

ANALYSIS OF THE ITALIAN ENERGY STORAGE INDUSTRY



Does Italy need electricity storage? As Italy's energy mix is increasingly composed of variable renewable energy sources, electricity storage will be needed to integrate power generated by renewables into the national grid and make it available when sun and wind energy are not accessible.



Are battery energy storage systems needed in Italy? Therefore, battery energy storage systems (BESS) are needed in Italy. The Italian market for BESS is growing rapidly and currently amounts to 2.3 GW but it almost exclusively consists of residential scale systems, associated with small scale solar plants, having a capacity of less than 20 kWh.



How will Italy invest in electricity storage? Italy will promote investments in utility scale electricity storage to reach at least 70 GWh, and worth over Euro 17 bn, in the next ten years. The new storage capacity will be acquired through tenders published by Terna, the manager of Italy's high voltage grid. The next tender will be released in 2024.



Does Italy have a strong appetite for battery storage? Image: TERNA via Twitter. The success of an auction for fast reserve grid services held by Italy's transmission system operator (TSO) indicates a strong appetite for battery storage, but market rules and regulations need some revision to capture that opportunity.



Does Italy have a national energy and Climate Plan? To meet the European Union (EU)'s energy and climate greenhouse gas emissions targets by 2030, EU countries need to establish a 10-year integrated national energy and climate plan between 2021 and 2030. Italy has one in place called PNIEC.

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How did Italy reduce reliance on Russian natural gas imports in 2022? Italy in 2022 successfully reduced its reliance on Russian natural gas imports, by signing new contracts with alternative suppliers, making use of the pipeline and LNG infrastructure that it has built up over the last decade.



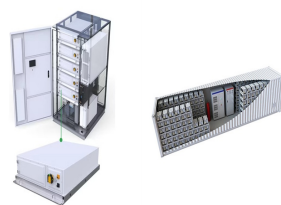
Italy Battery Energy Storage Industry Life Cycle; Historical Data and Forecast of Italy Battery Energy Storage Market Revenues & Volume By Type for the Period 2018 - 2028; 6.5.1 Overview and Analysis. 6.5.2 Italy Battery Energy Storage Market Revenues & Volume, By Small Scale (Less than 1 MW), 2018 - 2028F.



Figure: SGIP's Installed Capacity of Energy Storage in California (MW/MWh) U.S. Energy Storage The installed capacity of energy storage in the first quarter of 2023 surged to an impressive 792.3 MW/2144.5 MWh, according to data from Wood Mackenzie. This reflects a year-on-year increase of 6.1%.



In December 2023, the EU greenlit Italy's energy storage program, earmarking a hefty investment of ???17.7 billion. This initiative is anticipated to facilitate the construction of ???



Energy Balance: total and per energy. Italy Energy Prices: In addition to the analysis provided on the report we also provided a data set which includes historical details on the Italy energy prices for the follow items: price of premium gasoline (taxes incl.), price of diesel (taxes incl.), price of electricity in industry (taxes incl.), price

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The report provides Italy Battery Energy Storage Market size and demand forecast until 2027, including year-on-year (YoY) growth rates and CAGR. Battery Energy Storage Market Industry Analysis The report examines the critical elements of Battery Energy Storage industry supply chain, its structure, and participants Using Porter's five forces



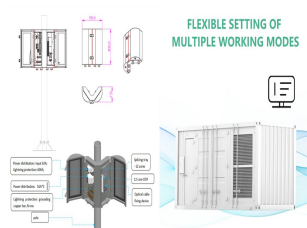
The European Union (EU) Commission has approved a state aid scheme aiming to fund the rollout of over 9GW/71GWh of energy storage in Italy. The scheme totalling ???17.7 billion (US\$19.5 billion) will provide annual payments covering investment and operating costs for those developing, building and operating large-scale energy storage in Italy.



Italy had 650,007 grid-connected energy storage systems at the end of June 2024, according to Italia Solare, with a total 4.5 GW of rated power. "During the first half of 2024, 126,916 storage systems were connected in Italy, with a total power of 1.05 GW and a capacity of 2.63 GWh," wrote Italia Solare, commenting on data from TSO Terna.



The National Energy and Climate Plan (NECP) plays a central role in achieving the European Union's climate targets and delivering Italy's contribution to the Paris Agreement. Moreover, Italy's Plan holds significant importance since, unlike many other EU Member States, the country lacks a Climate Law and thus it does not have a climate ???



Energy Storage Grand Challenge Energy Storage Market Report 2020 December 2020 Acknowledgments The Energy Storage Grand Challenge (ESGC) is a crosscutting effort managed by the U.S. Department of Energy's Research Technology Investment Committee. The Energy Storage Market Report was

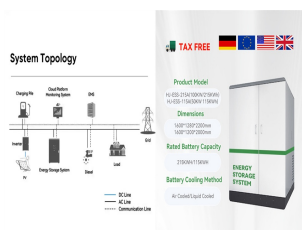
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- Analysis and key findings. A report by the International Energy Agency. Italy's energy sector is strongly reliant on fossil fuel imports from the Russian Federation (hereafter "Russia"), which in 2021 accounted for one third of total energy supply (TES) of fossil fuels. distribution and storage capacity. Italy is also



Regular insight and analysis of the industry's biggest developments; In-depth interviews with the industry's leading figures The report is a deep-dive into the suitability of different technologies for deploying the 71GWh of new large-scale energy storage that Terna forecasts Italy will need to decarbonise its energy system in a "Fit



Solar and storage installer Lemon Sistemi and investor Volt ESG have signed a deal to develop a battery energy storage system (BESS) project in Italy, the latest substantial BESS development in the country. Regular insight and analysis of the industry's biggest developments; In-depth interviews with the industry's leading figures;



Storage in Italy: Terna ??? Around Euro 200 mln invested (Regulatory Asset Base ???RAB) ??? Storage pilot projects - Terna spa 9 ??? Main target: contribution to grid security ??? Size [MW]: 16 MW ???



The new market rules will allow grid operator Terna to run large-scale energy storage auctions. Terna will now run a consultation with the industry on the proposed new auction system and the first auctions should take place in late 2023/early 2024, two developers interviewed for a special feature in PV Tech Power (Vol.35) (Premium access) recently told ???

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Matteo Coriglioni, head of Aurora Energy Research Italy, said official data showed that as of the end of March, Italy had approved more than 2GW of energy storage projects, with another 8GW in the approval process. Aurora Energy Research has a very broad pipeline of energy storage capacity, which is four times what has been approved.



The energy storage market in Italy doubled in capacity in the first half of the year, though Q2 saw the first slowdown in nine quarters and that could be repeated in H2, according to the country's renewable energy trade body. Regular insight and analysis of the industry's biggest developments; In-depth interviews with the industry's



This paper's findings indicate that energy storage is crucial for fully decarbonizing the Italian power sector by 2050 in the absence of a low-carbon baseload. Additionally, it suggests that approximately 10 % of Italy's electricity generation in 2050 should be routed through short-term energy storage devices.



Get the latest commodity news and analysis ??? instantly, effortlessly and reliably. ???Market actors predict growth in the Italian energy storage sector will be driven by the system balancing needs of the grid operator in the face of increasing renewable penetration and conventional plant closures. ENERGY STORAGE IN ITALY Figures by

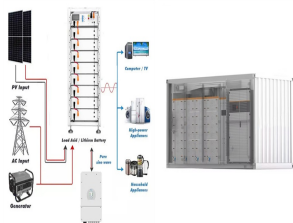


and aligning stakeholders across the energy industry to address the shared challenge of decarbonisation. I sincerely hope that the recommendations set out in this report will help Italy accelerate its energy system transformation while ensuring energy supplies remain affordable and secure. Dr. Fatih Birol . Executive Director

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See all Energy-Storage.news coverage of the market in Italy here. Energy-Storage.news" publisher Solar Media will host the 9th annual Energy Storage Summit EU in London, 21-22 February 2024. This year it is moving to a larger venue, bringing together Europe's leading investors, policymakers, developers, utilities, energy buyers and service



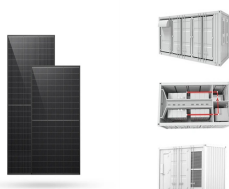
The growing attention towards environmental sustainability in the pharmaceutical industry and increased awareness of the potential for improving energy performance are justified by the fact that the sector is energy intensive. However, the variety of the processes and the lack of data about production and energy consumption make it difficult ???



Scenario analysis of the Italian energy system Gabriele Cassetti Oemof User meeting Magdeburg 08.05.2018. Model Italy 2013. 10 Electricity Heat Sabatier process H₂ Electrolysis P2G Hydrogen Methanol Methanol Thermal Energy Storage P2H: Power to Heat P2G: Power to Gas SNG: synthetic natural gas Synthetic liquid fuels.



Detailed market report on the Europe energy storage market, featuring industry analysis, size, and forecast from 2024 to 2029. 5.3.4 Italy. 5.3.5 Austria. 5.3.6 Switzerland. 5.3.7 Rest of Europe. 6. COMPETITIVE LANDSCAPE. Europe Energy Storage Industry Segmentation



A render of a battery storage project from Innovo Group, which has teamed up with Iberdrola to deploy large-scale solar, wind and storage in Italy. Image: Innovo Group. The grid-scale energy storage market in Italy is set to become one of the most active in Europe in the next few years having been close to non-existent until now.

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The unique feature of the Italian mechanism is that Terna (as system operator) will directly: Determine system storage capacity requirements (GWh) Tender for that capacity via auctions for long term contracted revenue support. Terna published its analysis of 2030 requirements for storage in 2022.



The Italy Solar Energy Market is expected to reach 34.64 gigawatt in 2024 and grow at a CAGR of 11.22% to reach 58.96 gigawatt by 2029. Gruppo STG S.r.l, Sonnedix Power Holdings Ltd, EF Solare Italia SpA, SunPower Corporation and Enel SpA are ???