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Press Release

## **BSES to further enhance operational efficiencies in partnership with Bidgely, a global leader in AI for utilities**

### **US headquartered Bidgely to share proprietary technology and global experience**

- **Partnership to benefit BSES consumers as Bidgely's Artificial Intelligence( AI) -based solutions drive efficiencies in:**
  - **AT & C loss-reduction**
  - **Optimized day ahead load-forecasting**
  - **Detection and profiling of EVs and rooftop solar for network planning & load shifting incentive design**
  - **Energy efficiency through customized energy saving insights for consumers**
- **Program to be first implemented in the identified areas of South and West Delhi**
- **Based on results, solution may be scaled-up & implemented in East & Central Delhi**
- **Enable BSES to leverage the U.S. headquartered Bidgely's proprietary technology, global**
- **experience and case learnings**

**New Delhi:** BSES has been at the forefront of driving energy efficiency, energy conservation and digital transformation by deploying emerging technologies. As part of these efforts, the Discom has signed a MoU with Bidgely, a global leader in artificial intelligence (AI)-powered solutions, for accelerating its transition towards a greener and digitalised future. Initially to be implemented in the identified BRPL areas of South and West Delhi, the program may also be rolled-out in East and Central Delhi depending on the results.

Under the MoU, BSES Rajdhani Power Limited (BRPL) and Bidgely will collaborate in the development and implementation of scalable AI-based solutions to enhance operational efficiencies in several areas including (i) AT & C loss reduction / power-theft detection, (ii) short-term load forecasting solutions based on historical time series data, weather and network related inputs, (iii) detection and profiling of electric vehicles (EV) and solar rooftop PV and (iv) energy efficiency through customised energy saving insights for consumers. It will also enable BRPL to leverage Bidgely's strengths and benefit from their global experience and expertise in these and related areas.

### **Benefits**

The partnership will help BSES to develop AI-based solutions for enhancing consumer engagement, reduction in AT & C losses, further optimization of power purchase costs and better planning of the distribution network. It will also help to develop tools for promotion of energy efficient appliances based on the energy consumption patterns of the consumers and disaggregation of consumer load at the appliance level.

**AT & C loss reduction (Power theft detection):** Though BSES has reduced its AT & C losses to a record level of ~7%, which is comparable with global levels, there are some pockets that still have power theft. The AI-enabled data analytics will be deployed in these areas for precise lead generation for theft detection, incorporating Bidgely's proprietary appliance electrical signature recognition algorithm. This will help in correlating the signature of an appliance and the power consumption of a consumer to detect any anomaly.

**Customized energy saving solutions for consumers:** The AI-enabled solution will also bring about energy savings for consumers. Using proprietary technologies, consumers will receive recommended energy saving solutions based on their energy consumption patterns.

**Load forecasting:** To meet today's dynamic power challenges, accurate demand (load) forecasting is critical for reliable power supply. Among other aspects, weather parameters like temperature, rainfall, wind speed, and humidity play an important role in accurate demand forecasts. Accurate medium term, day ahead and intra-day demand forecasting is vital for optimal and cost-effective power planning, ensuring reliable power supply to consumers.

To further assist BSES in this endeavor, Bidgely will develop and implement a short term (day ahead) AI & machine learning (ML) algorithm-based forecasting solution using historical time series demand data, weather and network related inputs. This will help in near accurate load forecasting through supervised and unsupervised ML algorithms. Moreover, Bidgely's solutions will complement the existing load-forecasting solutions deployed at BSES.

**Opportunities in detection of EV and solar loads:** AI and ML will be used to detect and quantify EV loads and rooftop solar generation. This will help in profiling target consumers to encourage adoption of EVs and rooftop solar, as well as facilitate design of Demand Side Management (DSM) programs for load shifting through customized incentive programs and efficient management of EV charging in relation to the distribution network.

**On partnering Bidgely, a BSES spokesperson said,** "BSES is committed to energy efficiency, adoption of green technologies and smart power procurement initiatives that will result in optimised solutions for us and our consumers. This association brings together two leaders in their respective domains and the resulting synergies are expected to benefit consumers in a more meaningful way, as also provide us insights to deal with emerging challenges as well as capitalise on opportunities."

"Reduction in T&D losses and power purchase costs ultimately benefits the consumers. Similarly promotion of energy efficient appliances and solar PV will help consumers manage their energy purchase costs better".

**According to Bidgely's Chief Revenue Officer, Gautam Aggarwal,** "Bidgely is honored to deploy its AI-powered solutions in ways that help BSES meaningfully connect with customers and prevent revenue losses associated with energy theft. With much of our workforce – including our data scientists and research and development teams – in India, we have deep knowledge not only of BSES' most pressing challenges but also the most effective ways to overcome them.

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

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