
Press Release

BSES commissions first-of-its-kind Urban Microgrid System in Delhi

Delhi Power Minister Inaugurates the Prestigious Project

- **Microgrid (Solar + Battery) in South Delhi is a part of the Indo-German Solar Partnership Project (IGSEP)**
- **Huge Benefits to consumers as the system is capable of ‘islanding’ and ensures continuous supply from PV solar and Battery Energy Storage**
- **Set-up at a cost of around Rs 5.5 crore, the Microgrid System is estimated to reduce ~ 115 tonnes of CO2 annually**

New Delhi, India (10 September 2021): Leading discoms from around the world are committed to sustainable growth and green energy sources. Their efforts include the deployment of Solar PV rooftop, Solar PV, Wind Parks, and other renewable energy sources, as well as Demand Side Management (DSM) with energy efficiency to optimally manage power demand, especially during peak hours. In partnership with leading national and international domain leaders, Reliance Infrastructure led BSES is spearheading these efforts in the national capital of India.

As part of their engagement, a first-of-its-kind Urban Microgrid System (Solar+ Battery) at the LV distribution network in Delhi has been set-up at Shivalik, Malviya Nagar. The micro-grid was inaugurated today by Mr. Satyendar Jain, Hon'ble Minister for Power, Government of New Delhi. Important dignitaries present included Justice Shabihul Hasnain Shastri (Chairperson, Delhi Electricity Regulatory Commission), Dr A.K. Ambasht (Member, DERC), Mr. Norbert Barthle & Ms Flachsbarth (Parliamentary State Secretaries, Federal Ministry of Economic Cooperation and Development, Government of Germany (BMZ), Dr Winfried Damm (Head of Energy, GIZ India) and Dr Julie Reviere (Country Director, GIZ India). Team of Reliance Infrastructure led BSES was represented by Mr. Amal Sinha (Director and Group CEO, BSES) and Mr. Rajesh Bansal (CEO, BSES Rajdhani Power Limited).

The project has been implemented under the umbrella of the Indo-German Solar Partnership Project (IGSEP), commissioned by the Federal Ministry for Economic Cooperation and Development (BMZ) that is contributing towards India's renewable energy goals. On behalf of the Federal Republic of Germany, the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, has signed an agreement with the Ministry of New and Renewable Energy (MNRE), Government of India. It has now partnered with Reliance Infrastructure led BSES Rajdhani Power Limited to set-up a first-of-its-kind Urban Microgrid System at the LV distribution network in Delhi.

Solar & BESS Microgrid at Shivalik

With the growing integration of renewable into conventional energy sources, microgrids will play a critical role in enabling the transition and increasing the reliability of the power supply. Set-up at a cost of around Rs 5.5 crore, the Microgrid, is a grid-connected system consisting of 100 KWp Solar PV and 466 kWh Lithium Ion Battery Energy Storage System (BESS).

It has several unique benefits, including: (i) reliable clean power-back for upto two hours;(ii) production of about 1.5 lakh units of clean energy per annum; (iii) offset of CO2 emissions of about 115 tons and avoidance of about 30 metric tons of coal; as well as (iv) smart use of space. The PV solar modules were installed on an elevated carport structure along with an electric vehicle charging station below.

Benefits for Consumers

Microgrids offer tremendous benefits to both consumers and discoms. The urban microgrids will significantly increase the reliability and flexibility of the distribution network. At the same time, consumers can avoid installing UPS systems/generators and receive green power. Solar power generated during the day will be fed to load and surpluses can be used to charge batteries. One of the greatest transformative benefits of a solar+ BESS urban microgrid applies to critical loads and establishments. It can operate in parallel and islanded mode, isolating operations from power disturbances or failures. Power outages for these loads can be prevented by an urban microgrid.

Commenting on the inauguration of Delhi's first LV micro-grid, a spokesperson of the Reliance Infrastructure led BSES stated: "BSES is committed to energy efficiency, adoption of green and new technology and smart procurement initiatives that will result in optimised solutions for our consumers. Commissioning of this microgrid is a major development that has the potential to be a game-changer in the power distribution sector."

"We thank MNRE, BMZ and GIZ for partnering with us in this strategic initiative. This collaboration brings together leaders in their respective domains and the resulting synergies are expected to benefit consumers in a big way. We expect these partnerships to provide us insights to deal with emerging challenges and capitalise on opportunities"- **added the spokesperson.**

The microgrid helps reduce the load on a transformer and relieves pressure on the low-voltage grid (by boosting the share of renewable energy), thereby increasing reliability and increasing flexibility. When a microgrid is deployed on a larger scale, it will become a cost-effective alternative for energy supply by reducing dependency on expensive and conventional power plants. They will also help increase the share of renewables, along with renewable power obligations (RPOs) for discoms.

Apart from improving system reliability and cost savings for the end user, Urban Microgrids of Solar PV + BESS are also beneficial for the environment. They can play a vital role in reducing diesel consumption and in deferring the consumer's investment in UPS / inverters.

BRPL & BYPL are premier power distribution companies and Joint Ventures between Reliance Infrastructure Limited and GoNCT Delhi.

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