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India Stationary Energy Storage Market is set to double its annual capacity additions before 2027

Pune India: India Energy Storage Alliance (IESA), India's leading alliance on energy storage & e-mobility is back again with its flagship report on the 6th edition of "Stationary Energy Storage Market Overview Report" for the India Market. The latest edition of the report provides an analysis of the market potential and market size of Stationary Energy Storage in applications such as renewable energy integration into the grid, Transmission & Distribution(T&D) deferral, ancillary services as well as in the Behind-the-Meter (BTM) applications from 2020 to 2027. In addition, the report covers top markets for this year. BTM applications include solar rooftop, inverters, diesel usage optimization, UPS, telecom, rural electrification, and thermal energy storage applications.

The market overview report estimates the energy storage market in India to be US \$2.1 billion in 2019 and forecasts a CAGR of 8% by 2027. The report has taken 2019 as the base year for the estimation and the forecast period considered for projections is 2020-27. In 2019, the market size shrunk to 21 GWh from 24GWh last year, primarily due to lower sales in the larger markets such as telecom and inverter batteries in 2018.

The report projections consist of base case, worst case, and best-case scenarios, wherein the base case assumes a Business as Usual (BAU) scenario with support from Ministry of New & Renewable Energy (MNRE) and other government institutions. The best case assumes more supportive policies, higher penetration rate of storage in grid scale projects, storage in providing ancillary services to grid, in distribution grid, and presently, unconventional Behind-the-meter applications such as diesel optimization, rooftop etc., to pick up at a CAGR of 14%. The worst-case scenario assumes a low growth of 2% in the market owing to the impact of COVID-19 pandemic and other reasons for delays in projects.

For the forecasted period, the top growing markets for ESS are renewable integration into the grid, diesel optimization, solar rooftop, and distribution utility scales storage. Renewable integration into the grid is slated to grow at CAGR of 32% by 2027 due to the focus on solar-wind hybrid tenders by Solar Energy Corporation of India (SECI) and other government agencies, due to high renewable target of 450 GW by 2030. Diesel optimization is a key sector on account of for diesel genset usage for more than 3-4 hours a day and is slated to grow at CAGR of 59% in short term till 2023, with a slower growth in long term at 30% till 2030 accounting for a more reliable national grid which may leave less scope for growth of backup market. For the rooftop solar market, a dip in GST from 28% to 5% has been a driver for the market, with analyses additionally showing that for solar resource-rich states like Maharashtra, Tamil Nadu, Karnataka, West Bengal, Assam, cost of rooftop solar with 50% storage system could meet grid parity by end of 2023. In the mid- to long-term, COVID-19 could negatively impact market growth, but towards 2027 the market is likely to be a strong supporter of energy storage technologies. Another top market for energy storage is Distribution Utility market, with top private DISCOMs such as BSES and TPDDL in Delhi already in different stages of Battery Energy Storage System (BESS) installations. The strain on DISCOM's due to a higher penetration of solar rooftop, EV charging stations, and ever-increasing C&I loads can be supported by energy storage technologies. This fact is likely to become more apparent in the long term with the market size potentially increasing to about 6 GWh in 2027.

The COVID 19 impact although will be visible on the rooftop solar, inverters, and diesel optimization markets, the markets are likely to recover after 2021, with all estimates for 2027 made in the report still holding good. Other markets such as telecom markets and UPS will have a medium impact due to COVID 19, owing to an increased use of electronic communication devices such as smart phones, laptops, and change in lifestyle owing to remote work.

The most popular battery technologies used for energy storage are flooded lead-acid batteries, valve regulated lead acid batteries (VRLA), lithium-ion batteries and other technologies such as flow batteries, thermal batteries etc. Our analyses show that the contribution of lead-acid batteries will reduce over the forecasted period with flooded lead-acid battery share going from 52% to 19%, and for valve-regulated lead-acid batteries reducing from 44% to 31%. At the same time, the penetration of lithium-ion batteries is projected to increase rapidly from 4% in 2019 to 45% in 2027 primarily due to the decreasing prices of lithium-ion battery systems. The share of other battery technologies, although still small, could also increase from less than 1% in 2019 to 5% in 2027.

For more information about this report visit- <https://indiaesa.info/resources/industry-reports/3106-india-stationary-energy-storage-market-overview-report-2020-2027>

About India Energy Storage Alliance (IESA):

India Energy Storage Alliance (IESA) is the premier alliance focused on the advancement of advanced energy storage and e-mobility technologies in India. The alliance was founded in 2012 by Customized Energy Solutions (CES). IESA's vision is to make India a global hub for R&D, manufacturing and adoption of advanced energy storage and e-mobility technologies. In the last eight years, IESA member circle has grown from 5 to 100+ members and covers verticals from Energy Storage & EV Manufacturers, Charging Infrastructure, Research institutes & universities, Renewable Energy companies, and Power electronics companies.

IESA website: www.indiaesa.info

Press Contact - India Energy Storage Alliance (IESA):

Swati Gantellu

Manager- Corporate Communications

Tel- 9168429492 | Email- sgantellu@ces-ltd.com