

Press Release

***Magaldi unveils the first MGTES plant in Buccino: a new frontier in thermal energy storage for industrial decarbonisation***

**Buccino (SA), September 16, 2025** – The first MGTES (Magaldi Green Thermal Energy Storage) plant, developed by Magaldi Group in collaboration with Enel, was inaugurated today in the ASI industrial area of Buccino. It is the first fluidised sand thermal battery built in Italy and one of the first in the world to be applied to an industrial food context.

With a capacity of 7.5 MWh, the system reduces natural gas consumption, increases the flexibility of the electricity grid and cuts CO<sub>2</sub> emissions by over 500 tonnes per year, representing a concrete step towards energy transition. Thanks to this innovation, the food company I.GI. S.p.a. (vegetable oil refinery, supplier to the Ferrero Group) produces green steam at a temperature of 190°C 24 hours a day, 7 days a week, meeting approximately 15% of its thermal requirements and making a tangible contribution to the sustainability and competitiveness of the sector.

*"This achievement is a motive of pride not just for our Group, but for the entire country. Today, we are proving that Italian technological innovation can translate into concrete solutions for one of the most complex challenges of the energy transition: MGTES combines the intermittent production of renewable sources with the constant energy demand of industry, ensuring green thermal energy with continuity and reliability available 24/7, replacing methane gas,"* said **Cav. Mario Magaldi**, President of the Magaldi Group.

*"MGTES was created in response to one of the most pressing challenges of our time: the decarbonisation of medium- and high-temperature industrial processes. Industrial heat accounts for approximately 25% of global final energy demand and is still mainly supplied by natural gas. The sand battery is a unique technology: we are demonstrating that it is possible to replace fossil fuels with innovative, safe and scalable solutions that can support businesses in their transition to renewable energy while providing flexibility and stability for the electricity grid,"* said **Letizia Magaldi** and **Raffaello Magaldi**, Managing Directors of Magaldi Green Energy.

*"Today's inauguration is concrete proof of how innovation drives sustainable growth and competitiveness in Italy. At Enel, we firmly believe that the future of energy lies in pioneering solutions such as the technology developed with Magaldi, which is fundamental for the decarbonisation of industrial processes. The strategic partnership with a company of excellence*

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*such as the Magaldi Group shows that when key companies in our country join forces, the results can set new global standards. This synergy combines our commitment to the development of renewables with engineering of the highest level. Together, we are not only accelerating the energy transition in Italy, but we are also creating a virtuous model of technological “Made in Italy” to be exported as excellence around the world, consolidating Italian leadership in the field of clean technologies and paving the way for new development opportunities,” said **Nicola Rossi**, Head of Innovation at Enel.*

The inauguration ceremony began with institutional greetings and a high-profile discussion that focused on two key areas: the decarbonisation of Italian industry and the promotion of Italian-made technologies as levers for strengthening the country's competitiveness and leadership in the energy transition.

During the debate, it was pointed out that energy is a key factor in the competitiveness of companies, and therefore such innovations can be an effective response to support businesses in their decarbonisation efforts. This message was also echoed by Federalimentare, which stressed the need for stable industrial policies and concrete tools to facilitate the sector's transition. Legambiente's intervention was along the same lines, highlighting the value of projects such as the one in Buccino, which are capable of promoting the penetration of renewable sources into the energy system, reducing emissions and strengthening the sustainability of industrial sectors such as food, chemicals, pharmaceuticals and paper mills, with prospects for replication on a national and international scale.

Magaldi Green Thermal Energy Storage (MGTES) draws energy from the grid – from photovoltaic or wind power – and decouples the charging of electrical energy from the discharging of thermal energy thanks to storage, allowing energy to be accumulated independently of its use. It can also be integrated with cogeneration plants, increasing their flexibility and decoupling electricity generation from thermal generation. Thanks to its programmable load profile, MGTES can provide ancillary grid services, including grid frequency regulation, representing a resource of flexibility available to grid operators and industrial users.

The integrity of the supply chain is a pillar of Magaldi and Enel's commitment to environmental responsibility and the circular economy. The thermal battery is produced using abundant, affordable and fully recyclable materials, such as silica sand and steel, to ensure resilience, supply chain security, maximum resource efficiency and minimal environmental impact.

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At the institutional level, the message is clear: initiatives such as Magaldi's demonstrate that the energy transition can translate into industrial innovation, international competitiveness and new opportunities for local areas.

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