3 ways to expand your DR portfolio

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Is your current demand-response (DR) program up to the challenge of meeting increasing grid variability? We've pulled together three ways to expand your DR portfolio so that it's working to its fullest potential. Catch up on the basics of DR in our Ask E Source answer What are the fundamentals of demand response?

1. Add new sectors

Traditionally, DR programs have focused on controlling air conditioners or water heaters in single-family homes or controlling HVAC and other loads in commercial facilities. Don't rule out bringing your programs to the small and midsize business (SMB) and multifamily sectors too.

SMBs. Small businesses are always looking for ways to save operating costs in their facilities. Utilities such as Austin Energy, Xcel Energy, and PG&E have been offering smart thermostats to this sector for years. And according to the 2020 E Source Small and Midsize Business Customer Satisfaction Study, SMB customers are more interested than ever in participating in DR or load reduction programs. SMB interest in DR programs increased by 22 percentage points compared with 2019.

This is an opportune time to make sure your SMB customers are aware of any DR offerings available to them. Read more about SMB demand-side management (DSM) programs in our blog How small business DSM programs are responding to COVID-19.

Multifamily properties. Utilities have struggled to offer multifamily DR programs because of various obstacles, including tenant turnover and the fact that property owners can control tenants' energy decisions. Several utilities saw recent success with this sector by offering incentives directly to property owners and by providing smart thermostats that communicate via mesh network.

For example, Austin Energy's Power Partner Thermostats saw a 90% increase in program participation because of the inclusion of smart thermostats. It was a welcomed opportunity for tenants to get new technology into their units to save energy.

2. Manage new loads

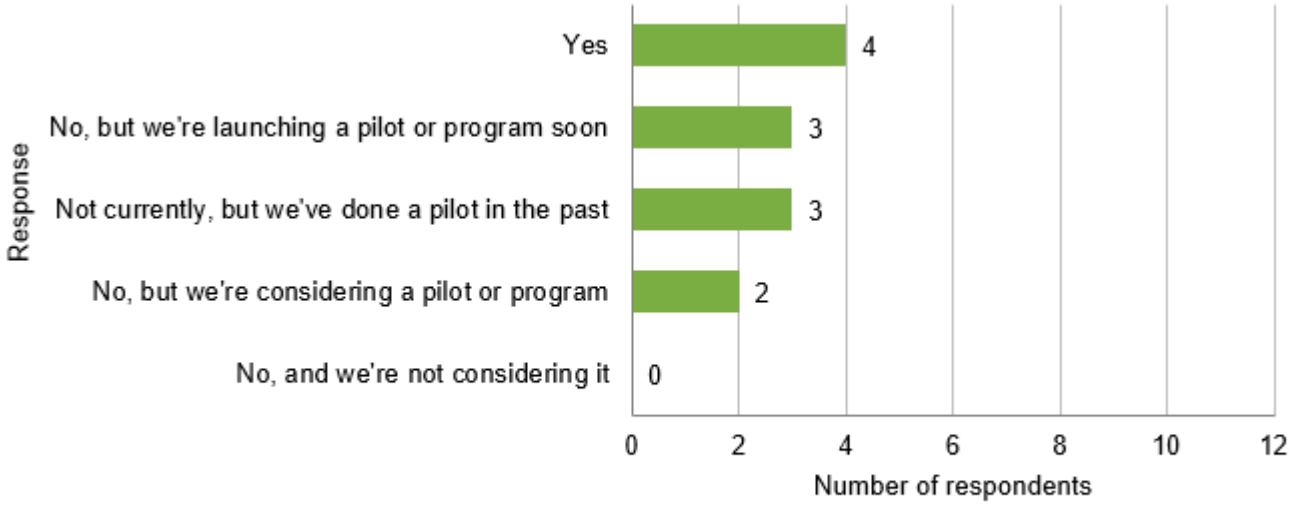
DR programs have mostly focused on summer-peaking electric loads. But that's now expanding to gas

utilities and to winter-peaking or dual-peaking utilities.

Gas DR. Though gas DR programs have the potential to improve reliability and defer gas infrastructure investments, utilities are still figuring out how to roll out DR programs since gas peaks usually lasting an entire day. SoCalGas has been fine-tuning a DR program that launched as a result of potential pipeline outages and supply limitations on peak demand days in the winter.

In the program's more-recent seasons (2018–2019), SoCalGas began to see substantial daily savings—reduced consumption of around 2% for all participants. You can read more about SoCalGas's program in California Measurement Advisory Council study 2018–2019 Winter Load Impact Evaluation of SoCalGas Smart Therm Program (PDF).

Winter DR. We're seeing an increased utility interest in winter grid flexibility from DR. During an E Source residential DR exchange, we asked attendees if their utility had winter DR events in place. Most attendees said their utilities already have programs in place, are launching them soon, or are considering them.



Base: Event attendees who answered the question (n = 12). **Question:** Does your utility currently call winter demand response events for residential customers? **Notes:** Use caution when sample size falls below 30. © E Source

Several utilities are using behavioral strategies, such as peak-time rebates or critical peak pricing. For example, Hydro-Québec is offering its customers a residential dual-energy rate. It's also exploring adding thermal storage and incentives for ECOPEAK water heaters and line voltage thermostats to control baseboard heating.

Additional measures. You can see the measures other jurisdictions are including in DR programs through E Source Measure Insights—our tool that compiles measure-specific data from DSM technical reference manuals (TRMs) into a structured database. For example, the Massachusetts TRM provides savings calculations for a variety of measures beyond direct load control, including behavioral DR, storage systems, and electric vehicle load management.

We've been tracking how utilities are using behind-the-meter devices in conjunction with new rate designs, including:

- Bundling time-based pricing with smart devices

- Emerging standards for demand-flexible appliances
- Getting demand savings from residential battery owners
- Using reverse DR to absorb excess renewable generation

You can learn more in our report From direct load control to flexible grid management: The evolution of demand response.

3. Target the right participants

What if you could make your DR program outreach more cost-effective by targeting only the customers with the highest-anticipated program engagement? Through E Source OneInform, you can do just that.

By providing a deep understanding of each individual customer, OneInform facilitates the development of the customer programs required for an evolving distributed grid. Our industry-leading machine-learning product suite combines hundreds of unique data points, starting at the smart meter level, and uses proprietary algorithms to help you identify the right programs for the right customers, simulate program and grid impacts, craft the appropriate messaging to cause individuals to engage, and implement automation to continuously improve your efforts.

Ready to take the next step with OneInform?

Want to talk with a member of our engagement team to learn how to use your E Source membership to maximize DR at your utility?

Send us a message today!

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