Webinar with Iberdrola: How Iberdrola's Load Flexibility and DERMS Support Spain's Push for 100% Renewables

Frequently Asked Questions

Q: Does Iberdrola have a DMS system? And how integrated is it to your DERMS??

A: There is a DMS in Iberdrola Networks. The regulator requires Iberdrola Networks to be a separate activity from Iberdrola Retail so at this time there is no connection between both systems.

Q: Does Iberdrola directly control the DERs or do you use aggregators?

A: Both. Depending on the device, connectivity and control could be direct or through an intermediate platform.

Q: How big of a challenge is it for Iberdrola to integrate the necessary IoT hardware into the customer’s assets to be able to maximize their flexibility? Do you think there will be in the future standalone businesses just for the integration part?

A: It is a key aspect. Connectivity and protocols differ widely between assets. An edge device may be needed sometimes to solve limitations.

Q: Does Iberdrola have a common protocol for all devices that allows price signals to be used to limit demand?

A: There is no such thing in Spain. Energy Management or Demand Response execution may vary between aggregators, devices, use cases, etc.

Q: How is Iberdrola planning to expand this from a pilot project to a program that many customers participate in? Will it be through incentives or opt-out?

A: For the residential customer we have recently launched the Advanced Smart Assistant. This service performs local optimization behind the meter, which is where the most value is created. The pilot developed in Flexener with AspenTech will allow us to create similar proposals in the C&I segment.

Q: Does the Virtual Power Plant (VPP) when offered at scale to the grid require meeting performance obligations such as the ability to ride through transient disturbances on the grid (e.g., Low Voltage Ride-through) so that the VPP can remain connected during the disturbance?

A: Individual DERs within the VPP are required to have ride through capabilities which will therefore allow the VPP to also ride through disturbances.

Q: What is the difference between DERMS and a VPP?

A: Integra DERMS is the overarching system that focuses on monitoring, forecasting and controlling DER. AspenTech views Virtual Power Plants (VPPs) as a logical group of Distributed Energy Resources (DERs) that are used to provide wholesale power market products like energy, capacity and ancillary services. Integra VPP is a component of Integra DERMS. It is designed to aggregate and present these special groups of DER as a single generating unit with the intent to interface with a market.

Q: Does DERMS include demand management and VPP only generation?

A: Yes, Integra DERMS supports demand management and VPP-only generation. Renewable and battery storage generation is not a requirement. These units can be modelled and monitored/controlled within the system.

Q: How is the solution addressing masked load/hidden load conditions?

A: For non-telemetered generation, Integra DERMS is designed to provide real-time estimation based on DER modelling and current weather conditions. In addition to estimating based on weather conditions, telemetered devices can be used as a bellwether device for nearby devices (scaling generation of nearby devices to match the % output of the telemetered device).

Q: Regarding external facing/market interfaces, how many market signals are incorporated into the DERMS currently? What challenges have you experienced in getting data from and to the markets?

A: Integra DERMS is designed to interface with a Generation Management System (GMS). Integration with AspenTech's GMS is native, but the tool was designed to be GMS agnostic. The VPPs are configured to look like any other generation unit to the GMS and be able to send and receive dispatch signals from the market.

Q: Can a utility integrate its DERMS with SCADA??

A: Integra DERMS is built on top of AspenTech OSI monarch SCADA platform. It is natively integrated with AspenTech's SCADA and can be sold as a standalone service and interface with third-party SCADA systems.

Q: How do you confirm that the dispatch of energy will take place to markets once the signal is given? Are there penalties for failing to dispatch? How is this built into the system?

A: Integra DERMS will continue to monitor VPPs after dispatch to ensure it is meeting the market signal. Penalties for non-complying DER would be handled during the settlement process outside of the DERMS environment.

Q: Is DERMS used for Capacity Markets?

A: Integra DERMS can be used in the capacity markets. Currently only energy imbalance markets have been used in production environments, but the tool is ready for any customer looking to interact with capacity markets.

Q: Are you familiar with IEEE 2030.11 DERMS?

A: Yes. Integra DERMS is compliant with this standard where it makes sense with the customer use cases.

Q: Is AspenTech available for utilities in the US?

A: AspenTech solutions are available globally. AspenTech is headquartered in the United States.

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