



Demand Response Can Play a Vital Role in Ensuring Grid Reliability and Dampening Price Volatility in Wholesale Electricity Markets

Reston, Va. – The [Energy Systems Integration Group \(ESIG\)](#) has released a new report, [Gaps, Barriers, and Solutions to Demand Response Participation in Wholesale Markets](#), examining why demand response participation remains limited in wholesale markets and proposing actionable solutions to unlock its full potential.

“Demand response has tremendous potential to help with long-term reliability needs as well as daily system balancing needs,” said Debra Lew, executive director of ESIG. “This study investigates why demand response today is not achieving that potential and what can be done to help fill these gaps.”

As the electricity grid transitions to accommodate more renewable energy and electrification, demand response can play a vital role in ensuring grid reliability and dampening price volatility in wholesale electricity markets. However, despite its recognized potential to help manage electricity demand, particularly during peak load periods, the actual deployment of demand response in wholesale electricity markets has stagnated or even declined in recent years.

The analysis draws from extensive interviews with industry stakeholders, including system operators, regulators, aggregators, and consumers, to identify five critical gaps that must be bridged to accelerate demand response deployment and targeted solutions to address each gap.

“With new load growth, plant retirements, and a changing resource mix, to manage cost and reliability it is important to look at all options on the table, including demand response,” said Derek Stenclik, lead author of the report. “But despite the promise of load flexibility, our research showed that demand response has been flat or even declining as a resource across much of the country. So we spoke to more than 20 leading experts in the demand response community to learn what they thought were the largest challenges facing demand response and developed a broad set of recommendations to unlock more of its potential.”

The analysis found that there were gaps in experience and knowledge across various stakeholders that was due in part to fragmentation and inconsistent market rules across the North American markets. According to many aggregators and technology providers, these challenges were amplified by onerous communication and metering rules, which served as another barrier to demand response participation. Capacity accreditation was also found to be a barrier, challenged by a lack of detailed, publicly available information on demand response performance during emergency events. Lastly, weak financial incentives further hinder demand response as a resource—driven in part by volatile capacity market prices, but also lack of time-varying electricity rates and utility rate recovery mechanisms that could support demand

response investments.

ESIG is a nonprofit organization that marshals the expertise of the electricity industry's technical community to support grid transformation and energy systems integration and operation. The report and executive summary can be downloaded at <https://www.esig.energy/demand-response-in-wholesale-markets/>.

###

Media Contact:

Lacey Jamison, ESIG Assistant Director of Marketing

(615) 478-1639

lacey@esig.energy