (SCI) IT1120007 "Palude di San Genuario";
- **mitigation works**, through the planting of woodlands as a filtering barrier around the perimeter of the power plant, in an area covering approx. 20 hectares;
- **compensation works**, through the reconversion of man-made areas (paddy fields) back to natural areas (prairies, forests and marshes), covering more than 24 hectares.

As far as mitigation works are concerned, the project provided for the **creation of prairies, woods and shrublands made up of 25 native species**, with over **34,000 plants** planted out. After about 15 years, the forest formations have become an important habitat for the local fauna and a connection point between the Trino Vercelli forest and the Regional Reserve and Special Area of Conservation known as the "Palude di San Genuario". The value of these woods in terms of fauna has also been recognized over the years by the province of Vercelli, which has set up a protection oasis in these areas, thereby guaranteeing to safeguard resident and transiting fauna.

With reference to compensation works, two interventions were carried out concerning the **reconversion** of areas previously used for agricultural purposes (paddy fields) **back to areas of natural evolution**. Both interventions are located adjacent to the "Palude di San Genuario" Regional Reserve, which is the largest biodiversity source area to be found locally. The forest

environment is well-established, with the **35 species** of native trees and shrubs planted out distributed in dense forest formations, scrub/glade complexes, prairies and shrublands, offering diversified resources for fauna. The total area of compensation is approx. 4 hectares and extends the east-west development of the reserve by about a third.

The power plant has also adopted a steam cooling system featuring a forced-air condenser and chimneys integrated in an **architectural design to reduce visual impact**. In 2022, after the implementation of the requirements of the new Integrated Environmental Authorization, **additional environmental monitoring plans** were introduced, including spot checks on the power plant's tanks, noise, water discharges and emissions.

THE MUZZA CANAL

The Tavazzano and Montanaso power plant has historically used water from the Muzza canal for cooling and has actively contributed to **maintenance and restoration works on the canal**, which is of great strategic importance for the entire Lodi area. The Muzza Canal is an age-old artificial waterway that stretches 39 km across the Lodi plain, drawing water from the River Adda and distributing it to the countryside. It is the largest irrigation canal in Lombardy, but it is also the oldest artificial canal in the whole of Europe and was one of the most important hydraulic engineering works contributing to the agricultural wealth of the area over the centuries.

In order to improve the efficiency of the power plant, work was carried out to upgrade the hydraulic infrastructure of the Muzza system, a project of systemic value supported by EP Produzione, in cooperation with the Consorzio Muzza Basso Lodigiano water purification consortium. The purpose of this project is to improve the hydraulic infrastructure of the Muzza Canal, through activities such as reinforcing the banks, dredging, hydraulic regulation and flood control. These works will benefit not only the Tavazzano and Montanaso power plant, but the entire farming communi-

ty of the area. The long drought that struck in 2022, one of the hottest years of all time in Europe, had a negative impact on the availability of water usable for cooling the plant, and this impacted the operation of the thermal power plant. The Muzza Canal was, in fact, managed by the Consorzio in order to optimize the various uses of the water, i.e. using it first in agriculture and then in the generation of electricity. Based on this experience, feasibility studies are underway to evaluate **alternative measures** that would enable the plant to reduce the **water withdrawals needed for steam cooling**. Such technological solutions for adapting to climate change would guarantee greater plant availability which would, in turn, safeguard the continuity of the national electricity grid.

TRANSFORMATION OF INDUSTRIAL SITES: THE RECLAMATION OF HAZARD CENTERS AND REHABILITATION OF AREAS

New capacity projects are one way of bringing about positive transformations of production sites. The old infrastructure is demolished, the areas are cleared to make room for new facilities, and health, safety and environmental hazards are removed.

Improvements are currently being carried out at the Ostiglia site similar to those completed at the Fiume Santo areas 1 and 2, where the old fuel oil units and the adjoining tank farm were demolished. And the **demolition of the old demineralization plant**, which commenced in September 2022, is currently underway at the Mantua power plant. These works are part of the regional air quality action plan, known as PRIA, an environmental redevelopment project launched in 2019, which also included **asbestos removal** in Unit 4 and connected constructions, and which was completed on schedule in 2022. Additionally, the new Combined-Cycle unit in Ostiglia is being developed in the Borgo San Giovanni area that previously housed a **Heavy Fuel Oil (HFO) tank farm, now demolished**.

The demolition phases were handled carefully.

During the demolition and reclamation works, health and safety management produced positive outcomes, thanks to timely controls and continuous **Safety walks and talks**. **The environmental dust and noise control plan and the monitoring** measures were also carried out in a scrupulous and continuous manner. ATS, the health protection agency for the Lombardy Region, played an active role, carrying out continuous monitoring in all areas.

Another site undergoing transformation is the **Trapani power plant**, where a project awaiting authorization is planned for 2023, involving the reclamation and demolition of the old diesel tanks that have been lying unused since 1999.

Last but not least, renovation work was carried out during the year on existing installations at the Tavazzano and Montanaso power plant, including **the modernization of the DEMI water treatment plant**. This upgrading led to a large reduction in reagent consumption and hence to a positive impact on the environment. The consumption of slaked lime, hydrochloric acid and ferric chloride decreased by 62%, 38% and 40%, respectively, compared to the previous year. The

modernization also facilitated a reduction in the production of sludge, and its consequent disposal, from 393 tons in 2021 to 260 tons in 2022.

WASTE MANAGEMENT AND CIRCULARITY

In 2022, 181,000 tons of waste was generated, 96.5% of which was non-hazardous (mainly ash and, to a lesser extent, sludge and gypsum). **85% of non-hazardous waste and 35% of hazardous waste were recovered.**

Since 2020, the Fiume Santo power plant has had an agreement with the company AP Italy S.r.l., whose business is the **extraction of marble from the Orosei quarries**. The extraction process generates a large amount of residue, which amounts to about 50% of the marble actually extracted. Following the logic of circularity, the company now transforms the marble residues into powder, known as **talca**. This powder is used by EP Produzione to reduce sulfur dioxide and, by capturing pollutants, it produces a very high quality gypsum. Then this gypsum, which is treated as waste by the Fiume Santo, is sent out and 100% of it is generally recovered. The gypsum is, in fact, then reused for the production of building materials.

WASTE PRODUCED (t)	2022	2021	2020
Hazardous	141	184	182
Non-hazardous	181,642	125,342	120,876
Total	181,783	125,526	121,058

RELEVANT NON-HAZARDOUS WASTE PRODUCED (t)	2022	2021	2020
Ash	140,197	94,207	84,621
Sludge	15,777	14,607	13,682
Gypsum	19,180	12,221	18,869
From demolitions	146	287	149
Total	175,300	121,322	117,321

In 2022, among the ancillary works related to the construction of the new **production unit in Tavazzano, the Muzza Canal was dredged** to remove sediment that was obstructing the water inlets. The water level was lowered in coordination with the environmental protection agency, ARPA, and the Consorzio Muzza Basso Lodigiano, and the sediments in the water inlets were also removed. The study, coordination and design phase of the activities took place over a period of roughly 2 years so that the digging and cleaning of the canal could be concentrated in less than 3 working weeks. Thanks to this action, the power plant's water intakes were cleaned of sediments that had built up over a period of approx. 25 years.

The operation will produce **environmental benefits** inasmuch as the reclaimed soil will not be treated as waste but will be used on site to create a barrier to mitigate the **visual and acoustic effects of the power plant**. It was, in fact, possible to limit the sending of the material dredged to landfills thanks to two phases of investigation carried out in agreement with the Consorzio di Bonifica Muzza Basso Lodigiano (CBMBL), the manager of the Muzza Canal, and in consultation with the ARPA Department of Lodi. Moreover, approximately 2,500 cubic meters of the sediment will be used by the Consorzio to rebuild the banks of other canals under its management.

Thus, several environmental benefits are achieved in a circular perspective:

- The topsoil from the River Muzza will be put back into circulation and used both on the construction site and for the restoration of other canals;
- thus, the environmental cost deriving from having to **transport soil** from the outside for the construction of the visual and sound barrier is saved;
- dredging has helped restore the **correct flow** of water in the River Muzza.

LISTENING TO AND ENGAGING WITH THE TERRITORY

The Marzano Law (no. 239 of August 23, 2004) lays down a regulatory framework involving the Region, local and territorial public bodies, within which to **agree on appropriate environmental compensation measures** that support the country's energy policy goals. These measures may include the construction of **infrastructure to support the community and sustainable mobility**, landscaping works such as planting and hedgerows, projects for technological innovation and energy saving, environmental education, urban redevelopment and the disclosure of emission data. Furthermore, the measures also include the detection of noise impact, the control of dust production and the safeguarding of training, safety and employment of staff.

Today more than ever, engaging with stakeholders has become a prerequisite for productive integration in the territory. In Italy, the development of infrastructures for energy, roading and the treatment of waste continues to encounter difficulties and delays, not only due to political, community and environmentalist opposition, but also to bureaucratic opposition, and this slows down the infrastructural growth of the country and its energy transition targets. In 2017, the Observatory of the NIMBY (Not In My BackYard) surveyed around 400 contested works nationwide, with a particular focus on Lombardy, Tuscany, Emilia-Romagna, Apulia and Veneto. Communicating, staying up-to-date and disseminating information are strategic activities that work both ways when it comes to steering industrial decisions.

Indeed, only by doing so is it possible to respect the needs of all players involved, developing plants that are perceived by the communities as offering added value, rather than as unwanted guests.

Aware of the importance of these aspects, EP Produzione has promoted numerous consultation and discussion initiatives with the territories affected by the two efficiency improvement projects.

This was done by actively involving the many parties in question and always adopting a transparent and clear approach in the description of the costs and benefits related to the implementation of the interventions.

In December 2022, EP Produzione signed an **agreement with the Lombardy Region and the provincial and municipal authorities** relating to the works to build the new combined-cycle system at the **Tavazzano power plant**. By signing the agreement, EP Produzione undertakes to pay an environmental and territorial compensatory contribution and to take the protection of the environmental dimension into account when conducting renovation work.

In December 2022, the agreement for the allocation of compensation funds following the construction of the new **Ostiglia power plant** was approved by the Lombardy Region and the municipalities involved. The funds will be used for land re-naturalization works in the interests of biodiversity, monitoring of the health of the population and other actions to support local communities. 50% of the area, owned by EP Produzione, will be turned into a public park for the use of the population that will be looked after by EP Produzione. The final signing of the Agreement is scheduled for 2023 after it has done the rounds of the various municipal councils.

The players involved

The Tavazzano and Montanaso power plant

- Lombardy Region
- Province of Lodi

Location of municipality

- Municipality of Montanaso Lombardo
- Municipality of Tavazzano con Villavesco

Neighboring municipalities

- Municipality of Boffalora d'Adda
- Municipality of Casalmaiocco
- Municipality of Galgagnano
- Municipality of Mulazzano
- Municipality of Lodi
- Municipality of Lodi Vecchio
- Municipality of San Zenone al Lambro
- Municipality of Sordio

The Ostiglia power plant

- Lombardy Region
- Province of Mantua

Location of municipality

- Municipality of Ostiglia

Neighboring municipalities

- Municipality of Borgo Carbonara
- Municipality of Borgo Mantovano
- Municipality of Casaleone
- Municipality of Cerea
- Municipality of Gazzo Veronese
- Municipality of Melara
- Municipality of Serravalle sul Po



The staff of EP Produzione
Welfare
Generational change
Skill development

People's wellbeing

[GRI 3-3] [GRI 404-1] [GRI 404-2]

THE STAFF OF EP PRODUZIONE

As at 12/31/2021, the EP Produzione Group has a staff of 511 people, almost all of them on permanent contracts²⁸. This includes 157 staff positions, most of whom are based at the Milan, Rome and Terni offices, while another 354 workers are distributed across the various power plants. Although in the power plants the majority of the staff is male and the average age is rising, in the staff roles the female population has reached 38%, and 62% of the population is under 50 years of age.

Still looking at staff roles, 14% of the women now hold a managerial position: in 2022, women accounted for 18% of Managers and 34% of Middle Managers.

WELFARE

In 2022, EP Produzione renewed its offer of goods and services covered by the company welfare program, **EP**

People, launched in 2017 with a view to enhancing of employees' wellbeing and quality of life. Thanks to a consolidated network of partners scattered throughout the territory, the program offers more than **100,000** goods and services to help employees during their leisure time and holidays, reimbursements for school attendance, babysitting services, and refunding of interest payable on mortgages. Employees can also make additional contributions to their own supplementary pension fund, purchase tickets for transport and shopping vouchers, and from May 2022, they can book their holidays through the portal.

EP Produzione allows employees to convert their **Performance Bonus** into EP People welfare goods and services. The program offers a significant economic benefit, as EP Produzione grants employees an additional contribution of **18% of the converted amount**, thereby increasing the "welfare credit" available to them. Employees also benefit from a tax exemption on the amount of the Bonus, as stipulated by law.

²⁸ The figure does not include employees from Ergosud S.p.A.

DISTRIBUTION OF PERSONNEL	2022	2021	2020
Fiume Santo	187	192	192
Livorno Ferraris	32	32	32
Ostiglia	60	58	62
Tavazzano e Montanaso	72	66	68
Trapani	3	3	3
Staff roles ²⁹	157	144	143
Total	511	495	500

DISTRIBUTION BY AGE	<30 years	30-50 years	>50 years
Staff	6	92	59
Power plants	14	81	259
Total	20	173	318

In 2022, to help them cope with rising commodity and energy prices, EP Produzione decided to give all its employees a **fuel voucher** worth €200.

Additional measures to protect the health of EP Produzione's people include **COVID-19 insurance cover, occupational and non-occupational accident policies, and life insurance** under the National Collective Labor Agreement (CCNL) for the Electricity Sector.

In 2022, the Group took out insurance coverage for all its employees to cover the loss of self-sufficiency, i.e. the inability to perform the normal functions of daily life and self-care independently due to illness or accident.

GENERATIONAL CHANGE

25 people left the company in 2022, the majority due to retirement, but EP Produzione added 41 new members to its team (+5% compared with 2021). By year end, the overall turnover rate reached 4.8%, only one percentage point higher than the previous year.

EPP Next is the program designed to introduce newly-hired employees to the world of EP Produzione.

This is an on-boarding process to integrate newly-hired employees into the company through preliminary orientation activities, so to familiarize them with the organization and its structure, culture, vision, mission and values. The program arranges a couple of meetings a year for newly-hired employees, so as to help the new resources scattered in the different power plants to get to know one another, and give them better insight into the power plants' business.

The first **EPP Next meeting was held at the Fiume Santo power plant in October 2022**. During the two days dedicated to the initiative, the participants were given a tour of the Fiume Santo facility and met the players of the Serie A basketball team "Dinamo Banco di Sardegna", which is sponsored by the Fiume Santo power plant.

During the year, the **Tavazzano and Montanaso power plant** drew up an additional training program for new employees. In addition to covering the mandatory safety aspects, this program also includes **technical training**, divided into theoretical and practical lessons, given by dedicated external lecturers and internal tutors.

²⁹ Staff personnel includes people on secondment from the company Fiume Santo to EP Produzione for the decommissioning of Units 1 and 2.

Through this initiative, the new young hires will gain comprehensive knowledge, both of the existing power plant, and the new one in the pipeline.

Still from the perspective of getting to know the new generations, EP Produzione works with the university sector in the search for new qualified resources, eager to enter the world of EP Produzione. This year, the company took part in “Campus&Leaders&Talents”, the **career day** of the “Tor Vergata” University of Rome which was held virtually on the Easy Virtual Fair platform. Through a personalized virtual stand with corporate images and presentations, the students, undergraduates and graduates had the chance to interact with EP Produzione through one-to-one meetings via chat or video. This initiative is a strategic opportunity for EP Produzione, which has already planned to take part in other national career days, scheduled for 2023.

As of December 2022, EP Produzione will be present on **Tutored**, an online platform that facilitates digital meetings with university students and recent graduates for the purpose of job placement. This tool allows EP Produzione to gain more visibility among the younger generations as it effectively creates an additional channel for recruiting new resources.

SKILL DEVELOPMENT

A total of **19,655 hours of training** were provided in 2022, equating to an average of 36 hours of training per person (compared to 30.9 in the previous year). 44% of the hours were dedicated to the topics of Health and Safety.

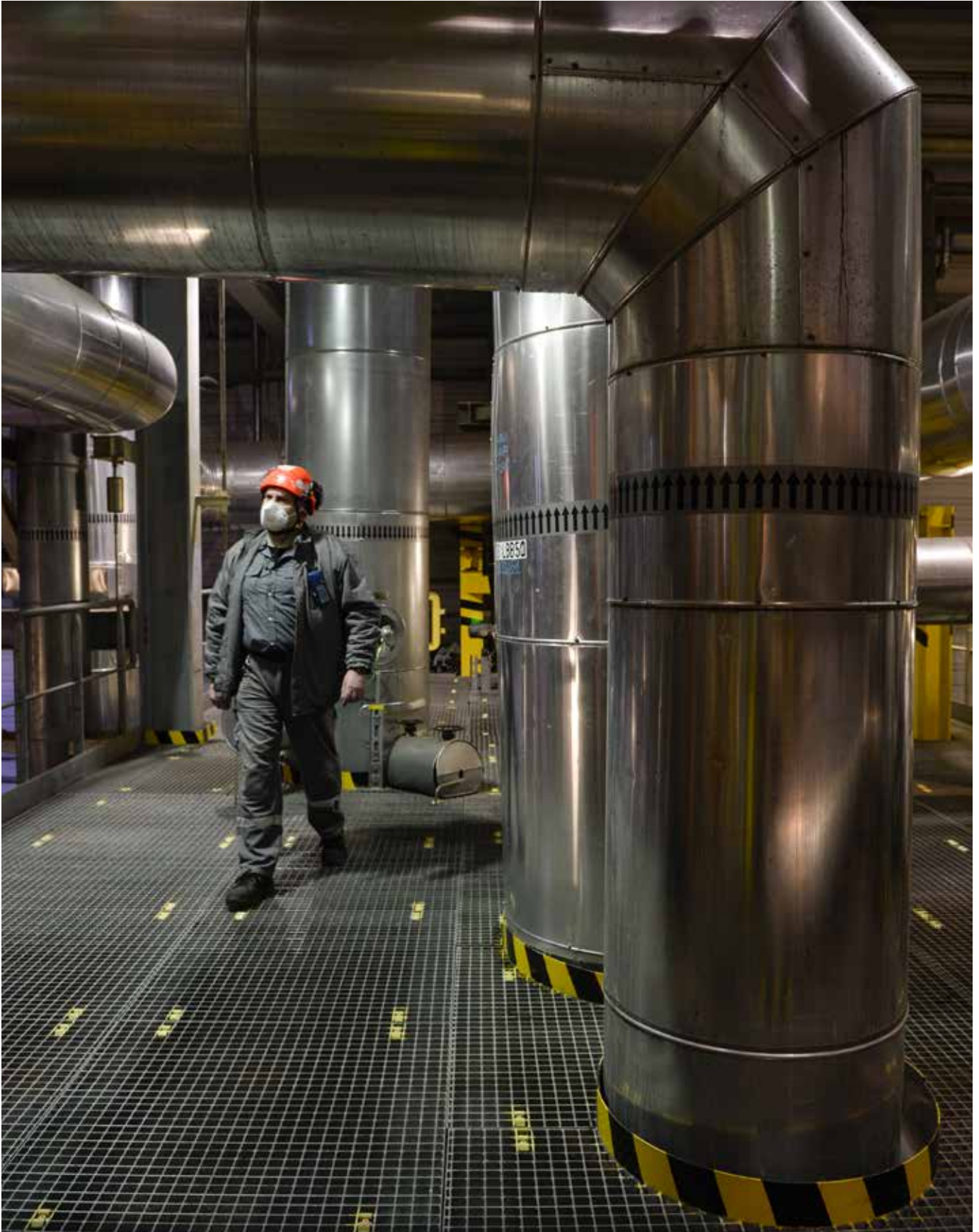
Particular emphasis was placed on improving technical and specialist skills and on the development of managerial competencies. These competencies form the foundation on which HSE, sustainability and innovation are built, and include topics such as Mindfulness, leadership management in a hybrid work environment (involving both physical presence and smart-working) and a dynamic, technology-influenced environment,

providing notions and tools to effectively prevent and manage so-called technostress.

TRAINING BY AREA	2022
(% hours)	
Managerial	2,8%
Linguistic	6,0%
IT	12,0%
Specialist and technical	33,4%
Environmental	1,8%
Health and Safety	44,0%

Among the training initiatives promoted in the course of the year, EP Produzione launched a **sustainability training program** geared to the front lines of the organization and a cross-functional working group, designed to lay the foundations for an effective sustainability task force. The program involved a total of 52 employees who received a total of 27 hours of training.

This course was an opportunity to create common terminology on sustainability and the challenges connected with the energy transition - starting with the new regulatory targets set at a European level - and to share the commitment and results already achieved by EP Produzione.



The digital security of assets
Cybersecurity
Digitalization and Inventory 4.0

Digitalization and IT security

[GRI 3-3]

THE DIGITAL SECURITY OF ASSETS

IT security of the energy infrastructures is a priority on the operational and strategic risk scenario, due to the progressive **digitalization of the sector** and the increasing connectivity of networks, which exposes the infrastructures to potential hacker attacks. Cyber risk is a global phenomenon, but Italy is one of the countries most heavily affected: in the first half of 2022, Italy ranked first in Europe for the number of ransomware and macro-malware attacks³⁰.

At a European level, the regulatory framework set out in the NIS (Network and Information Security) Directive was updated, taking into account the new **Cybersecurity Strategy**. The document was presented in 2020 together with a proposed revision of the NIS Directive (known as NIS2) aimed at incorporating measures to guarantee an increased level of IT security across the European Union.

The revision did not substantially modify the list of **"Operators of Essential Services"** (OES) previously identified in the 2016 NIS, which includes all public or private entities that:

- provide services that are essential for the maintenance of critical societal or economic activities;
- provide essential services that depend on the network and information systems;
- would be damaged in the event of IT incidents, with impacts on the provision of the services.

In Italy, the body responsible for drawing up the list of Operators of Essential Services is the Ministry for Economic Development, which issued Italian Legislative Decree 65/18. The national list includes over **450 public and private organizations**, and is regularly reviewed and updated.

³⁰ Trend Micro Research, Defending the Expanding Attack Surface, 2022.

In 2018, EP Produzione applied the NIS procedure to its generation facilities, putting in place a three-phase process:

- 1. Asset Inventory** of all hardware and software to identify any points of vulnerability;
- 2. Risk Assessment** to assess asset vulnerability risks and draft a Remediation Plan, including initiatives to guarantee that the systems comply with the requirements of the Directive;
- 3. Implementation** of the planned cybersecurity improvement works.

A **Cybersecurity Manager** was appointed in 2021 to deal with this sensitive issue.

In 2022, the **plant remote control** system was upgraded with a more advanced interface that could be personalized and integrate more effectively with other systems. State-of-the-art technologies are used, for both hardware and software, with virtualized servers and daily or weekly backups on dedicated NAS (network-attached storage) systems. The redundancy of the main servers and the disaster recovery system at another site guarantee system continuity in the event of a malfunction. Access security is ensured by network segmentation and control.

In the course of 2022, EP Produzione **integrated the SAP system** by creating an application for sending accidental failure alerts. Thanks to this new application, operators will no longer have to use paper forms and will be able to optimize report creation time without the risk of losing information.

CYBERSECURITY

The cybersecurity team is backed up by experienced partners to continuously monitor EP Produzione's systems and detect and neutralize any anomalies in a timely manner. The cybersecurity experts work in relation to both **Operations Technology (OT)** – i.e. systems that monitor and control equipment, resources

and production system processes – and **Information Technology (IT)**, which covers all personal or company devices with access to the business infrastructures.

With regard to **OT**, in 2020 EP Produzione implemented new primary Control System solutions (DCS – Distributed Control System) for the power plants, today classified as **“NIS Ready”** and completed the assets inventory for all power plants. In July 2022, the first cyber remediation cycle was completed with the implementation of improvement initiatives in all EP Produzione's power plants. The asset inventory and cyber remediation process is by definition continuous and adapts to the results of the vulnerability analyses and to evolving regulations and best practices.

On the **IT** front, the rise in smart-working has increased the risks for IT security. Furthermore, the protection of IT environments has become increasingly complex due to sophisticated cyber attacks that spread rapidly across mobile devices, clouds and networks, often avoiding conventional defenses. This year, cyber attacks increased by 50% compared to last year, particularly striking the education and research sectors. Faced with these growing challenges, EP Produzione decided to adopt a **“Zero Trust” approach to data protection**, consolidating its security systems and investing in training its employees on cyber risks and the appropriate practices to follow.

In 2022, EP Produzione pursued a campaign to prevent phishing to raise staff awareness in this regard. A total of 10,480 simulated attacks were launched, only 11.3% of which succeeded. The 589 employees involved in the campaign learned to recognize phishing attempts disguised as corporate event e-mails, COVID-19 test results and telephone contracts. Thanks to the measures put in place and the heightened attention of users, **89 attempted malware attacks were mitigated and more than 5,000 phishing mails and 13,000 spam mails were filtered out**³¹.

³¹ Phishing attacks are fraudulent communications that appear to come from a reliable source. Spam is an unsolicited e-mail sent en masse to a list of recipients that may contain a malicious attempt to gain access to the recipient's computer. Malware is an intrusive type of software designed to damage and destroy computers and computer systems.

Already in 2020, by way of the **Cybersecurity Handbook**, EP Produzione sought to pass on the few simple rules required to safeguard the confidentiality of the information and protect potentially sensitive data, such as performing operating system security updates, enabling firewalls and antivirus systems, and never clicking suspicious links or attachments.

In 2022, the company started an IT security training program with the aim of providing all its employees with the necessary tools to prevent online cyber attacks. The project, entitled **Cyber Guru Awareness**, was created in collaboration with the company Cyber Guru, to satisfy the need of an ongoing training program aimed at increasing awareness, the perception of danger and readiness to react when faced with risks in digital environment. The training envisages the teaching of 12 annual modules, each focusing on a different topic, including phishing, the IoT, data privacy and smart-working.

To make the program more engaging and effective, in 2022 EP Produzione also launched the **EP Cyber Cup**, a competition between colleagues with a score ranking and a final prize, just like a real tournament. The competition was a huge success, with **over 88% of the employees involved in the program** taking part in the Cyber Cup.

The initiative also includes a video channel, the **"Cyber Guru Channel"**, where employees can access short videos that, by simulating real-life situations, provide a concrete understanding of the cyber threats that individuals and companies have to face.

EP Produzione also upgraded its **digital infrastructure** in order to facilitate smart-working, by introducing new tools for sharing and collaborating such as Microsoft Teams and Sharepoint, and providing **training** courses on the use of these tools. In 2022, a **Network Access Control** system was implemented to prevent unauthorized access to EP Produzione's network, and lockout policies were configured on unrecognized devices in order to prevent internal WIRED attacks (at

production sites) and WIRELESS attacks (for employee access from home and Guests).

DIGITALIZATION AND INVENTORY 4.0

EP Produzione uses **SAP® Extension Suite**, part of the SAP Business Technology Platform, to create intuitive apps and generate inventory documents and material commitments on devices integrated with the SAP ERP application. This digital system makes operations more efficient, minimizing the need for manual data entry and reducing associated errors by allowing QR codes to be scanned for the management of inventories and the use of materials.

In 2022, an automation project was developed to **simplify some repetitive processes in Accounting, Treasury, Finance and Warehouse Management**. The project introduced the use of BOTs, which reduce manual tasks and configuration time and eliminate potential errors due to the manual entering or transformation of data.



Appendix

[GRI 2-1] [GRI 2-2] [GRI 2-3] [GRI 2-5] [GRI 2-14]

METHODOLOGICAL NOTE

The sixth edition of EP Produzione's Sustainability Report confirms the Group's undertaking to report voluntarily and transparently to all our stakeholders on the role played by the power plants in supporting the energy transition and enabling the growth of renewable energy sources, offering a comprehensive view of the commitment and results achieved in the various dimensions of sustainability.

The information provided in this document refers to the 2022 fiscal year (January 1 - December 31) and, where possible, is compared with the data for the two-year period 2021 and 2020. The quantitative data do not include the Scandale power plant and Ergosud, jointly owned with A2A, each company holding 50%.

The Sustainability Report was approved by the Board of Directors of EP Produzione in conjunction with the Consolidated Annual Report.

The scopes of reporting overlap and include:

- **EP Produzione S.p.A.:** an Italian holding company, 100% controlled by EP Power Europe, it owns the Ostiglia (MN) and Trapani (TP) gas-fired power plants;
- **EP Centrale Tavazzano Montanaso S.p.A.:** a subsidiary 100% controlled by EP Produzione, which, as of February 2022, owns the Tavazzano and Montanaso (LO) power plant.
- **Centro Energia Ferrara S.r.l.:** 100% controlled by EP Produzione;
- **Fiume Santo S.p.A.:** 100% controlled by EP Produzione, it owns the Fiume Santo (SS) Power plant;
- **EP Produzione Centrale Livorno Ferraris S.p.A.:** joint venture between EP Produzione S.p.A. (75%) and BKW Italia S.p.A. (25%), it owns the Livorno Ferraris (VC) gas-fired plant;

• **EPP 2 S.r.l. and EPP 3 S.r.l.:** both 100% controlled by EP Produzione, a special purpose vehicle for potential development projects.

EP Produzione drafted a report in compliance with the GRI Standards for the period from January 1, 2022 to December 31, 2022. Data and information corresponding to the GRI standards are indicated in the text by means of identification codes in square brackets under each heading.

The document is structured around **9 material topics**, in accordance with the standards and the future single European standard, identified via the updating of the materiality analysis, a process that makes it possible to establish a threshold above which a topic is important enough to be included in the report. The topics singled out are those in relation to which the company generates or is subject to the most significant impacts from an economic, environmental and social standpoint. Accordingly, the management of EP Produzione selected the most impactful issues based on a number of criteria such as reach, scope, irreparability and likelihood, drawing a threshold above which an issue becomes sufficiently important to be reported. For more information, see the “Materiality Analysis” section of the Sustainability Report dedicated to this topic.

The collection of the data and related content included in this document was carried out **in collaboration with all the staff belonging to the Group**, each in relation to their own activities, generating a full and accurate information flow that guarantees the soundness of the reporting model adopted. The corporate divisions HSE (Health, Safety and Environment) and IR&C (Institutional Relations and Communications) coordinated the project, in order to guarantee a consistent overall result.

As required by the Reporting Standard, the **GRI Content Index** is included in this document, listing the GRI standards on which reporting was done. For further insights or requests for clarification, please contact EP Produzione at:

comunicazione@epPRODUZIONE.it.

USEFUL LINKS

<https://sostenibilita.epPRODUZIONE.com/>

<https://www.epholding.cz/en/sustainability-reports/>

GRI CONTENT INDEX

The Italian version of this report obtained the GRI Materiality Disclosures Service 2023 mark.

Statement of use	EP Produzione has reported in accordance with the GRI Standards for the period from 1 January to 31 December 2022
GRI 1 used	GRI 1: Foundation 2021
Applicable GRI Sector Standard(s)	Not applicable

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION		OMISSION	
			Requirement(s) omitted	Reason	Explanation
GRI 2: General Disclosures 2021	2-1 Organizational details	§ EP Produzione; (p. 12) Energy for the future § Methodological note (p. 86)			
	2-2 Entities included in the organization's sustainability reporting	§ Methodological note (p. 86)			
	2-3 Reporting period, frequency and contact point	§ Methodological note (p. 86)			
	2-4 Restatements of information	No changes were made compared to the previous reporting period. The document was			
	2-5 External assurance	not subject to external assurance. § EP Produzione;			
	2-6 Activities, value chain and other business relationships	Energy for the future (p. 12)			
	2-7 Employees	See reference table. The data shown provide the exact number of employees (head count) as at 31/12/2022, taking into account all types of contracts during the reporting period. For the purpose of classifying employees according to gender, the gender stated in the identity document was taken into account.			

		No significant fluctuations were recorded during the reporting period. § People's wellbeing (p. 78)			
	2-8 Workers who are not employees	EP Produzione has 8 workers who are not employees. The reported figures provide the total number of non-employee personnel (head count) as at 31/12/2022. No significant fluctuations are reported during the reporting period.	Paragraph a (ii)	Information unavailable/incomplete	
	2-9 Governance structure and composition	§ Governance; Corporate bodies and internal committees; The Board of Directors (p. 28-29) See reference table	Paragraph c (iv) (vi)(vii)(viii)	Information unavailable/incomplete	
	2-10 Nomination and selection of the highest governance body	The appointment and selection of the Board of Directors takes place on a fiduciary basis. The Board of Directors is elected upon the recommendation and proposal of the shareholder EP Power Europe.	Paragraph b	Information unavailable/incomplete	
	2-11 Chair of the highest governance body	Peter Černák is the Chairman of the Board of Directors of EP Produzione and does not hold senior management positions within the organization.	Paragraph b; c	Information unavailable/incomplete	
	2-12 Role of the highest governance body in overseeing the management of impacts	The Board of Directors (BoD) has a role in guiding and validating the sustainability strategy and policies. The non-financial reporting exercise is supervised and approved by the BoD.	Paragraph b	Information unavailable/incomplete	
	2-13 Delegation of responsibility for managing impacts	In EP Produzione, the heads of each plant have three types of proxies: for ordinary management, environmental and as employer. There are monthly reports on the management of the organization's impacts.	Paragraph b	Information unavailable/incomplete	

GRI CONTENT INDEX

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION		OMISSION	
			Requirement(s) omitted	Reason	Explanation
	2-14 Role of the highest governance body in sustainability reporting	EP Produzione's Sustainability Report is presented to and approved by the Board of Directors. § Methodological note			
	2-15 Conflicts of interest	The risk of conflicts of interest is monitored through the corporate governance systems and procedures (Management, Organizational and Control Model, Code of Ethics, procedures relating to transactions with related parties). These instruments intervene in the various areas in which conflicts of interest may arise: in the relationships between corporate bodies, suppliers, employees, collaborators and the community. § Governance; The Organization, Management and Control Model (p. 30)	paragraph b	Information unavailable/incomplete	
	2-16 Communication of critical concerns	§ Governance; The Organization, Management and Control Model (p. 30)			
	2-17 Collective knowledge of the highest governance body	Each year, the Board of Directors of EP Produzione receives an alignment on the evolution of the sustainability-related scenario as well as an update on the Group's ESG performance.			
	2-18 Evaluation of the performance of the highest governance body	The Board of Directors is evaluated on the basis of specific indicators provided annually by the Chairman, in consultation with the shareholder. The evaluation is annual, non-independent and impacts the Management by Objectives of the Executive Directors.			
	2-19 Remuneration policies	The remuneration policies for senior executives entail fixed and variable annual compensation.			

		Board members do not receive any remuneration by virtue of specific agreements contained in their employment contracts.	Paragraph b	Information unavailable/incomplete	
	2-20 Process to determine remuneration	The Human Resources Department, in agreement with the CEO, CFO and Country Manager, reviews employees' remuneration annually. Remuneration complies with contractual and social security provisions.	Paragraph b	information unavailable/incomplete	
	2-21 Annual total compensation ratio	-	Paragraph a; b; c;	information unavailable/incomplete	
	2-22 Statement on sustainable development strategy	§ Opening remarks (p. 4-5)			
	2-23 Policy commitments	In assessing and managing economic, environmental and social risks, EP Produzione adopts an approach based on the precautionary principle, integrating the principles adhered to in its Code of Ethics and Conduct. The Code is available at the following link: https://epproduzione.com/wp-content/uploads/2022/09/codice_etico_e_di_comportamento.pdf .	Paragraph d; e; f	Information unavailable/incomplete	
	2-24 Embedding policy commitments	§ Governance; The Organization, Management and Control Model (p. 30)	Paragraph a (iv)	Information unavailable/incomplete	
	2-25 Processes to remediate negative impacts		Paragraph a; b; c; d; e	Information unavailable/incomplete	
	2-26 Mechanisms for seeking advice and raising concerns	§ Governance; The Organization, Management and Control Model (p. 30)			
	2-27 Compliance with laws and regulations	§ Governance; The Organization, Management and Control Model (p. 30)			
	2-28 Membership associations	EP Produzione participates in Elettricità Futura, Assocarboni, Confindustria Nord Sardegna and, as an observer, in Energia Concorrente.			

GRI CONTENT INDEX

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION		OMISSION	
			Requirement(s) omitted	Reason	Explanation
	2-29 Approach to stakeholder engagement	See reference table. § Materiality Analysis (p. 40)			
	2-30 Collective bargaining agreements	100% of employees are covered by collective bargaining agreements (CCNL).			
MATERIAL TOPICS					
GRI 3: Material Topics 2021	3-1 Process to determine material topics	§ Materiality Analysis (p. 40)			
	3-2 List of material topics	§ Materiality Analysis (p. 40)			
	3-3 Management of material topics	§ Materiality Analysis (p. 40)			
HEALTH AND SAFETY					
GRI 3: Material Topics 2021	3-3 Management of material topics	§ Health and Safety (p. 42)			
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	Each plant is certified according to ISO 14001, ISO 45001 and EMAS standards. An occupational health and safety management system is implemented at each plant, both for employees and non-employees, with clearly defined tasks, objectives, responsibilities, roles and actions. Each plant undergoes internal and external audits annually and on request. The system has been implemented in compliance with Legislative Decree 81/08, which is the main regulatory reference for occupational health and safety. In addition, the system covers 100% of workers, activities and workplaces			
	403-2 Hazard identification, risk assessment, and incident investigation	Each workplace within EP Produzione, including offices, which are entrusted to delegates of the employer, has its			

	own risk assessment and a Prevention and Protection Service Manager (RSPP). Each plant or production unit has a safety organization chart identifying roles and responsibilities. The employer establishes a hierarchy of controls based on hazards and creates a matrix to identify risks associated with specific hazards. A systematic assessment is carried out on the basis of this matrix and, if the risk is judged to be high at a preliminary stage, preventive and protective measures are taken to reduce the risk to an acceptable level. On the basis of the identified hazards and risks, continuous monitoring is carried out and, if necessary, action plans are implemented to manage critical issues. EP Produzione acts in accordance with Legislative Decree No. 81/2008, the Organization, Management and Control Model pursuant to Legislative Decree No. 231/2001, INAIL and industry guidelines.			
403-3 Occupational health services	Occupational medicine services include the monitoring of factors that could affect workers' health, regular employee examinations, advice on occupational health and safety, ergonomics and protective equipment, promotion of the adaptation of work to the worker, organization of first aid and emergency interventions, vaccination campaigns and			

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION		OMISSION	
			Requirement(s) omitted	Reason	Explanation
		cancer screens, as well as specific and additional health protocols.			
	403-4 Worker participation, consultation, and communication on occupational health and safety	In accordance with Article 35 of Legislative Decree No. 81/2008, the employer organizes at least one meeting per year in which the workers' safety representative (RLS) and the competent doctor for each production unit participate. Company decisions on health and safety are discussed and shared with the trade union representatives and the RLS present at the plants. The involvement of workers and their representatives takes place on a constant and informal basis, allowing for a direct exchange of information at any time.			
	403-5 Worker training on occupational health and safety	§ Health and Safety; Safety culture (p. 45)			
	403-6 Promotion of worker health	Staff members have access to medical and health services, including diagnostic examinations and preventive health programmes selected by the doctor. Preventive services include flu vaccination campaigns, prostate cancer (PSA) prevention and specific bone weakening tests. All workers can use these services free of charge.			
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	The approach adopted is based on the ISO 45001, which provides for the implementation of an occupational health and safety			

		management system based on the Plan-Do-Check-Act continuous improvement cycle.			
	403-8 Workers covered by an occupational health and safety management system	All of EP Produzione's workers (employees and non-employees) are covered by an occupational health and safety management system, with the exception of workers at the Rome, Terni and Milan sites. These sites are not certified but are managed according to the logic of management systems.			
	403-9 Work-related injuries	See reference table			
	403-10 Work-related ill health	During the three-year period 2020-2022, there were no occupational diseases and/or deaths resulting out of occupational diseases among both employees and non-employees.			
EMISSIONS INTO THE ATMOSPHERE					
GRI 3: Material Topics 2021 GRI 305: Emissions 2016	3-3 Management of material topics	§ Emissions into the atmosphere (p. 50)			
	305-1 Direct (Scope 1) GHG emissions		Paragraph a; b; c; d; e; f; g	Information unavailable/incomplete	
	305-2 Energy indirect (Scope 2) GHG emissions		Paragraph a; b; c; d; e; f; g	Information unavailable/incomplete	
	305-3 Other indirect (Scope 3) GHG emissions		Paragraph a; b; c; d; e; f; g	Information unavailable/incomplete	
	305-4 GHG emissions intensity		Paragraph a; b; c; d	Information unavailable/incomplete	
	305-5 Reduction of GHG emissions		Paragraph a; b; c; d; e	Information unavailable/incomplete	
	305-6 Emissions of ozone-depleting substances (ODS)		Paragraph a; b; c; d	Information unavailable/incomplete	
	305-7 Nitrogen oxides (NO _x), sulfur oxides (SO _x), and other significant air emissions	§ Emissions into the atmosphere; Key facts and figures			

GRI CONTENT INDEX

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION	OMISSION		
			Requirement(s) omitted	Reason	Explanation
RELIABILITY AND CONTINUITY OF SERVICE					
GRI 3: Material Topics 2021	3-3 Management of material topics	§ Reliability and innovation (p. 54)			
PHASE-OUT OF COAL AND FUTURE OF THE SITE					
GRI 3: Material Topics 2021	3-3 Management of material topics	§ Phase-out of coal and future of the site (p. 64)			
GENERATION OF VALUE FOR THE LOCAL AREA					
GRI 3: Material Topics 2021	3-3 Management of material topics	§ Generation of value for the local area (p. 68)			
GRI 201: Economic Performance 2016	201-1 Direct economic value generated and distributed	§ Economic and financial results; The 2022 results (p. 36)			
GRI 204: Procurement Practices 2016	204-1 Proportion of spending on local suppliers	§ Generation of value for the local area; The supply chain (p. 68)			
PROTECTION OF ENVIRONMENT AND BIODIVERSITY					
GRI 3: Material Topics 2021	3-3 Management of material topics	§ Protection of environment and biodiversity (p. 72)			
GRI 303: Water and Effluents 2018	303-1 Interactions with water as a shared resource	§ Protection of environment and biodiversity; The Muzza Canal (p. 73)			
	303-2 Management of water discharge-related impacts		Paragraph a	Information unavailable/incomplete	Inf. non disponibili/
	303-3 Water withdrawal		Paragraph a; b; c; d	Information unavailable/incomplete	
	303-4 Water discharge		Paragraph a; b; c; d; e	Information unavailable/incomplete	
	303-5 Water consumption		Paragraph a; b; c; d	Information unavailable/incomplete	
GRI 304: Biodiversity 2016	304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	§ Protection of environment and biodiversity; The protection of biodiversity in the areas surrounding the Livorno Ferraris power plant (p. 72)			
	304-2 Significant impacts of activities, products and services on biodiversity	§ Protection of environment and biodiversity; The protection of biodiversity in the areas surrounding the Livorno Ferraris power plant (p. 72)			
	304-3 Habitats protected or restored	§ Protection of environment and biodiversity; The protection of biodiversity in the areas surrounding the Livorno Ferraris power plant; (p. 72) Listening to and engaging with the territory (p. 75)			

	304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations	The Livorno Ferraris' plant is located in the Vercellese region, which is home to species listed on the IUCN 'Red List', including: - Emys orbicularis (marsh tortoise), considered as "near threatened"; - Meles meles (badger), considered to be of "least concern"; - Myocastor coypus (nutria), considered to be of "least concern"; - Trachemys scripta (American bog turtle), considered as "least concern";			
GRI 306: Waste 2020	306-1 Waste generation and significant waste-related impacts	§ Protection of environment and biodiversity; Waste management and circularity (p. 74)			
	306-2 Management of significant waste-related impacts		Paragraph a; b; c	Information unavailable/incomplete	
	306-3 Waste generated	§ Protection of environment and biodiversity; (p. 74) Waste management and circularity			
	306-4 Waste diverted from disposal		Paragraph a; b; c; d; e	Information unavailable/incomplete	
	306-5 Waste directed to disposal		Paragraph a; b; c; d; e	Information unavailable/incomplete	

GRI CONTENT INDEX

GRI STANDARD/ OTHER SOURCE	DISCLOSURE	LOCATION		OMISSION	
			Requirement(s) omitted	Reason	Explanation
PEOPLE'S WELLBEING					
GRI 3: Material Topics 2021	3-3 Management of material topics	§ People's wellbeing (p. 78)			
GRI 201: Economic Performance 2016	201-3 Defined benefit plan obligations and other retirement plan	EP Produzione relies on supplementary funds that allow employees to make additional contributions on a voluntary basis. About 70% of non-managerial employees and 90% of managers take part in such schemes.			
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	See reference table			
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	EP Produzione offers a number of standard benefits to its employees. These include life insurance, health care (except for temporary employees), disability and invalidity coverage.			
	401-3 Parental leave	See reference table			
GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee	§ People's wellbeing; Skill development (p. 78) See reference table			
	404-2 Programs for upgrading employee skills and transition assistance programs	§ People's wellbeing; Skill development (p. 78)			
	404-3 Percentage of employees receiving regular performance and career development reviews		Paragraph a	Information unavailable/incomplete	
GRI 405: Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	See reference table			
	405-2 Ratio of basic salary and remuneration of women to men		Paragraph a; b	Information unavailable/incomplete	
					follows

GRI 406: Non-discrimination 2016	406-1 Incidents of discrimination and corrective actions taken	No incidents of discrimination have been reported.			
DIGITALIZATION AND IT SECURITY					
GRI 3: Material Topics 2021	3-3 Management of material topics	§ Digitalization and IT security			
TECHNOLOGICAL INNOVATION AND ASSET INTEGRITY					
GRI 3: Material Topics 2021	3-3 Management of material topics	§ Reliability and innovation			

EP PRODUZIONE'S STAKEHOLDERS

Approach to stakeholder engagement (GRI 2-29)

Our stakeholders	Our stakeholders	Key listening and involvement tools
Financial community	Economic and financial sustainability Value creation Respect for rules Attention to workers' health and safety Environmental protection Integrity of assets Relations with the territory Transparency	Annual Report Sustainability Report Periodic presentations and communications Meetings with stakeholders ESG ratings
Workers	Economic and financial sustainability Attention to the health and safety of workers Integrity of assets Transparency	Intranet Training, refresher and on-the-job training courses Internal communication and awareness campaigns Sustainability Report Call conferences with the CEO Regular safety meetings HSE improvement plan Safety walk and talk and safety hour You Tube/LinkedIn channel Environmental Declarations Code of Ethics and Conduct Meetings with stakeholders
Local communities	Value creation Respect for rules Attention to workers' health and safety Protection of the environment Integrity of assets Relations with the territory Transparency	Annual Report Sustainability Report Regular presentations and communications Dedicated meetings Community support projects Sponsorships and partnerships Agreements with educational institutions and school-to-work projects Technical Monitoring Committee Sustainability Report You Tube/LinkedIn channel and website/Tutored Environmental Declarations 231 Model Meetings with stakeholders
Third sector	Value creation Respect for rules Attention to workers' health and safety Protection of the environment Integrity of assets Relations with the territory Transparency	Communications and documentation sent for regulatory compliance Meetings, hearings and technical meetings Working Groups Technical Control Committee Annual Report Sustainability Report Environmental Declarations Periodic presentations and communications Dedicated meetings Website - supplier area You Tube/LinkedIn channel 231 Model Meetings with stakeholders

follows

Our stakeholders	Our stakeholders	Key listening and involvement tools
Supervisory and regulatory bodies	Respect for rules Attention to workers' health and safety Protection of the environment Integrity of assets Transparency	Communications and documents sent for regulatory compliance Annual Report Sustainability Report Periodic presentations and communications Control and audit visits Technical Control Commission Environmental Statements 231 Model
Suppliers and partners	Economic and financial sustainability Value creation Respect for rules Attention to workers' health and safety Environmental protection Integrity of assets Transparency	Annual Report Sustainability Report Dedicated meetings Website - supplier area 231 Model Meetings with stakeholders
Media	Value creation Respect for rules Attention to workers' health and safety Protection of the environment Integrity of assets Relations with the territory Transparency	Annual Report Sustainability Report Press releases Dedicated meetings Website You Tube/LinkedIn channel
Universities and research	Value creation Attention to workers' health and safety Environmental protection Integrity of assets Relations with the territory	Communications and documentation sent for regulatory compliance Meetings, hearings and technical meetings Working Groups Technical Control Committee Annual Report Sustainability Report Environmental Declarations Periodic presentations and communications Dedicated meetings Website You Tube/LinkedIn channel 231 Model Meeting with stakeholders

GOVERNANCE**Governance structure and composition (GRI 2-9)**

Composition of the highest governing body	Role	Indipendence	Mandate	Other positions (n)	Gender
Peter Černák (Chairman)	Non executive	No	From 23/06/2021 to 31/12/2023	0	M
Luca Alippi (Chief Executive Officer)	Executive	No	From 23/06/2021 to 31/12/2023	2 (Member of the Strategic Committee of Assoelettrica and Vice-President of Elettricità Futura)	M
Marek Spurný (Director)	Non executive	No	From 23/06/2021 to 31/12/2023	0	M
Miroslav Mihaliak (Director)	Executive	No	From 27/02/2023 to 31/12/2023	0	M

Diversity of governance bodies (GRI 405-1, paragraph a)**BOARD OF DIRECTORS****EP Produzione S.p.A.**

2020						2021						2022					
Gender		Age group			Tot.	Gender		Age group			Tot.	Gender		Age group			Tot.
Male	Female	<30 year	30-50 year	>50 year		Male	Female	<30 year	30-50 year	>50 year		Male	Female	<30 year	30-50 year	>50 year	
100%	0%	0%	75%	25%	4	100%	0%	0%	75%	25%	4	100%	0%	0%	75%	25%	4

BOARD OF STATUTORY AUDITORS**EP Produzione S.p.A.**

2020						2021						2022					
Gender		Age group			Tot.	Gender		Age group			Tot.	Gender		Age group			Tot.
Male	Female	<30 year	30-50 year	>50 year		Male	Female	<30 year	30-50 year	>50 year		Male	Female	<30 year	30-50 year	>50 year	
100%	0%	0%	0%	100%	3	100%	0%	0%	0%	100%	3	100%	0%	0%	0%	100%	3

SUPERVISORY BODY**EP Produzione S.p.A.**

2020						2021						2022					
Gender		Age group			Tot.	Gender		Age group			Tot.	Gender		Age group			Tot.
Male	Female	<30 year	30-50 year	>50 year		Male	Female	<30 year	30-50 year	>50 year		Male	Female	<30 year	30-50 year	>50 year	
100%	0%	0%	33%	66%	3	100%	0%	0%	33%	66%	3	100%	0%	0%	33%	66%	3

**HEALTH AND SAFETY
IN EP PRODUZIONE**
Work-related injuries (GRI 403-9)

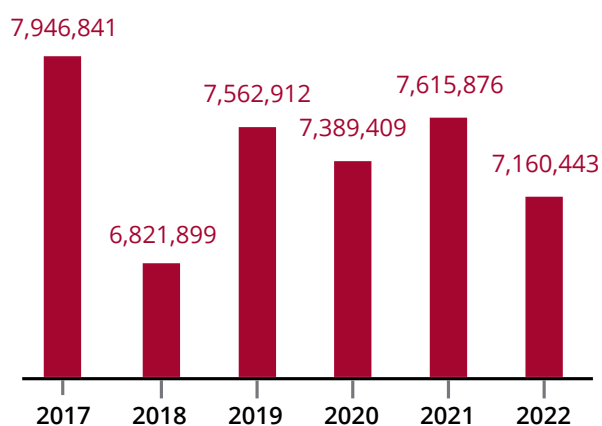
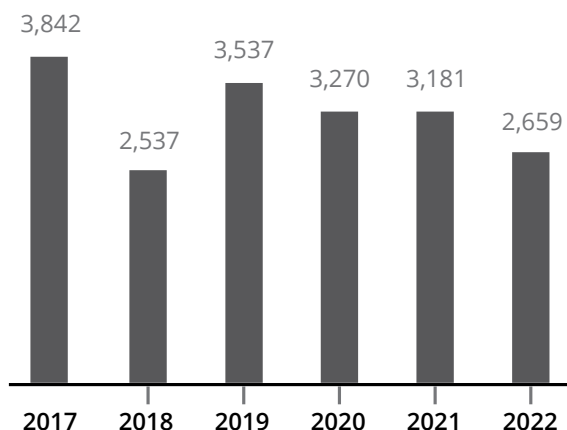
A. WORK-RELATED ACCIDENTS OF EMPLOYEES (N)	2020	2021	2022
Recordable accidents	0	2	1
Accident rate	0	2.19	1.10
<i>of which fatalities</i>	0		0
Rate of deaths	0	0	-
<i>of which with serious consequences</i>	0		0
Severity index	-	-	-
Main types of accidents	-	Slips and trips	Slips, trips and falls on level ground
Hours worked (n)	896,849	911,316	905,762

B. WORK-RELATED ACCIDENTS OF NON- EMPLOYEES (N)	2020	2021	2022
Recordable accidents	2	1	0
Accident rate	2.09	0.77	0
<i>of which fatalities</i>	0	0	0
Rate of deaths	0	0	0
<i>of which with serious consequences</i>	0	0	0
Severity index	0	0	0
Main types of accidents	Minor injuries	Slips and trips	-
Hours worked (n)	957,076	1,304,326	1,722,076

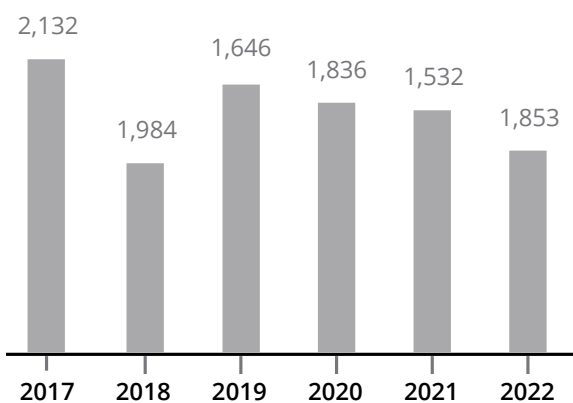
EMISSIONS

MASS EMISSIONS INTO THE ATMOSPHERE

Mass emissions (t)	2017	2018	2019	2020	2021	2022
CO ₂	7,946,841.00	6,821,899.30	7,562,912.00	7,389,409.00	7,615,876.00	7,160,443.00
% CO ₂ originating from coal	0.40	0.41	0.39	0.37	0.28	0.39
NO _x	3,842.00	2,536.94	3,537.30	3,270.30	3,181.00	2,659.10
CO	2,132.00	1,984.20	1,646.30	1,836.30	1,531.80	1,853.20
SO ₂ Fiume Santo	1,774.00	1,400.23	1,798.00	1,564.80	1,046.80	982.90
Dust Fiume Santo	129.70	129.26	100.60	88.70	93.30	57.80
Net energy produced (GWh)	15,030.10	12,718.30	14,377.00	14,282.30	16,195.30	14,099.00

Mass CO₂ emission (t)Mass NO_x emission (t)

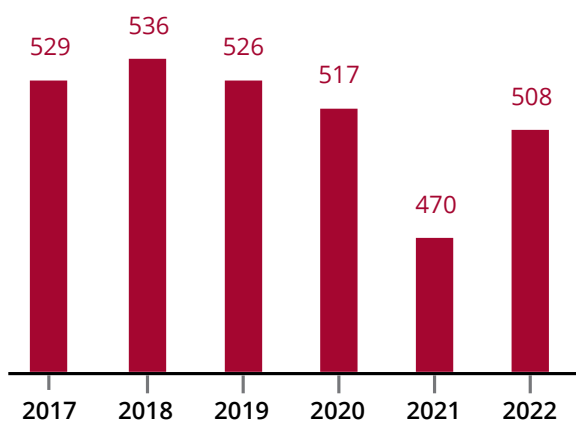
Mass CO emission (t)



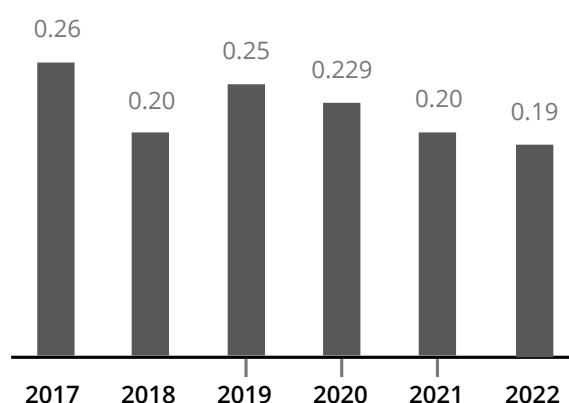
SPECIFIC EMISSIONS INTO THE ATMOSPHERE

Specific emissions (t/GWh)*	2017	2018	2019	2020	2021	2022
CO ₂	528.73	536.38	526.04	517.38	470.25	507.92
NO _x	0.26	0.20	0.25	0.229	0.20	0.19
CO	0.142	0.156	0.115	0.129	0.095	0.1
SO ₂ (Fiume Santo)	0.118	0.110	0.125	0.110	0.065	0.1
Dust (Fiume Santo)	0.009	0.010	0.007	0.006	0.006	0.004

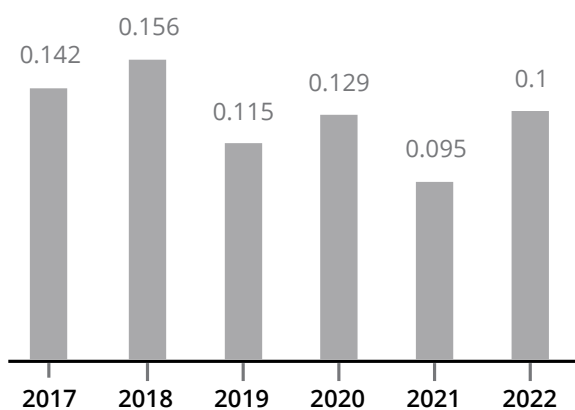
Specific CO₂ emission (t)



Specific NO_x emission (t)



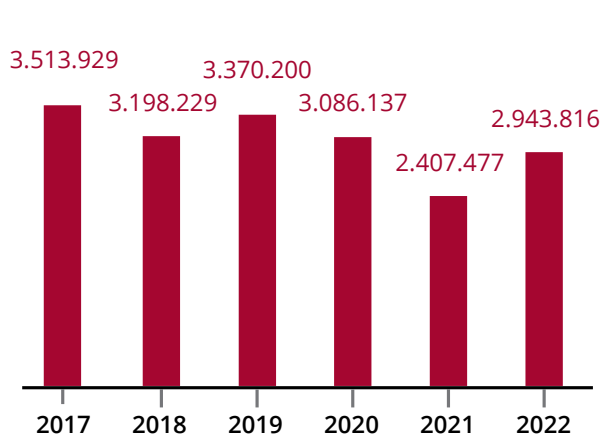
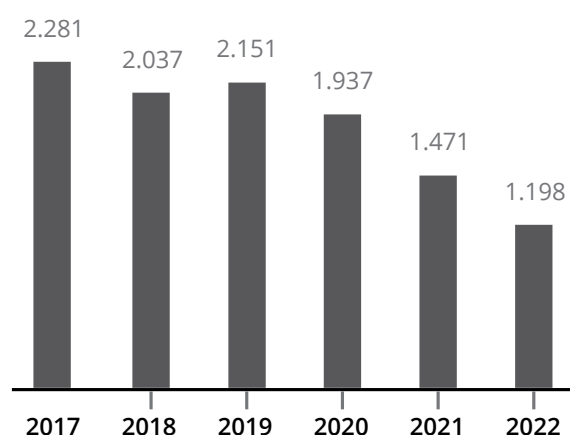
Specific CO emission (t)



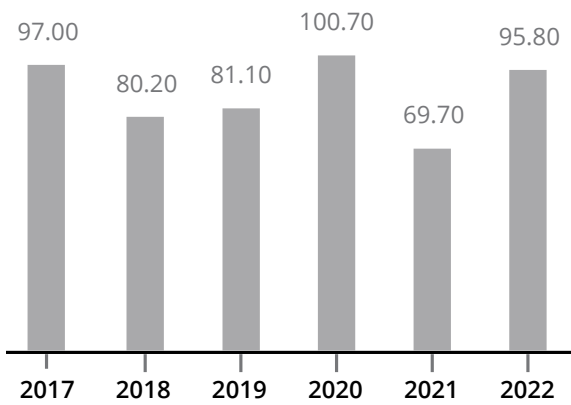
MASS AND SPECIFIC EMISSIONS ARISING OUT OF THE FIUME SANTO (FS) POWER PLANT

Mass emissions (t)	2017	2018	2019	2020	2021	2022
CO ₂	3,513,929.00	3,198,228.94	3,370,200.00	3,086,137.00	2,407,477.00	2,943,816.00
NO _x	2,281.00	2,037.00	2,151.00	1,937.00	1,471.00	1,198.00
CO	97.00	80.20	81.10	100.70	69.70	95.80
SO ₂	1,774.00	1,400.23	1,798.00	1,564.80	1,046.80	982.90
Dust	129.70	129.26	100.60	88.70	93.30	62.70
Net energy produced (GWh)	3,565.00	3,185.00	3,317.00	3,050.00	2,365.50	2,845.10

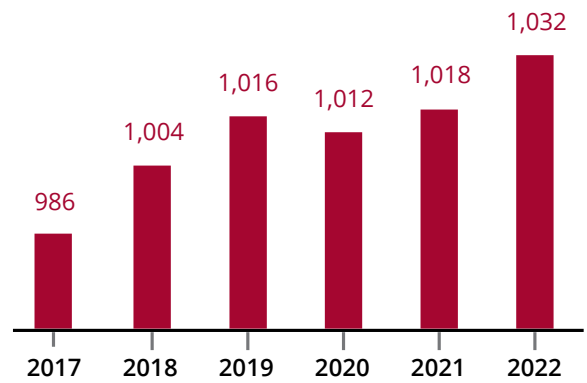
Specific emissions (t/GWh)	2017	2018	2019	2020	2021	2022
CO ₂	985.67	1,004.15	1,016.04	1,011.85	1,017.75	1,031.53
NO _x	0.64	0.64	0.65	0.64	0.62	0.42
CO	0.03	0.03	0.02	0.03	0.03	0.03
SO ₂	0.50	0.44	0.54	0.51	0.44	0.35
Dust	0.036	0.041	0.030	0.029	0.039	0.022

Mass CO₂ emission from Fiume Santo (t)Mass NO_x emission from Fiume Santo (t)

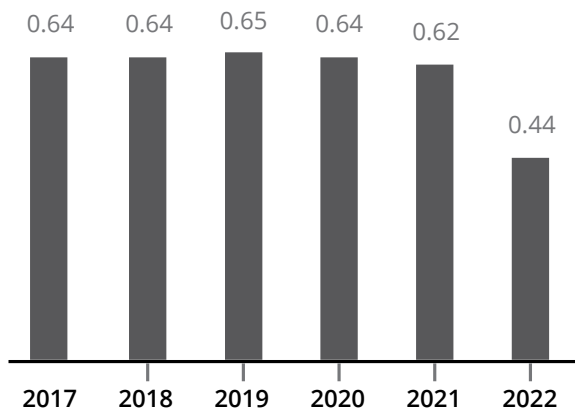
Mass di CO emission from Fiume Santo (t)



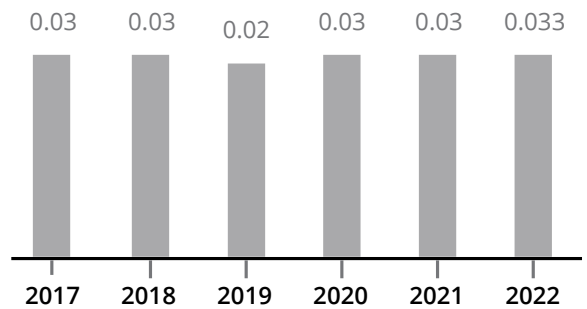
Specific CO₂ emission from Fiume Santo (t/GWh)



Specific NO_x emission from Fiume Santo (t/GWh)



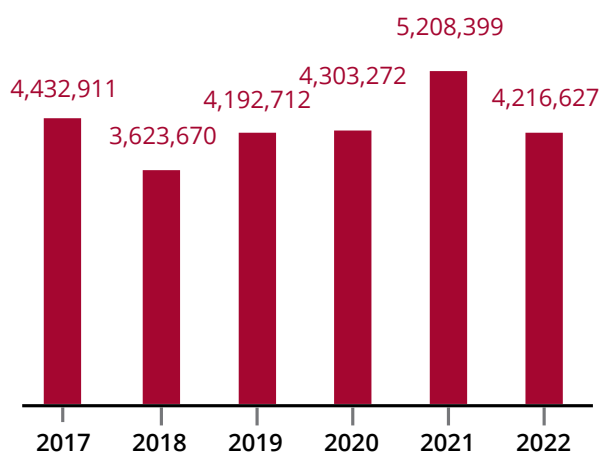
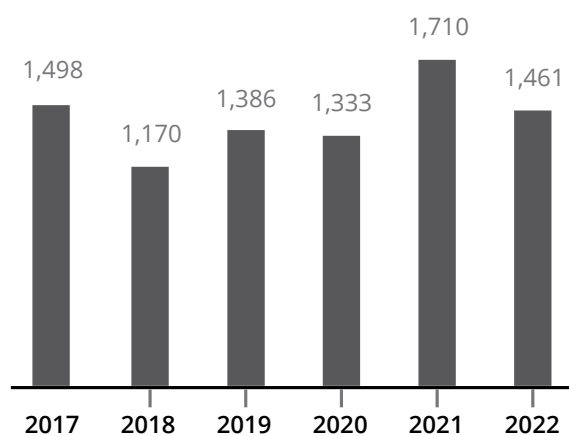
Specific CO emission from Fiume Santo (t/GWh)



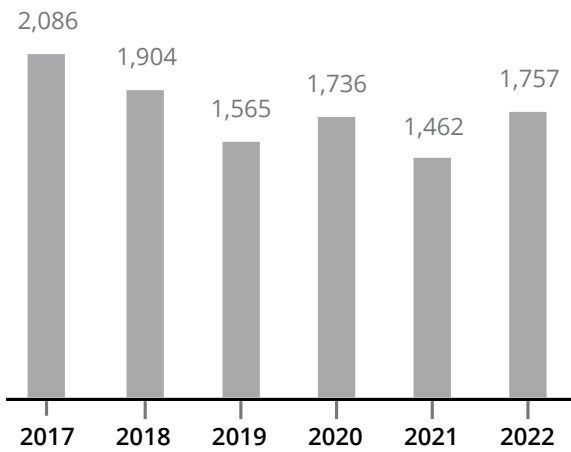
MASS AND SPECIFIC EMISSIONS ARISING OUT OF CCGT POWER PLANTS

Mass emissions (t)	2017	2018	2019	2020	2021	2022
CO ₂	4,432,911.00	3,623,670.36	4,192,712.00	4,303,272.00	5,208,399.00	4,216,627.00
NO _x	1,498.16	1,170.00	1,386.30	1,333.30	1,710.00	1,461.10
CO	2,085.95	1,904.00	1,565.20	1,735.60	1,462.10	1,757.40
Net energy produced (GWh)	11,481.00	9,534.00	11,060.00	11,232.30	13,829.80	11,234.82

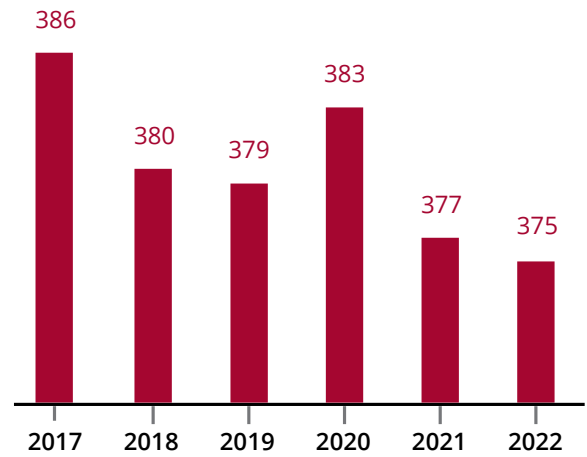
Specific emissions (t/GWh)*	2017	2018	2019	2020	2021	2022
CO ₂	386.1	380.1	379.1	383.1	376.6	375.31
NO _x	0.13	0.12	0.13	0.12	0.12	0.13
CO	0.18	0.20	0.14	0.15	0.11	0.16

Mass CO₂ emission from CCGT (t)Mass NO_x emission from CCGT (t)

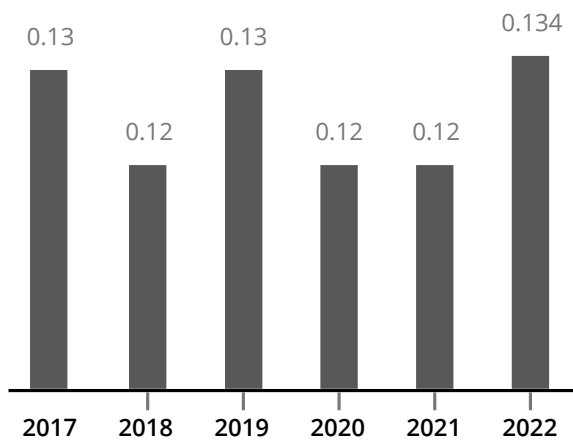
Mass CO emission from CCGT (t)



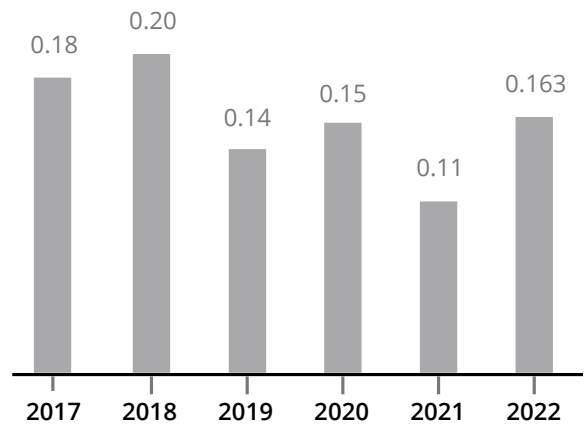
Specific CO₂ emission from CCGT (t/GWh)



Specific NO_x emission from CCGT (t/GWh)



Specific CO emission from CCGT (t/GWh)



PEOPLE'S WELLBEING

Employees (GRI 2-7)

EMPLOYEES	2020			2021			2022		
	Male	Female	Tot.	Male	Female	Tot.	Male	Female	Tot.
Fiume Santo	184	8	192	184	8	192	179	8	187
Livorno Ferraris	29	3	32	30	2	32	29	3	32
Ostiglia	61	1	62	57	1	58	59	1	60
Tavazzano and Montanaso	64	4	68	61	5	66	5	67	72
Trapani	3	0	3	3	0	3	0	3	3
Staff functions	94	49	143	90	54	144	97	60	157
TOTAL	435	65	500	425	70	495	369	142	511

PERMANENT - TEMPORARY	2020					2021					2022				
	Permanent		Temporary			Permanent		Temporary			Permanent		Temporary		
	Male	Female	Male	Female	Tot.	Male	Female	Male	Female	Tot.	Male	Female	Male	Female	Tot..
Fiume Santo	180	8	4	0	192	184	8	0	0	192	179	8	0	0	187
Livorno Ferraris	29	3	0	0	32	30	2	0	0	32	29	3	0	0	32
Ostiglia	61	1	0		62	57	1	0	0	58	59	1	0	0	60
Tavazzano and Montanaso	64	4	0	0	68	61	5	0	0	66	66	5	1	0	72
Trapani	3	0	0	0	3	3	0	0	0	3	3	0	0	0	3
Staff functions	92	49	2	0	143	89	53	1	1	144	96	60	1	0	157
TOTAL	429	65	6	0	500	424	69	1	1	495	432	77	2	0	511

FULL TIME - PART TIME	2020					2021					2022				
	Full Time		Part time			Full Time		Part time			Full Time		Part time		
	Male	Female	Male	Female	Tot.	Male	Female	Male	Female	Tot.	Male	Female	Male	Female	Tot.
Fiume Santo	183	8	1	0	192	183	8	1	0	192	178	7	1	1	187
Livorno Ferraris	29	3	0	0	32	30	1	0	1	32	29	2	0	1	32
Ostiglia	61	1	0	0	62	57	1	0	0	58	59	1	0	0	60
Tavazzano and Montanaso	63	4	1	0	68	60	5	1	0	66	66	5	1	0	72
Trapani	3	0	0	0	3	3	0	0	0	3	3	0	0	0	3
Staff functions	93	46	1	3	143	89	52	1	2	144	96	57	1	3	157
TOTAL	432	62	3	3	500	442	67	3	3	495	431	72	3	5	511

Gender diversity of employees (GRI 405-1, paragraph b)

BLUE COLLAR - male/female	2020		2021		2022	
	Male	Female	Male	Female	Male	Female
Fiume Santo	100%	0%	100%	0%	100%	0%
Livorno Ferraris	100%	0%	100%	0%	100%	0%
Ostiglia	100%	0%	100%	0%	100%	0%
Tavazzano and Montanaso	100%	0%	100%	5%	95%	5%
Trapani	0%	0%	0%	0%	0%	0%
Staff functions	0%	0%	0%	0%	0%	0%
TOTAL	100%	0%	100%	0%	100%	0%
WHITE COLLAR - male/female	2020		2021		2022	
	Male	Female	Male	Female	Male	Female
Fiume Santo	75%	25%	75%	25%	80%	20%
Livorno Ferraris	100%	0%	100%	0%	100%	0%
Ostiglia	100%	0%	100%	0%	100%	0%
Tavazzano and Montanaso	100%	0%	100%	0%	100%	0%
Trapani	100%	0%	100%	0%	100%	0%
Staff functions	68%	32%	67%	33%	66%	34%
TOTAL	73%	27%	72%	28%	71%	29%
EXECUTIVES - male/female	2020		2021		2022	
	Male	Female	Male	Female	Male	Female
Fiume Santo	94%	6%	94%	6%	94%	6%
Livorno Ferraris	88%	12%	92%	8%	88%	12%
Ostiglia	98%	2%	98%	2%	98%	2%
Tavazzano and Montanaso	92%	8%	90%	10%	90%	10%
Trapani	100%	0%	100%	0%	100%	0%
Staff functions	58%	42%	54%	46%	54%	46%
TOTAL	86%	14%	84%	16%	83%	17%
DIRECTORS - male/female	2020		2021		2022	
	Male	Female	Male	Female	Male	Female
Fiume Santo	100%	0%	100%	0%	100%	0%
Livorno Ferraris	100%	0%	100%	0%	100%	0%
Ostiglia	100%	0%	100%	0%	100%	0%
Tavazzano and Montanaso	0%	0%	100%	0%	100%	0%
Trapani	0%	0%	0%	0%	0%	0%
Staff functions	89%	11%	85%	15%	82%	18%
TOTAL	91%	9%	87%	13%	85%	15%

Intergenerational diversity of employees (GRI 405-1, paragraph b)

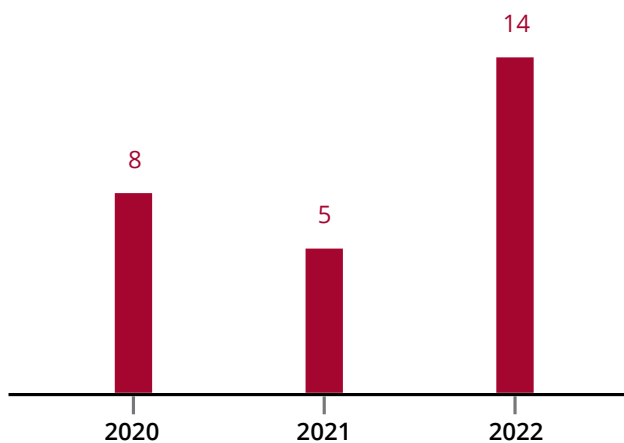
BLUE COLLAR - age classes	2020			2021			2022		
	<30 y. o.	30-50 y. o.	>50	<30 y. o.	30-50 y. o.	>50	<30 y. o.	30-50 y. o.	>50
Fiume Santo	0%	34%	66%	0%	31%	69%	0%	27%	73%
Livorno Ferraris	0%	75%	25%	0%	75%	25%	0%	67%	33%
Ostiglia	9%	27%	64%	10%	40%	50%	34%	33%	33%
Tavazzano and Montanaso	19%	25%	56%	20%	33%	47%	33%	52%	15%
Trapani	0%	0%	0%	0%	0%	0%	0%	0%	0%
Staff functions	0%	0%	0%	0%	0%	0%	0%	0%	0%
TOTAL	4%	34%	62%	4%	34%	61%	12%	35%	53%
WHITE COLLAR - age classes	2020			2021			2022		
	<30 y. o.	30-50 y. o.	>50	<30 y. o.	30-50 y. o.	>50	<30 y. o.	30-50 y. o.	>50
Fiume Santo	0%	25%	75%	0%	25%	75%	0%	20%	80%
Livorno Ferraris	0%	50%	50%	0%	50%	50%	0%	50%	50%
Ostiglia	0%	67%	33%	0%	67%	33%	0%	75%	25%
Tavazzano and Montanaso	0%	50%	50%	0%	100%	0%	0%	50%	50%
Trapani	0%	0%	100%	0%	0%	100%	0%	0%	100%
Staff functions	0%	66%	34%	2%	48%	50%	0%	53%	47%
TOTAL	0%	61%	39%	2%	47%	51%	0%	50%	50%
EXECUTIVES - age classes	2020			2021			2022		
	<30 y. o.	30-50 y. o.	>50	<30 y. o.	30-50 y. o.	>50	<30 y. o.	30-50 y. o.	>50
Fiume Santo	0%	14%	86%	0%	10%	90%	1%	8%	91%
Livorno Ferraris	0%	44%	56%	0%	36%	64%	0%	42%	58%
Ostiglia	0%	23%	77%	2%	23%	75%	2%	25%	73%
Tavazzano and Montanaso	2%	24%	74%	2%	22%	76%	2%	19%	79%
Trapani	0%	0%	100%	0%	0%	100%	0%	0%	100%
Staff functions	12%	59%	28%	10%	62%	28%	7%	63%	29%
TOTAL	3%	30%	67%	3%	28%	69%	3%	28%	69%
DIRECTORS - age classes	2020			2021			2022		
	<30 y. o.	30-50 y. o.	>50	<30 y. o.	30-50 y. o.	>50	<30 y. o.	30-50 y. o.	>50
Fiume Santo	0%	100%	0%	0%	100%	0%	0%	100%	0%
Livorno Ferraris	0%	100%	0%	0%	100%	0%	0%	100%	0%
Ostiglia	0%	0%	100%	0%	0%	100%	0%	0%	100%
Tavazzano and Montanaso	0%	0%	0%	0%	0%	0%	0%	100%	0%
Trapani	0%	0%	0%	0%	0%	0%	0%	0%	0%
Staff functions	0%	63%	37%	0%	65%	35%	0%	55%	45%
TOTAL	0%	65%	36%	0%	65%	35%	0%	58%	42%

New employee hires and employee turnover (GRI 401-1)

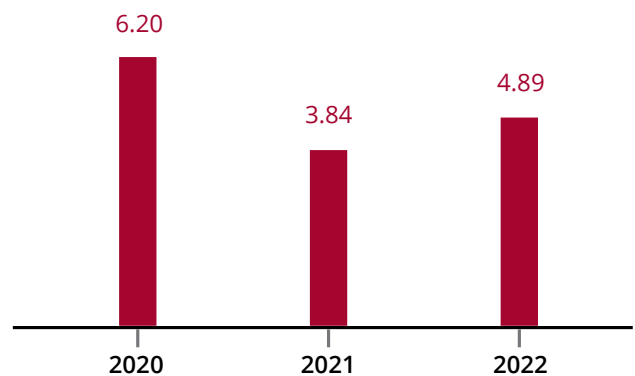
A. HIRES	2020			2021			2022		
	Female	Male	Tot.	Female	Male	Tot.	Female	Male	Tot.
< 30 years old		8	8	3	2	5		14	14
30 - 50 years old	4	15	19	2	6	8	9	14	23
> 50 years old		2	2	1		1		4	4
Total	4	25	29	6	8	14	9	32	41
Total employees	500			495			511		
Hiring rate	5,80			2,83			8,02		

B. TURNOVER	2020			2021			2022		
	Female	Male	Tot.	Female	Male	Tot.	Female	Male	Tot.
< 30 years old		3	3		1	1		1	1
30 - 50 years old	1	3	4		6	6	2	5	7
> 50 years old	1	23	24	1	11	12		17	17
Total	2	29	31	6	18	19	2	23	25
Total employees	500			495			511		
Turnover rate	6,20			3,84			4,89		

Recruitment of employees aged < 30 y.o. (n)



Turnover rate (%)



Parental leave (GRI 401-3)

PARENTAL LEAVE	2020			2021			2022		
	Male	Female	Tot.	Male	Female	Tot.	Male	Female	Tot.
a. Employees entitled to parental leave	5	8	13	17	9	26	8	11	19
b. Employees who have taken parental leave	5	8	13	17	9	26	8	11	19
c. Employees returned to work after parental leave	5	8	13	17	9	26	8	11	19
d. Employees who returned to work and are still employed 12 months after their return to work	5	7	12	17	8	25	8	10	18
e. Return to work rate	100			100			100		
e. Retention rate	-			192,31			69,23		

INFORMATION NEEDED TO CALCULATE THE RETURN AND RETENTION RATE	2020	2021	2022
Total number of employees who should have return to work after taking parental leave	13	26	19
Total number of employees returned to work following parental leave in the previous reporting period(s)	12	25	18

Training hours 2022

SUBJECT-MATTER	TP	TZ	OS	LF	SC	FS	Staff	Dirigenti	Totale
<i>Managerial</i>	-	69	9	-	3	51	393	21	545
<i>Linguistics</i>	-	-	68	-	-	119	1,118	79	1,305
<i>Informatics</i>	7	269	379	292	247	470	688	58	2,410
<i>Technical-specialist</i>	-	5,318	98	287	79	88	559	138	6,567
<i>Environmental</i>	-	326	-	22	8	6	-	-	362
<i>Health and Safety</i>	62	2,514	858	914	738	2,773	824	72	8,755
Total	69	8,496	1,412	1,515	1,075	3,507	3,582	368	19,655
Employees	3	72	60	32	33	188	156	-	544
Average training hours	23	118	24	47	33	19	23	-	36
Average days/year per person	2.9	14.8	2.9	5.9	4.1	2.3	2.9	-	4.5





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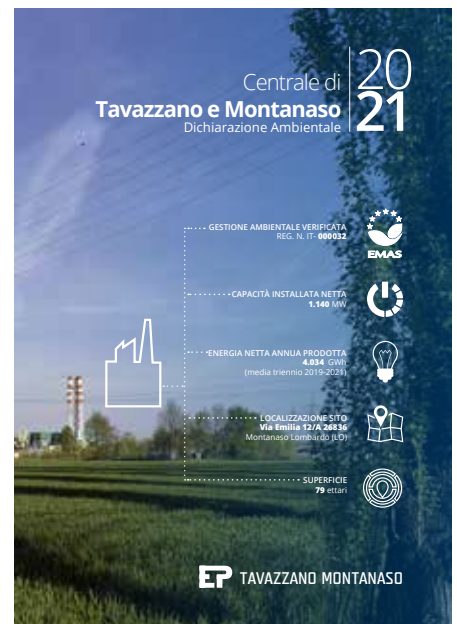
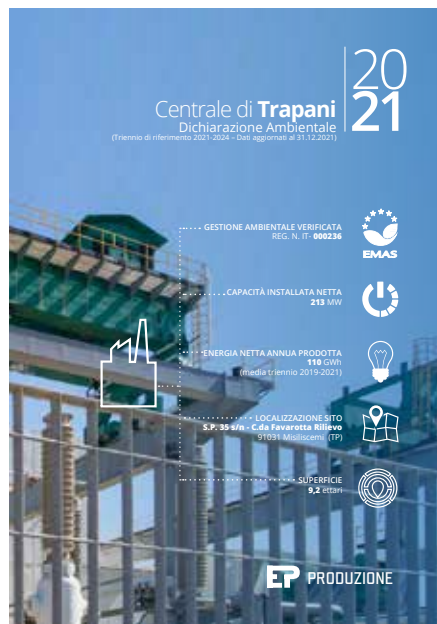
EP PRODUZIONE

EP Produzione è la società italiana di generazione elettrica del Gruppo EPH ed è specializzata nella produzione di energia elettrica da fonti termiche. L'azienda vanta una capacità di generazione pari a circa **4,4 GW** grazie a **cinque impianti a gas**, di cui uno in compartecipazione con A2A Gencogas S.p.A., e uno a carbone.

The Sustainability Report
is also available at:



sostenibilita.epproduzione.com
(Italian language only)



Within the website, Environmental Declarations

are also available for consultation, in which we proactively communicate and, according to principles of transparency, report the results achieved in relation to the predetermined environmental objectives and indicate how we intend to continuously improve our environmental performance.

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When we talk about Safety, Environment and Health, #abbicura is our motto.

First and foremost, it means devoting the utmost attention, always, to protecting Safety in everything we do, also by helping our colleagues and learning from mistakes to continuously improve.

It means respecting the Environment that surrounds us, starting at work, where we spend most of our time and in which order and cleanliness are essential to ensure that we work efficiently and safely.

It means giving utmost importance to our Health and well-being: assets of great value that must be safeguarded, for us and for those who live with us.