

## PRESS RELEASE

## EDISON INAUGURATES THE MOST EFFICIENT THERMOELECTRIC POWER PLANT IN ITALY: AN INDUSTRIAL EXCELLENCE TO SUPPORT THE COUNTRY'S ENERGY TRANSITION

The new plant of Marghera Levante is the first latest-generation thermoelectric power plant in Italy and among the most efficient in the world. Thanks to the GT36 turbine, it is able to reduce specific emissions of nitrogen oxides by up to 70% and carbon emissions by up to 30% compared to the current average of the Italian thermoelectric fleet.

The new turbine is also technologically ready for the use of hydrogen mixed with natural gas.

Milan, June 16, 2023 – Edison inaugurates in Porto Marghera (VE) **the most efficient thermoelectric power plant in Italy and among the most efficient in the world, the first latest-generation** facility of its kind, contributing to the country's energy transition. An important milestone for the security of the Italian energy system, ensuring a highly flexible, low-carbon production that balances the intermittent nature of renewable sources, thus contributing to the achievement of the country's decarbonisation targets set by the PNIEC.

The new plant of Marghera is a revamping of an existing thermoelectric power plant, built in 1964 and constantly renewed in terms of technology, so much so that in 1992 it became the first natural gas combined cycle in Italy. Construction work took 4 years to complete, employing up to **1,000 workers** during peak times and **250 suppliers**, for a total investment of **around 400 million euros**. The plant has **an installed capacity of 780 MW and an energy efficiency of 63%**, the highest output currently available, able to ensure a reduction of specific emissions of nitrogen oxides (NOx mg/kWh) by up to 70% and of carbon emissions (CO2 mg/kWh) by up to 30% compared to the current average of the Italian thermoelectric park, satisfying the equivalent annual needs of about **2,000,000 families**.

«We are proud to be the first, once again, to lead innovation in Italy thanks to a latest-generation plant that is highly strategic for the flexibility and adequacy of the national electricity system. A goal we set as a responsible operator, leader in the country's energy transition. Edison has in its DNA the ability to innovate, as reflected in its 140 years of industrial leadership. And, today, we celebrate this important milestone thanks to the synergies with Veneto, a highly dynamic region, and our partnership with an Italian excellence such as Ansaldo Energia», says **Edison Chief Executive Officer, Nicola Monti**. «Our Group has an investment plan amounting to 10 billion euros between now and 2030 dedicated to the energy transition, half of which for the growth in renewable energy. And the new plant of Marghera is a tangible proof of how different technologies can work towards the common goal of decarbonisation, to ensure security of energy supply and economic sustainability».

«The construction of the new power plant in Marghera meant a major challenge, in particularly complex years, first due to the Covid-19 pandemic and then to the high volatility of the markets. In spite of everything, we have continued to work with determination, aware that the new Marghera Levante plant is a strategic asset for the country to enable grid balancing and at the same time to accelerate the development of new

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installations from renewables, to which we are also committed with ambitious growth targets», says **Executive Vice President and Head of Edison Power Asset Division, Marco Stangalino.** «For us at Edison, Marghera Levante is a record-breaking plant: it was the Group's first thermoelectric power plant in the 1960s, the first gas turbine power plant with class-E turbines in 1992, and first one with class-F turbines in 2001. Having been constantly upgraded, it is now the first plant of its kind in Italy, thanks to the outstanding work of local businesses and Edison people alike, who made it possible to complete the revamping without interrupting the supply of electricity to the system and technological steam to the surrounding chemical hub».

«It gives us great satisfaction to see our first GT36 ready to support the country's electricity production. This latest-generation turbine is a highly performing machine characterised by unprecedented technological innovation, also in terms of green fuels», says **Ansaldo Energia Chief Executive Officer, Fabrizio Fabbri**. «We do not hide our pride in having collaborated with Edison on such an important project and we hope this is just the first of many opportunities and strategic partnerships to come».

Edison's new 780 MW natural gas combined cycle of Marghera Levante consists of a 515 MW class 'H' turbine from Ansaldo Energia – technologically ready for the use of up to 50% hydrogen mixed with natural gas – a heat recovery steam generator (HRSG) with a catalytic system for the reduction of nitrogen oxides (SCR) inside, and a 265 MW steam turbine (TVB).

The revamp involved dismantling gas turbines TG3 and TG4, which had been installed in 1992, heat recovery steam generators GVR3 and GVR4, steam turbine TV1, and steam generator B2. The plant's structure itself was also rationalised, reducing the number of chimneys from 5 to 3, with an improved visual impact as a result.

When the new production set-up became fully operational, the 2001 TG5 and TV2 generating sets, which ensured the continuity of steam supply to the plants in the Marghera industrial area and of electricity to the national grid during the construction phase, were kept in reserve as a back-up in the event of plant maintenance.

The Marghera Levante plant, now fully operational, currently employs approximately 40 people, including the operation and maintenance team and other corporate staff.

## Edison's plant fleet

With **7.2 GW** of **installed capacity** distributed across the country, Edison **covers 7% of the Italian electricity production**. It is an integrated operator along the electricity value chain: from power generation to plant operation and maintenance, to sale to end customers. In 2022, Edison produced **19.7 TWh of electricity**, including 3.4 TWh of green energy (wind, photovoltaic and hydroelectric),

which enabled it to avoid the emission of 1.7 million tonnes of  $CO_2$  into the atmosphere, thanks also to energy efficiency solutions, also thanks to energy efficiency solutions.

Edison's production park is made up of 107 hydroelectric power plants, 53 wind parks, 56 photovoltaic parks and 14 highly efficient combined-cycle gas turbine (CCGT) plants, which balance the intermittency of renewable sources.



Edison

Edison is the oldest energy company in Europe, with 140 years of record-breaking results, and one of the leading operators in Italy in the sectors of distribution, production and sale of electricity and natural gas and in the provision of energy and environmental services. The company is at the forefront of the energy transition, through the development of renewable and low-carbon generation, energy efficiency services and sustainable mobility, in line with the Italian Integrated National Energy and Climate Plan (PNIEC) and with the European Green Deal objectives. Edison has a highly flexible and efficient electricity generation fleet, comprised of 200 hydroelectric, wind, solar and natural gas combined cycle thermoelectric power plants. The Group's total net installed capacity is 7.2 GW. Today, Edison employs over 5,500 people in Italy and Europe.

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