PRESS
RELEASE

ENEL AND BRENMILLER ENERGY INAUGURATE "TES", AN INNOVATIVE ROCK-BASED STORAGE SYSTEM IN TUSCANY, ITALY

- *The pilot is the result of the synergy between Enel and Brenmiller, applied for the first time in the world at the Santa Barbara power plant in Tuscany, Italy*
- *The technology allows energy to be stored as heat and makes the power plant more flexible, thanks to Brenmiller's innovative solution, with room to expand the decarbonization of industrial heating demand*

Rome/Cavriglia (Arezzo), November 4th, 2022 – The Enel Group and Brenmiller Energy Ltd. ("Brenmiller", "Brenmiller Energy"; TASE: BNRG, Nasdaq: BNRG), inaugurated today an innovative, sustainable energy storage system in Santa Barbara, Tuscany, in the municipality of Cavriglia (province of Arezzo), in the presence of the President of the Region of Tuscany Eugenio Giani, the Mayor of Cavriglia Leonardo Degl'Innocenti o Sanni, Ambassador-Designate of Israel to Italy Alon Bar, Head of Enel Green Power and Thermal Generation at Enel Salvatore Bernabei, Chief Innovability® Officer of Enel Ernesto Ciorra and Chairman and CEO of Brenmiller Energy, Avi Brenmiller.

The goal of this Thermal Energy Storage ("TES") project is to build an innovative thermal storage system in Santa Barbara, which is completely sustainable and capable of accelerating the energy transition. The integration of the TES system with the existing power plant enables Enel and Brenmiller to test the technology in the field, in challenging operating conditions and on a large scale. The system offers reduced power plant start-up times and greater speed in load variations, which are necessary performance requirements to enable the efficient use of renewable energy. The system can be used to store excess energy produced from renewable sources in the form of heat to offer decarbonization services to industrial customers and to integrate long-term storage solutions with renewable plants.

Brenmiller Energy developed the technology in Israel and supplied the storage system; Enel integrated the system with its Santa Barbara power plant and helped to validate its performance in a real environment.

The TES technology utilizes a two-stage charge and discharge process to provide thermal energy. During the charging phase, steam produced by the Santa Barbara facility passes through pipes to heat adjacent crushed rocks; during the discharging phase, the accumulated heat is released to heat pressurized water and generate steam for electricity. This first-of-its-kind TES system can store up to 24MWh of clean heat at a temperature of about 550°C for five hours, providing critical resiliency to the power plant.

"Flexibility and adequacy are two fundamental components of an efficient and reliable electricity system, which can be supplied more and more efficiently by storage," said **Salvatore Bernabei**, Head of Enel Green Power and Thermal Generation at Enel. *"This trial allows us to validate a family of innovative and sustainable technologies in the segment of long-term storage, which will allow for an ever greater integration of renewables into the grid."*

"This solution makes renewables more reliable, flexible and resilient and can be used to decarbonize sectors that need heat at high temperatures," said **Ernesto Ciorra**, Director of Innovability® of Enel. *"Furthermore, it does not involve any use of rare materials and can be made using stones available in every part of the planet, so it is scalable in a sustainable way everywhere. We thank the colleagues of the Tel Aviv hub for having found it and our Italian colleagues for having implemented it, thanks also to the financial support deriving from the collaboration between the Italian and Israeli governments."*

"*Our TES system at Enel's Santa Barbara power plant in Tuscany is the first-ever system of its kind to provide utility-scale thermal energy storage and offers commercial and industrial users a viable path towards decarbonization,"* said **Avi Brenmiller**, Chairman and CEO of Brenmiller Energy. *"The TES also makes it possible to add additional renewables to the grid with greater reliability. We believe the success of this moment reflects the types of innovative collaborations needed to transition the global economy away from its heavy, albeit lessening, dependence on fossil fuels, and towards a 100% clean, flexible, and affordable energy grid*."

Eugenio Giani, President of the Region of Tuscany, said: "*This inauguration confirms that Tuscany has a central role for energy, both for production and for innovation. Welcoming sustainability today means doing good for the environment, attracting investments and creating value, which is why we are particularly happy with Enel's choice to test here in Santa Barbara, which has always been a land of work and ingenuity, new technologies that can be applied on a scale. world. Tuscany is already one of the most virtuous Italian regions with over 50% of self-produced energy from renewable sources and an important research and innovation fabric, today we take a new step into the future with the hope that it will be a further contribution to overcome the energy crisis*."

"*Today we are celebrating a successful Italian-Israeli cooperation experience thanks to which Italy will benefit from an innovative made-in-Israel solution for energy storage*," said the Ambassador-Designate of Israel in Italy, **Alon Bar**. "*A technology that stands out in the international search for clean energy solutions to face the current global energy crisis. The Brenmiller Energy-Enel partnership takes the form of a continuation of the commitment made by the Israeli Embassy in promoting the collaboration protocol between the Israel Innovation Authority and Enel signed in 2015. This makes us particularly happy and enthusiastic in continuing to help these companies to thrive*."

The collaboration between Enel and Brenmiller came about as part of an Italian-Israeli collaboration protocol aimed at accelerating cooperation between Israeli companies and large Italian industries. The project was partly financed by the Israeli Innovation Authority, which supported Brenmiller with 1 million euros in financing.

About Enel

Enel, which celebrates its 60th anniversary this year, is a multinational power company and a leading integrated player in the global power and renewables markets. At global level, it is the largest renewable private player, the foremost network operator by number of end users and the biggest retail operator by customer base. The Group is the worldwide demand response leader and the largest European utility by ordinary EBITDA [1]. Enel is present in 30 countries worldwide, producing energy with around 92 GW of total capacity. Enel Grids, the Group's global business line dedicated to the management of the electricity distribution service worldwide, delivers electricity through a network of around 2.3 million kilometers to more than 75 million end users. The Group brings energy to around 70 million homes and businesses. Enel's renewables arm Enel Green Power has a total capacity of around 55 GW and a generation mix that includes wind, solar, geothermal, and hydroelectric power, as well as energy storage facilities, installed in Europe, the Americas, Africa, Asia, and Oceania. Enel X Global Retail, Enel's global business line active in the areas of energy supply and efficiency, has a total capacity of around 7.9 GW of demand response managed globally and has installed

62 MW of behind-the-meter storage capacity. In addition, Enel X Way is the Group's new company fully dedicated to electric mobility, managing more than 380,000 public and private EV charging points worldwide, both directly and through interoperability agreements.

[1] Enel's leadership in the different categories is defined by comparison with competitors' FY 2021 data. Publicly owned operators are not included.

About Brenmiller Energy Ltd.

Brenmiller Energy delivers scalable thermal energy storage solutions and services that allow customers to cost-effectively decarbonize their operations. Its patented bGen thermal storage technology enables the use of renewable energy resources, as well as waste heat, to heat crushed rocks to very high temperatures. They can then store this heat for minutes, hours, or even days before using it for industrial and power generation processes. With bGen, organizations have a way to use electricity, biomass and waste heat to generate the clean steam, hot water and hot air they need to mold plastic, process food and beverages, produce paper, manufacture chemicals and pharmaceuticals or drive steam turbines without burning fossil fuels. For more information visit the company's website at https://bren-energy.com/ and follow the company on Twitter and LinkedIn.

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