

Thought Leaders Speak Out 2025

ENGAGING CUSTOMERS WITH TECHNOLOGY

Key Takeaways: Achieving Load Flexibility thru Multi-DER Strategy

A Fireside Chat with Alliant Energy and Uplight
(April 2025)

The Institute for Electric Innovation (IEI)'s ***Thought Leaders Speak Out 2025: Engaging Customers with Technology*** series brings together electric companies to share successful technology implementations advancing customer and grid solutions.

In April, IEI brought together Alliant Energy and Uplight to explore their collaborative efforts addressing unprecedented load growth from data centers and economy-wide electrification. The dialogue featured a discussion with Raja Sundararajan, EVP, Strategy and Customer Solutions, Alliant Energy and Hannah Bascom, Chief Growth Officer, Uplight. Adam Cooper from IEI welcomed attendees, with Dave Hutchens, President and CEO of Fortis, Inc. moderated this insightful discussion.

Navigating Unprecedented Load Growth

“It's always about efficiency and affordability for our customers. We need to think about how we can leverage energy demand and existing infrastructure to serve data centers, manufacturing, and more.”

- Dave Hutchens, President and CEO of Fortis, Inc.

- The electric power industry is experiencing a transformative shift after decades of flat demand. Alliant Energy exemplifies this transition, with two new data centers totaling 1 GW expected in its Iowa service territory by 2028
- According to the International Energy Agency, AI-focused data centers today consume as much electricity as 100,000 households, with the largest under construction projected to use 20 times that amount. In the United States alone, data centers are expected to drive nearly half of the growth in electricity demand through 2030.¹

¹ <https://www.iea.org/news/ai-is-set-to-drive-surging-electricity-demand-from-data-centres-while-offering-the-potential-to-transform-how-the-energy-sector-works>

Strategic Integration of Demand-Side Resources

“Electric companies already have all of the tools at their disposal, and putting them together, can amount to tremendous resources that can be reliable part of the supply stack.”

-Hannah Bascom, Chief Growth Officer, Uplight

- While data center load is growing rapidly, building traditional infrastructure (e.g., new generation and transmission) remains time-intensive. Demand-side management (DSM) offers the lowest cost solution available today to help meet the load growth.
- Unlocking DSM’s full potential requires integrating multiple customer focused programs to form a “demand stack”. Alliant Energy & Uplight are working together to assemble and orchestrate demand-side resource value for customers and the grid:
 - **Energy efficiency** serves as a baseload resource, steadily reducing daily consumption.
 - **Time-varying rates** function as mid-merit resources, actively shaping daily load patterns.
 - **Demand response** operates as a peaking resource, providing critical relief during high demand periods.
- Uplight highlights that the current cost-effectiveness test significantly undervalues the true potential of DSM resources.

“We look at the measure of net Cost of New Entry (CONE) to determine which physical assets to build. We treat virtual assets in a similar way. As inflation goes up, net CONE value goes up automatically. It sends the right economic signal to justify the value of DSM resources.”

-Raja Sundararajan, EVP, Strategy and Customer Solutions, Alliant Energy

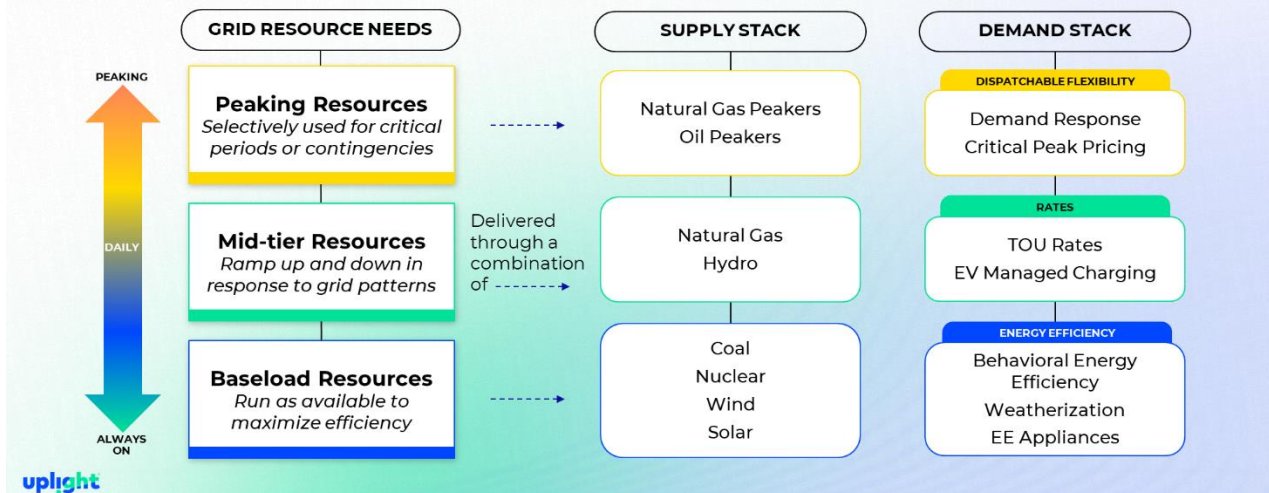
- Alliant Energy currently manages 300 megawatts of demand response resources and plans to add another 300 megawatts in Iowa. The company strategically evaluates demand side resources alongside physical assets in their resource planning, recognizing their value as a natural hedge for rising capacity prices. Key achievements include:
 - Leveling the playing field by establishing incentives for commercial and industrial (C&I) demand response participation in Iowa at full Cost of New Entry (CONE) value.
 - Achieving 1.2 -1.4 kW average load reduction per residential customer participant in both Iowa and Wisconsin by identifying a 2-hour window that drives the most grid value.
- Alliant Energy is leaning into the opportunities presented from increasing data center demand. Data centers can be a significant source of funding for DSM programs, with the resulting benefits distributed across the broader customer base.

- Uplight reflects on the growing interest in virtual power plants (VPPs) across the industry. VPPs act as “Swiss Army knives”, offering multiple benefits from peak load reduction to renewable energy integration. Starting with a clear goal and strategically selecting resources to include in the VPP and properly incenting customers is key for success.

Driving Customer Participation through Tailored Solutions.

- Customer engagement strategies must account for fundamental differences between segments:
 - **C&I customers** typically make quick decisions to enroll or exit based on financial considerations.
 - **Residential customers** tend to remain in the program once enrolled, offering long-term value and justifying the trade-off in economies of scale for customer stickiness.
- Effective residential participation in DSM programs lies in delivering a seamless, connected experience across offerings. Digital education proves particularly valuable in communicating program benefits and driving participation:
 - Customers receiving electronic home energy reports via email are **four times more likely** to enroll in demand response program.
 - These engaged customers are **2.5 times more likely** to purchase a pre-enrolled device through an Energy Marketplace, such as a smart thermostat, and participate in demand response.
- Customer satisfaction remains paramount, requiring both frictionless experiences and empowerment options. Alliant Energy supports diverse customer preferences through a combination of enrollment strategies, including auto-enrollment and opt-in options, offering both convenience and choice.

Demand Stack: A coordinated strategy that serves both customer needs and grid requirements



The Demand Stack

A unified framework for integrating DSM initiatives with unique cost profiles and operational characteristics into a cohesive resource

