

Introduction

Public Service Company of Colorado, doing business as Xcel Energy (the “Company” or “Xcel Energy”), is seeking ideas for new Demand Response (“DR”) offerings. This RFI is part of the comprehensive settlement agreement (“Settlement Agreement”) in Proceeding Number 22A-0315EG, the Company’s 2023 Demand Side Management and Beneficial Electrification Plan.

As stated in the Settlement Agreement:

The Company agrees to initiate an RFI in the first half of 2023 to solicit ideas from vendors for new Demand Response offerings that achieve peak demand reduction by residential customers with advanced meters through a pay-for-performance, technology neutral approach. If the RFP responses indicate potential that will reasonably lead to a cost-effective offering, the Company agrees to design one or more products or pilot that would be included in the 2024-2025 DSM Plan.

The Company, in agreement with the other settling parties, further expanded the scope of this RFI to include gas DR ideas with the caveat that the Company does not have advanced gas meters and is not specifically seeking ideas that utilize advanced gas meters.

Electric Demand Response Background

Xcel Energy currently offers a robust suite of demand management programs with over 500 MW under control today. For background on the programs currently offered please see the list below with further details in our [2023 Colorado Demand-Side Management and Beneficial Electrification Plan](#), the [2021-2023 Transportation Electrification Plan](#), or the [2022-2025 Renewable Energy Compliance Plan](#). To complement this existing suite of programs, Xcel Energy is seeking ideas or proposals for new programs or incremental additions to existing electric demand management programs, offerings, or pilots including those that seek to leverage the Company’s advanced metering infrastructure. Advanced metering is currently available in the residential market, and this is the primary focus of this RFI, but with advanced commercial meters coming to market in the future ideas for both segments will be accepted. The Company is taking a technology-neutral, pay-for-performance approach and is open to a variety of proposals including those for aggregation, virtual power plants, and direct load control. However, should your proposal be in an earlier stage and not ready for full commercial deployment the Company is interested in receiving innovative or new ideas for demand management and partnering with third parties to develop those ideas.

Xcel Energy currently offers the following Residential DR programs:

- Saver’s Switch – Program designed to reduce AC loads by cycling AC off and on during peak hours.
- AC Rewards – Smart thermostat program that adjusts participant’s thermostat set points on hot summer days to reduce AC usage during peak hours.
- Smart Water Heater Program – Water heating is shifted away from daily peaks and will not heat additional water during peak times.
- Optimize Your Charge – EV charging program that charges EVs during off-peak hours.
- Charging Perks – Dynamic EV managed charging pilot.

- Battery Connect Pilot – Residential battery storage is integrated with the grid so that it can discharge stored energy during peak demand and charge the batteries during low demand.
- Behavioral Demand Response – Customers are notified ahead of peak load days and reminded of ways to reduce peak load usage.
- Renewable Battery Connect – Builds on the Battery Connect Pilot, targeting customers pairing storage with solar installations to ensure batteries are charged 100% by onsite PV systems.

Xcel Energy currently offers the following Commercial DR programs:

- Peak Partner Rewards – Partners earn incentives for committing to shedding kW during events.
- Critical Peak Pricing – Participants receive a price signal ahead of events to encourage reduced energy use.
- Interruptible Service Option Credit – Participants receive incentives for allowing Xcel Energy to directly control load during peak times
- Peak Day Partners – Participants receive an offer from Xcel Energy for load shedding, which they can accept, reject, or counter.
- AC Rewards for Business - Smart thermostat program that adjusts participants' thermostat set points on hot summer days to reduce AC usage during peak hours.

This request provides additional program requirements, how to submit, and a timeline for submission to this DR program idea request. Multiple ideas can be submitted by a single submitter, organization, or organizations, but each idea must be submitted separately. After collecting and evaluating ideas in response to this RFI for, including but not limited to, product effectiveness, portfolio fit, capacity potential, and customer experience; Xcel Energy may proceed with an RFP to solicit more detailed information for an idea or ideas that also meet all requirements outlined below.

Gas Demand Response Background

Currently, the Company has no gas DR programs but is operating a thermostat control based study within its service territory to explore how residential gas DR can be utilized to manage gas system peak events. As part of this RFI, the Company is seeking additional ideas for gas DR that can be utilized to manage the gas distribution system including in constrained areas such as the Company's mountain service territory.¹ As noted above, the Company does not have advanced meters for gas customers and is not requiring ideas to utilize advanced meter technologies. Ideas at any stage of development – i.e., demonstration, pilot, commercial deployment – are welcomed and the Company will consider technology neutral, pay-for-performance proposals. Gas DR ideas that are offered in combination with electric DR will be accepted as well so long as the requirements of the electric DR RFI are met.

¹ This territory includes the counties of Alamosa, Archuleta, Boulder, Chaffee, Clear Creek, Conejos, Eagle, Garfield, Grand, Gunnison, La Plata, Lake, Mesa, Rio Blanco, Saguache, and Summit.

Program Requirements

In item 34 of the Settlement Agreement (and referenced above), Xcel Energy agreed to initiate an RFI in the first half of 2023 to solicit ideas from vendors for new DR offerings. These offerings must meet the following requirements:

- Target customers with advanced meters (advanced meters apply only to electric programs).
 - Xcel Energy predicts that approximately 1.2 million residential advanced meters will be installed in Colorado by the end of 2024.
 - Xcel Energy currently serves approximately 1.4 million residential electric customers in CO.
 - Advanced meters are currently limited to residential customers, but commercial meters will be available in the future and commercial program ideas will be accepted.
- Achieve electric, gas, or a combination of electric and gas peak demand reduction.
- Take a technology neutral approach.
 - Offerings must be available to the majority of customers regardless of their selection of product brands when multiple options are available. For example, if the offering requires a smart phone, it must be available to customers of both Apple and Android operating systems.
- Reward customers through a pay-for-performance approach.

Submissions that meet all requirements as described and in a cost-effective manner may be considered for an RFP, as described above, with the possibility of a pilot or inclusion in the Company's next Demand-Side Management and Beneficial Electrification Plan, which is expected to be active in the first half of 2024.

Submission Requirements

To submit an idea, complete the attached program idea form with as much information as possible. The completed form should address all the following topics:

- How each idea meets all program requirements as stated above.
- Any requirements for associated hardware, software, or other technologies the customer must have or must purchase.
- Communication or control methods used for event dispatching.
 - What equipment is used for communication on both ends of the dispatch?
 - What data/information is sent, who sends that data/information, and is any information returned from the customer?
 - How are signals sent and received?
 - Who has control over equipment settings?
 - Control Strategies for end-use load.
- Security measures to protect user data must be explained.
- Participant enrollment procedures, requirements, options, and incentives.

- Any participant actions that may be required during an individual event.
- Override abilities that the participant will have during individual events.
- The impact of overrides on participants and any rules governing them for individual events and the overall program.
- Requirements for new equipment, technology, etc. for Xcel Energy to be able to implement the program.
- Participation and load reduction forecasts.
- Any benefits to the participant beyond energy savings.
- Any other utilities currently using this program or a similar program.
- Any history of successful program implementation with Xcel Energy or other utilities.

After completing the submission form, return the form and any supporting materials to Stephen.A.Mullaly@XcelEnergy.com.

Any questions may be asked during the “Question Period” of the RFI schedule and will be answered July 14, per the RFI schedule below. Questions should be sent to Stephen Mullaly at Stephen.A.Mullaly@XcelEnergy.com. All anonymized questions and Xcel Energy responses will be shared with all prospective bidders.

Schedule

Activity	Target Completion Date
Xcel Energy Issues RFI	June 26, 2023
Question Period	June 26 – July 7, 2023
Xcel Energy Issues Question Responses	July 14, 2023
RFI Response Due	July 28, 2023
Xcel Energy Review Period	July 31 – August 11, 2023
Decision to pursue RFP	August 18, 2023

Colorado Demand Response Idea Submission Form

Contact information

Name/Names

Company/Companies

Phone

Email

Demand Response Idea information

Demand Response Idea name

Demand Response Category (Electric, Gas, Combination)

Demand Response Idea description.

What is the primary customer segment that your idea is applicable to?

What is the primary end use that this idea is applicable to and how will it reduce peak demand?

Describe the market intervention approach of your idea and how Pay-for-Performance is incorporated.

Describe any equipment, hardware, software, or any other technologies the customer must have or purchase to participate, and address if they are commercially available.

Describe the communication or control methods used for event dispatching. This should include equipment used for communication on both ends of the dispatch, what is sent, received, and stored on both ends, who has control over settings, control strategies for end-use load, etc.

Describe all security measures to protect user data.

Please describe the customer enrollment procedures, requirements, and options for participation.

Are there any actions that a participant must take before or during an individual event?	
Describe the override abilities, if any, that the participant will have during an individual event.	
Describe the impact of overrides for the participant and for the overall program. Will there be any rules governing overrides for individual events or the overall program?	
Describe any requirements for Xcel Energy to implement this program, including new equipment, software, technology, etc.	
What is the estimated annual peak energy demand reduction associated with this idea, and is this a net energy reduction, increase, or neutral? (Please note if this is per unit, per customer, market size or something else.)	
Peak Demand Reduction - kilowatts (kW)	
Peak Energy Shifted - kilowatt-hours (kWh)	
Peak Gas Reduction – Dekatherms (Dth)	
How many participants do you anticipate per year?	
What are expected program costs (\$/kW), if known?	
Describe any benefits and/or features beyond energy savings.	
Is this idea being used by other utilities? If so, which utilities? Please provide Web links if possible.	
Have you developed any other utility programs? What were they, and with which utilities?	
Additional Comments	
Please list any attachments that are being submitted along with this form	

Disclaimer/Waiver	
<p>As part of this idea submission process, the Company will not accept any confidential information. Therefore, all information submitted by you to the Company using this form, or otherwise disclosed orally or in writing by you to Company, regardless of whether it is marked or identified as confidential or proprietary, will not be considered confidential, and the Company will have no obligation to keep any such information confidential or to follow any restriction regarding the use by it of such information. Moreover, you hereby waive any claims against Company for breach of confidentiality, trade secrets misappropriation, ownership rights in any product or program implemented by Company incorporating your ideas or information, or rights to be remunerated therefore. You are advised to carefully consider these requirements and to only submit information to the Company that respondents do not want to be kept confidential or secret.</p>	
<p>Respondents are encouraged to identify and describe any patent, copyright, or other proprietary rights that you or others may possess protecting any aspects of your proposed idea and any restrictions that may affect the Company's implementation of the idea. If your idea is selected for implementation, then you should also be prepared to contract with the Company regarding the transfer of any background proprietary rights related to the idea to the Company.</p>	
Thank You!	