Itron Unveils Cutting-Edge Low Voltage Distributed Energy Resource Management System (LV DERMS) for Australian Market at Energy Networks 2024

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Itron LV DERMS to Deliver New Functionalities for Australian Utilities to Better Manage Generation Resources

LIBERTY LAKE, Wash.--(BUSINESS WIRE)--Mar. 19, 2024-- Itron, Inc. (NASDAQ: ITRI), which is innovating new ways for utilities and cities to manage energy and water, is unveiling its Low Voltage Distributed Energy Resource Management Solution (LV DERMS) for the Australian market at the Energy Networks Conference, taking place in Adelaide, Australia, from March 19-21, 2024. Itron's innovative solution delivers a unique, data-driven method for managing Consumer Energy Resources (CERs), such as rooftop solar or battery storage, while maintaining network stability within the low-voltage network.

Australia has over 30% rooftop solar penetration, an aggressive plan to reduce base-load coal and a growing interest in electric vehicles (EVs). The challenges of the coming energy transition will result in grid instability originating in the LV network, which must be addressed. The top-down model-based solutions that are commonly used to address this challenge do not provide the necessary information for balancing the changes CERs will cause in the LV network.

Itron's LV DERMS applies a bottom-up approach and, when integrated with existing back-office systems such as an advanced distribution management system (ADMS), it's designed to shift the planning and operating risks caused by CERs into opportunities, through the core and unique capabilities of the solution that include:

- **Centralised Control and Visibility** – Insight into the capabilities of CERs within the LV network and orchestration based on real-time understanding of state, forecast and constraints. Itron's LV DERMS can be scaled and adapted as the scale of CERs requires market reforms from emergency back stop mandates to adoption of non-wires alternatives applied across multiple market roles.
- **Dynamic System State Estimation (DSSE)** – Itron's LV DERMS solution uses GridQube's DSSE engine for the validation of LV topology and real-time calculation of constraints and Dynamic Operating Envelopes (DOEs). In contrast to power flow models, state estimation techniques are uniquely well suited to LV applications as they produce reliable results, in real-time, even in the face of imperfect hierarchy data.
- **State of the Art Forecasting** – The same Itron engines that today provide real-time operational forecasts for the National Energy Market and the Wholesale Electricity Market are used in Itron's LV DERMS to forecast from high-voltage to the premise and are applied to operations, DOE generation and scenario analysis.
- **Enhanced DOE Compliance Validation** – Itron's LV DERMS is uniquely able to validate premise-level DOE compliance in near real-time within constrained areas of the LV network.
- **Energy Market Participation** – Itron's LV DERMS provides a consistent single market-facing interface for:
    - Tracking standing aggregator relationships for all CERs to ensure accurate, near real-time publishing of DOEs to the market responsible participant. An extension of Itron's Australian Market Transaction System, Distributed Energy Resource Publisher provides tracking of standing aggregator relationships for all CERs and NMIs to ensure distribution of DOEs and other data to the appropriate responsible party.
    - Enabling the key interface for connecting to aggregators and CERs in real-time with a IEEE 2030.5 CSIP-AUS utility server that provides premise level messaging and reporting for field CER assets.
- **Proven Scalability** – Today, Itron's platforms regularly collect and process data from millions of LV network devices and CERs in a single instance. With this strong foundation, Itron's solutions can help utilities be well advanced in meeting the future scalability requirements in Australia towards full decarbonization.
- **Empowering LV DERMS with Distributed Intelligence** - As utilities progress toward full decarbonization, the number and variety of CERs is projected to increase dramatically. Native

integration to Itron's distributed intelligence platform enables LV DERMS to be pushed to the edge of the grid in a highly distributed architecture enabling autonomous control to balance the LV network cost efficiently.

"Australia's plan for decarbonization is unique in its heavy reliance on rooftop solar and the number of market participants that must be coordinated to make it work. As a company that spends time solving problems at the edge of the LV network, Itron has developed a unique set of capabilities to deliver increasingly real-time outcomes based on actual measurement data, to enable utilities to control and balance the LV network," said Paul Nelsen, vice president of Customer and Market Experience, APAC at Itron. "Over the past 20 years, Itron has worked closely with our utility customers to address several step-changes in scale and complexity driven by Australian market reforms. Itron's LV DERMS is specifically tailored to bring together the global and local technologies to address Australia's unique needs for CER optimization in the LV network."

To explore these solutions and to learn more about the LV DERMS or Distributed Intelligence for Australia, visit Itron in booth #81 at Energy Networks in Adelaide, Australia, from March 19-21, 2024.

About Itron

Itron is a proven global leader in energy, water, smart city, IIoT and intelligent infrastructure services. For utilities, cities and society, we build innovative systems, create new efficiencies, connect communities, encourage conservation and increase resourcefulness. By safeguarding our invaluable natural resources today and tomorrow, we improve the quality of life for people around the world. Join us: www.itron.com.

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