



Q4 – 2023 COLORADO DSM ROUNDTABLE

February 14th, 2024



AGENDA

- 1:00 p.m. Welcome and DSM Regulatory Updates
- 1:10 p.m. Q4 Achievements Update
- 1:20 p.m. BE Performance
- 1:30 p.m. IQ/DI Outreach and Engagement
- 1:40 p.m. Potential Study Stakeholder Engagement
- 1:55 p.m. RFP Updates
- 2:05 p.m. Virtual Power Plants
- 2:20 p.m. BREAK
- 2:35 p.m. Natural Gas Demand Response
- 2:50 p.m. New Products
- 3:10 p.m. Year-End Evaluation Summary (Residential)



DSM REGULATORY UPDATES

Q4 – 2023

Gina Gargano-Amari | DSM Regulatory



Q4 60-Day Notices

2023 DSM/BE Plan Settlement

- Residential Heating & Cooling
 - Notification Date (October 4, 2023)
 - Implementation Date (November 4, 2023)

- Business HVAC+R Systems Update
 - Notification Date (October 24, 2023)
 - Implementation Date (November 28, 2023)

DSM Regulatory Calendar

Clean Heat Plan

- Rebuttal Testimony – February 26
- Hearing – March 11-15

2023 DSM Status Report

- March 29

Barriers to BE

- Study Complete – March

2024-2026 DSM BE Plan

- Answer Testimony – March 22
- Rebuttal Testimony – April 19
- Settlement Agreement/Stipulations – April 29
- Settlement Testimony – May 3
- Evidentiary Hearing – May 13-17
- Statements of Position – June 14

DSM Regulatory Calendar

Upcoming Meetings – Save the Date!

- Q1 - 2024 DSM Roundtable: May 8th, 2024
- Q2 - 2024 DSM Roundtable: August 14th, 2024
- Potential Study Working Group Kickoff: March 8th, 2024 11:30am-1:00pm

A photograph of a modern Xcel Energy building with a blue and yellow facade, viewed from a low angle looking up. The building's name and logo are visible on the upper part of the structure.

DSM ACHIEVEMENT UPDATE

Q4 – 2023

Mark Schoenheider | Manager Customer Energy Solutions

Michelle Beaudoin | Manager Product Portfolio Supervisor



2023 Q4 Achievement Highlights

Electric Portfolio

- 510 GWh (107% of 487 GWh Target)
- 104 MW (104% of 100 MW Target)
- \$93M (100% of \$93M Budget)

Business Programs

- 340 GWh (95% of Target)
- Strategic Energy Management 62 GWh (93%)
- Lighting Efficiency 134 GWh (137%)
- Business Energy Assessments 55 GWh (405%)

Residential / IQ Programs

- 170 GWh (135% of Target)
- Home Lighting & Recycling 69 GWh (250%)
- IQ Single Family Weatherization 34 GWh (146%)
- Residential Heating & Cooling 6.2 GWh (103%)

Gas Portfolio

- 917,014 Net Dth (110% of 832,725 Target*, 102% of 898,487)
- \$21.8M Spend (105% of \$20.7M Budget*, 87% of \$25M)

Business Programs

- 73,577 Net Dth (46% of 2023 plan target)
- New Construction 51,618 Dth (52% of target)
- Business HVAC+R Systems 12,804 Dth (36% of target)
- Business Energy Assessments 5,422 Dth (129% of target)

Residential / IQ Programs

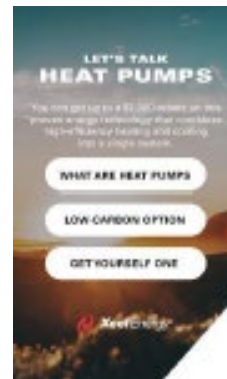
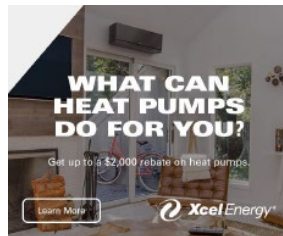
- 843,437 Net Dth (113% of target)
- ENERGY STAR Homes 102,723 Dth (67% of target)
- Residential Heating & Cooling 258,469 Dth (149% of target)
- Insulation & Air Sealing 34,768 Dth (154% of target)
- Home Energy Insights 72,910 Dth (53% of target)

Marketing Campaigns & Trade Relations Outreach

Residential

Customer Outreach

- IQ – EOC continued text reminders, leave behind energy tips, surveys, and training across programming.
- Emails – TOU outreach directing customers to storefront
- Emails – Black Friday/Cyber Monday Xcel Energy Online Marketplace
- Onserts – MFBE and SBES
- Paid Media - Heat Pump awareness
- Geo Targeted Email Campaign – Heat Pump and Electrification focused
- Mass marketing – Payment Options & Managing higher energy costs, Home Energy Squad
- Apogee videos – online store, heating, Home Energy Squad
- Emails – promoting free Home Energy Squad visits
- Home Energy Reports promoting Home Energy Squad, Showerhead Kits, and Lighting
- Digital display – directing customers to the program website where they can find information on Energy Star New Homes builders
- Email, postcard, social campaign – Offered free energy engagement kits to distressed middle income customers which included a showerhead, LEDs, foam gaskets and an aerator
- Emails, Direct Mail – Offering free energy savings kits to income qualified customers which included a showerhead, a kitchen sink aerator, a bathroom sink aerator, LEDs, and a night light
- Direct mail – showerhead/aerator kits for market rate customers



Trade Ally/Stakeholder Outreach

- Email explaining rebate changes effective January 1, 2024
- Participation/collaboration with CEO, EEBC, City and County of Denver and Boulder, other utilities
- BPI and heat pump workforce development meetings – ongoing
- Fall heat pump training (delivered October 11-12)
- Fall Whole Home Efficiency contractor training (delivered October 17)

Partners in Energy Co-branded Outreach

- Broomfield – continue to provide monthly newsletter content and social media posts to promote conservation. Business outreach brochure (Spanish and English)
- Arvada – Business website content, social media content
- Windsor – Non-Profit Resources Flyer, Social media and Newsletter content.
- Northglenn – Business & residential Newsletters, social media content, workforce content.
- Salida – Residential flyer
- Thornton – social media content
- Frisco – Residential social media content & business newsletter content
- Edgewater – EV resources for homeowners flyer, utility bill insert (English and Spanish)

Marketing Campaigns & Trade Relations Outreach

Business

CO HVACR Program Changes Announced to the Trade

- Heat Pump, VRF, Dual Fuel Prescriptive launch; Midstream pass-through incentives; Changes to RTU qualification 1-1-24
- Trade Partner virtual workshops for October 11th and 17th

Data Center Workshops

- Joint presentations with CASR for 10/27 and 11/17 virtual workshop

Energy Solutions Newsletter to Trade Network

- Sent 11/16/23 with updates for 2023 filing, bonus rebates and 60-day notices

TECH Clean California Data Virtual Workshop

- 10/12 Heat Pump Discussion

Colorado Electrification Infrastructure Summit Webinar

- Presented by Cadmus 10/25

Heat Pump Happy Hour Sponsor and Exhibit

- With CCOD, Boulder and other trade partners; 4:00 – 7:00 PM Tuesday 11/7 at Construction Instruction

Colorado Energy Office

- Wednesday Webinar Series; Performance Paths for Commercial Buildings

Global Energy Managers Virtual Workshop

- 11/2 Presented by UC Davis

Xcel Energy virtual workshop for Building Automation Controls and Demand Management

- Announce EMS program changes and new prescriptive measures December 8th workshop.

ESource Winter 2023 Tech Roundup

- Virtual meeting 12/13

2024 Colorado Business Economic Outlook Forum

- Monday 12/4 Grand Hyatt Denver

Rocky Mountain Mechanical Contractors Members Lunch – meeting

- 12/7, 12:00 – 2:30pm; planning sponsorships and participation for 2024 events, newsletters

Energy Efficiency Business Coalition Quarterly Meeting

- 12/14, 7:30 – 10:00

Small Business Energy Solutions Programmatic Digital Ads

- Direct Install/Audit focused



BE PERFORMANCE

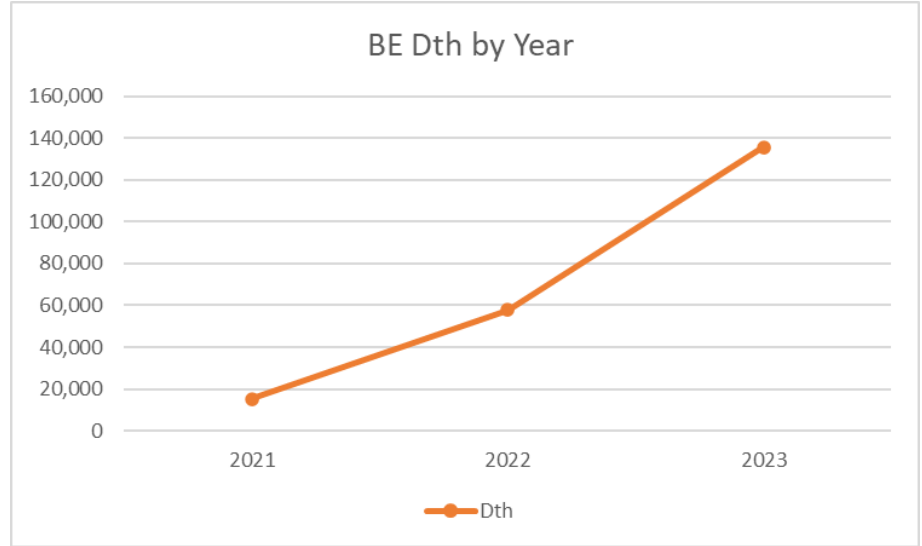
Joshua Martin | Associate Product Portfolio Manager



Exponential Growth in BE Performance Continues

	BE Measures	Non-BE	Total
MSHP	1,517	97	1,614
ASHP	997	14	1,011
HPWH	154	102	256
GSHP	13	1	14
Total	2,681	214	2,895

	Participants
AC	5,173
Evap	2,464
Furnace	4,764
Boiler	181
Gas WH	569



	Participants	Trades (All)	Trades (5+ Installs)	Dth
2021	327	72	16	15,307
2022	1,194	122	42	57,960
2023	2,681	188	71	135,653



IQ/DI OUTREACH AND ENGAGEMENT Q4 - 2023

Tami Gunderzik | Strategic Segment Team Lead



IQ/DI Outreach and Engagement - Q4 2023

Energy Outreach Colorado continued to deliver efficiency education to IQ market

- Target Multi-Family, Nonprofit and Single Family
- New staff, continue to improve content and delivery through 2024

Red Truck continued to attend events and grow in popularity

Partners in Energy – developing equity pilot to develop engagement tools

- Exploring opportunities to work with communities to leverage local organizations to do energy outreach

Latino Community Foundation of Colorado (LCFC) Collaboration

- Launched development of a comprehensive engagement plan across Xcel Energy program portfolios
 - Establish network of trusted messengers already working with underserved markets
 - Aligns with filed Beneficial Electrification Outreach for IQ plan filed for 2023



POTENTIAL STUDY STAKEHOLDER ENGAGEMENT

Nick Minderman | Regulatory Policy Specialist

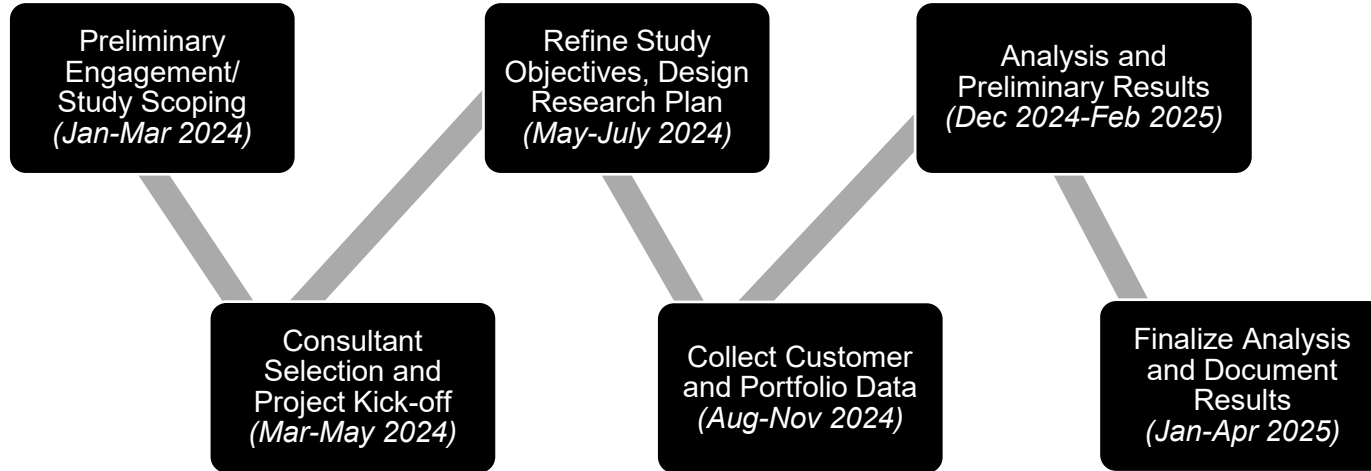
Bill Goodrich | Mesa Point Energy



Principles of 2025 Strategic Issues Potential Study Engagement

- Start conversations before the consultant scope is defined
- Third-party facilitation to enhance transparency
- Define and prioritize different measures of study success
- Regular and bi-directional discussions during study
- Timely discussion of key decisions/inputs/outputs
- Improved documentation of study assumptions/discussions

2025 Potential Study Timeline



Potential Study Working Group: Stakeholder Interviews

At a high level, stakeholders provided the following feedback:

There is general buy-in to attending ~monthly virtual meetings with possible in-person meetings ~quarterly

Allow for reasonable time to review materials before and after meetings and include follow up on how feedback has been considered, addressed, or included

Include additional scenarios to accommodate different interests and compare against standard scenarios

Substantial interest in BE, including its relationship to EE and potential reliance on DM strategies

Strive for clear understanding of assumptions and how they impact potential modeling

Allow time between draft and final results and include data or an executable tool to inspect scenario outputs

Potential Study Working Group: Timing and Logistics

Potential Study Working Group kickoff meeting: Friday March 8th, 2024 11:30am-1:00pm.

Please contact Bill Goodrich to be added.

Kickoff meeting agenda:

- Timing, content, and format of meetings
- Processes and expectations
- 2024/2025 Potential Study timeline and goals
- Review scope of work outline

Potential Study Working Group Contacts:

William (Bill) Goodrich

wgoodrich@mesapointenergy.com

Nick Minderman

Nicholas.Minderman@xcelenergy.com

A low-angle photograph of a modern skyscraper with a blue glass facade and yellow horizontal bands. The Xcel Energy logo is visible on the upper part of the building.

RFP UPDATES

Michael Mangan | Category Manager SC Sourcing and Purchasing



Q4 2023 RFP Submissions

- Energy Savings Kits RFP
- Siting Analysis for CGSHP RFP
- Community Panel RFP

A low-angle photograph of a modern skyscraper with a blue glass facade and yellow horizontal bands. The Xcel Energy logo is visible on the upper part of the building.

VIRTUAL POWER PLANTS

Ryan Bruers | Manager Demand Management



Aggregator DERMS and VPP Agenda

- How did we get here/What is driving this?
- Definitions
- DERMS/VPP Architecture
- DERMS/VPP Components
- Current Status
- Schedule
- Leading Vendors

How many of these have you seen ?

Xcel Targets \$1.4B in Wind and Solar Investment
Carbon-Reduction Goals

New renewables, EVs, a green hydrogen
options will help the utility's target of

Renewable Energy World

FERC 222 continues to be good news for renewable energy
FERC Order 222 guided stakeholders, including renewable project developers, to develop solar with energy storage. FERC Chairman Commissioner Glick wasted no time in making demand response programs no longer have the ability to opt-out, similar to other programs.

Mar 19, 2021

NEWS LINK
Xcel Energy plans to

broader

ers in

opers

resources (DER) such as PV
carrier demand response order.

energy by 60%

Xcel Plans to Achieve Nation-Leading Wind
by 2021

Xcel proposes \$3B in
dogged by pande
News — Jun 18,

FERC 222: On-ramp for DER market participation
The wholesale electricity markets in North America are well down the road of defining participation in the markets. The utility serves a large number of states, most of them with a carbon-footprint goal. The utility serves a large number of states, most of them with a carbon-footprint goal. The utility serves a large number of states, most of them with a carbon-footprint goal.

ICF Insights / Energy

FERC 222: On-ramp for DER market participation
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Jul 25, 2022

News Link — Sep 9, 2019 9:4

projects to bolster

What is DERMS and How Can It Help Utilities
A distributed energy resource management system, or DERMS, is a software platform used to manage a group of distributed energy resources (DER) assets — such as rooftop photovoltaic solar panels, behind-the-meter batteries, or a fleet of electric vehicles, smart thermostats, process controllers, etc. They want a virtual power plant.

Jul 8, 2020

NEWS LINK

Xcel Energy

...we are in transition.

Aggregator DERMS and VPP Definitions

Throughout this presentation the following terms are used:

Resource

- Relationship between the customer and their load

Asset

- Equipment connected to the grid

DERs

- Resources and Assets

DRMS

- Not commonly used in industry
- DERMS is more commonly used

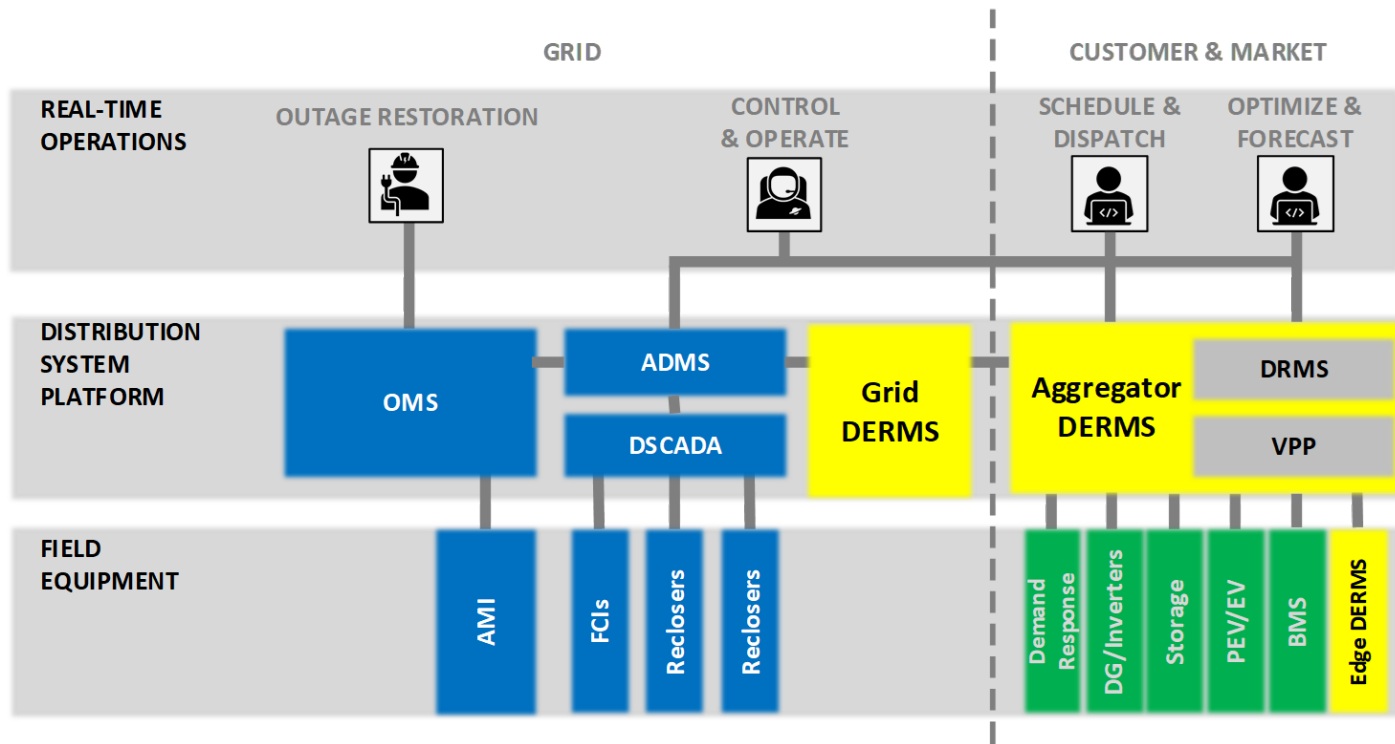
VPP

- Distributed power plant

Aggregator DERMS

- Combination of DRMS and VPP

Aggregator DERMS and VPP Architecture



Aggregator DERMS and VPP Components



Aggregator DERMS and VPP Status

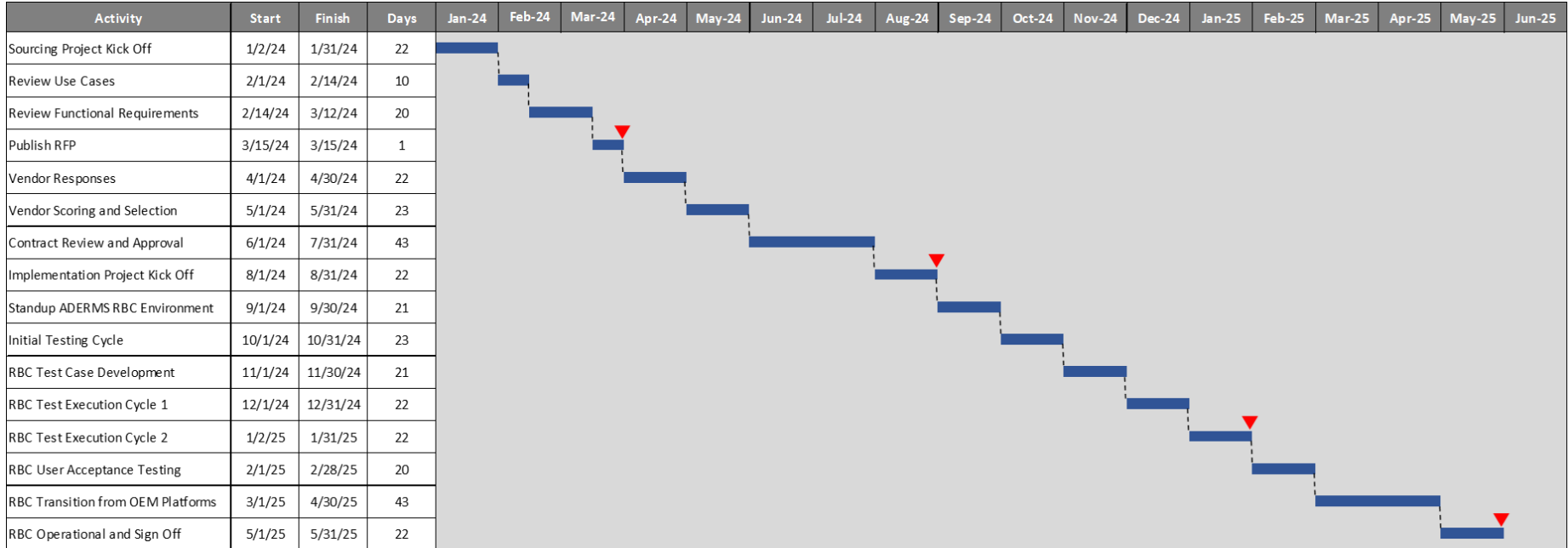
Aggregator DERMS Status Report

Date Updated: 02/01/2024

Leadership	Metric	Lead	Status	Trend	Summary	Key Milestones		
Executive Sponsor: <i>Alice Jackson/Emmett Romine</i> Business Sponsor: <i>Shawn White/Zach Pollock</i> Business Owner: <i>Ryan Bruers</i>	Scope	Steele		→	Responding to CO PUC request for accelerated schedule. Deck for approval discussion being produced for leadership. Technology Services progressing RFP. Demand Management finalizing use cases and functional requirements. Vendor shortlist awaiting confirmation. Key Highlights <ul style="list-style-type: none"> Received feedback from the CO PUC requesting an accelerated schedule. Schedule being assessed. Creating approval discussion deck for leadership presentation. Scheduled to present mid-February. Ensuring Enterprise Architects, Cyber Security, and Network Infrastructure are included in the process. Demand Management team continuing review of Use Cases and Functional Requirements. Legal department aware of upcoming contract review. Vendor list awaiting confirmation by the end of January. 	Date	Milestone	Status
	Requirements	Steele		→		2-Jan-24	Sourcing Project Kick-Off	
	Resources	Nadeem		→		14-Feb-24	Review Use Cases	
	Schedule	Nadeem		→		12-Mar-24	Review Functional Requirements	
	Sourcing	Nadeem		→		12-Mar-24	Review Non-Functional Requirements	
	Budget	Nadeem		→		15-Mar-24	Publish RFP	
	Regulatory	Nadeem		→		30-Apr-24	Vendor Responses	
Overall Health		Nadeem		→		31-May-24	Vendor Scoring and Selection	
Workstream		Lead	Status	Trend				
Documents for RFP (UC, FR, NFR, and AQ)		Steele/Ravi		→				
RFP Release		Nadeem		→				
Review RFP Responses		Nadeem		→				
Select Preferred Vendor		Nadeem		→				
Contract Review		Coleman		→				
Sprint Planning		Nadeem		→				
Organizational Change Management		Nadeem		→				
Test Planning, Development, and Execution		Nadeem		→				
Stakeholder Management		Nadeem		→				
Vendor(s) Management		Nadeem		→				
Status Reporting		Nadeem		→				
Technology		Nadeem		→				

Not Started
 Completed
 Requires Attention
 No Issues
 Immediate Attention
 → Stable
 ↑ Positive
 ↓ Negative

Aggregator DERMS and VPP Schedule



Aggregator DERMS and VPP Leading Vendors

The leading vendors can be categorized across multiple dimensions, including strategic partnerships, end-end integration, specialization, maturation, aggregator, etc.

- Schneider Electric
- GE Digital
- OATI
- Oracle
- Resideo
- WeaveGrid
- Tesla
- KrakenFlex
- CGI
- Itron
- Generac Grid Services
- Siemens Energy
- mPrest
- Hitachi Energy
- Smarter Grid Solutions
- PXiSE Energy Solutions
- Panasonic
- OSI
- Virtual Peaker
- EnergyHub

- BREAK -



NATURAL GAS DEMAND RESPONSE

Stephen Mullaly | Product Developer



Natural Gas Demand Response RFP

- As part of the 2023 Settlement Agreement, an RFI was issued for new Demand Response ideas
- Responses focused on Load Aggregation and Natural Gas DR
- RFP was written to focus on the Natural Gas DR segment for Residential and Commercial customers
 - Considered RFI responses and incorporated PUC comments

Natural Gas Demand Response RFP

- RFP was Issued on January 30th
 - Shared with more than a dozen participants, including those that showed interest in and responded to the RFI
 - RFP posted to Xcel Energy Website ([Colorado Demand-Side Management | Xcel Energy](#))
- Due March 15th
- Targeted pilot for 2024 – 2025 heating season

A low-angle photograph of a modern skyscraper with a blue glass facade and yellow horizontal bands. The Xcel Energy logo is visible on the upper part of the building. The image is partially obscured by a white diagonal shape.

NEW PRODUCTS





RESIDENTIAL NEW HOME CONSTRUCTION

Rob Buchanan | Product Portfolio Manager

2024 Program Updates

Guiding Principles: Colorado PUC ruling on new homes

“Accordingly, we require that the ESNH program support only all-electric housing by June, 30 2024.”

2024 Program Updates

Homes permitted after June 30, 2024 will have to be all-electric (no gas end uses) to be eligible for rebates.

Homes with permit dates on or before June 30, 2024 will be subject to 2023 ENERGY STAR New Homes program criteria – business as usual.

As a result of the all-electric requirement and ENERGY STAR Homes no longer being eligible to participate, the program will be renamed Residential New Home Construction (RNHC).

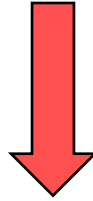
New Rebate Structure

All current rebates will be replaced with three prescriptive tiers

	\$10,000	\$12,000	\$15,000
Requirement	Tier 1	Tier 2	Tier 3
ENERGY STAR NextGen <i>and</i> ZERHv2	Must meet both	-	-
Envelope UA with respect to IECC 2021	-	At least 10% better	At least 25% better
Infiltration rate (ACH50)	-	≤ 1.5	≤ 1.0
Continuous Envelope Insulation	-	Optional	Required
ENERGY STAR v6.1 ccASHP or v3.2 GSHP with address-specific Manual J	-	Required	Required
Heat Pump Water Heater	-	Required	Required
Balanced ventilation	-	Required	Required
All-electric cooking	-	Required	Required

Shifting Program Philosophy

ENERGY STAR New Homes – Mass-market Program



Residential New Home Construction – Market Transformation Program

Program Administration

Resources for training builders and trades to meet requirements

+

Increases in required builder support (consulting, design assistance, plan review, verification)

=

Program vendor will provide necessary inspection and verification services at no cost to the builder. Third-party HERS raters will no longer facilitate program participation.*

*Vendor services are only for rebate requirements. Any code compliance, tax credit, or other required verification will be the responsibility of the builder.

Tier 1 Requirements

Tier 1 Requirements (NextGen & ZERH v2)

- All-electric (no gas end uses)
- ENERGY STAR v3.2
- Envelope does not exceed 100% IECC 2021 UA
- Indoor airPLUS
- Qualifying ccASHP or GSHP
- Must be ENERGY STAR and have address-specific ACCA Manual J
- HPWH with EcoPort
- Electric cooking
- EV-Ready
- PV-Ready



HEAT SAVERS MODE – PRODUCT DEVELOPMENT PILOT

Kevin Scott | Product Developer

Heat Savers Update

Objective

- Goal is to shift gas load between 6am and 9am due to infrastructure limitations during peak time
- Concept – create a program that is like AC Rewards for heating using the same implementer

Agenda

- Season 3 progress
- Season 3 changes
- Goals

Season 3 Progress

	Season 2	Season 3	Change
Enrollments	88	150	62
Summit	60	86	26
Grand	26	62	36
Other	2	2	0
Thermostats	144	255	111
Ecobee	82	176	94
Honeywell	55	67	12
Emerson	7	12	5
Events	14	10	-

Season 3 Changes

- Created 3 groups
 - Group A, B, PH
 - Groups A & B – 50% split
 - PH – Group of customers who agreed to preheat
- Preheat only being explored
- Staggered events – planning on 1-3

Heat Savers Goals

- What is the value of location specific heating DR compared to a mass market offering?
 - How does heating DR fit into a Thermostat Rewards program?
- Is demand saved during an event? How much?
- Expected demand reduction at different outdoor temperatures.
 - 3 vs 4-degree setback
- Pre-heat only.
- Baseline methodology selection.



IQ HOME ENERGY SQUAD

Tami Gunderzik | Strategic Segment Team Lead

Home Energy Squad Visits

Home Energy Squad

- LED bulbs of various types and wattages
- Installation of a new smart thermostat with enrollment in AC Rewards Program
- Advanced power strips
- High efficiency showerheads
- Low flow faucet aerators for the kitchen and bat
- Weather-stripping of one exterior door
- Weather-stripping of one attic hatch
- Temperature assessment and setback of the water heater

Home Energy Squad Plus

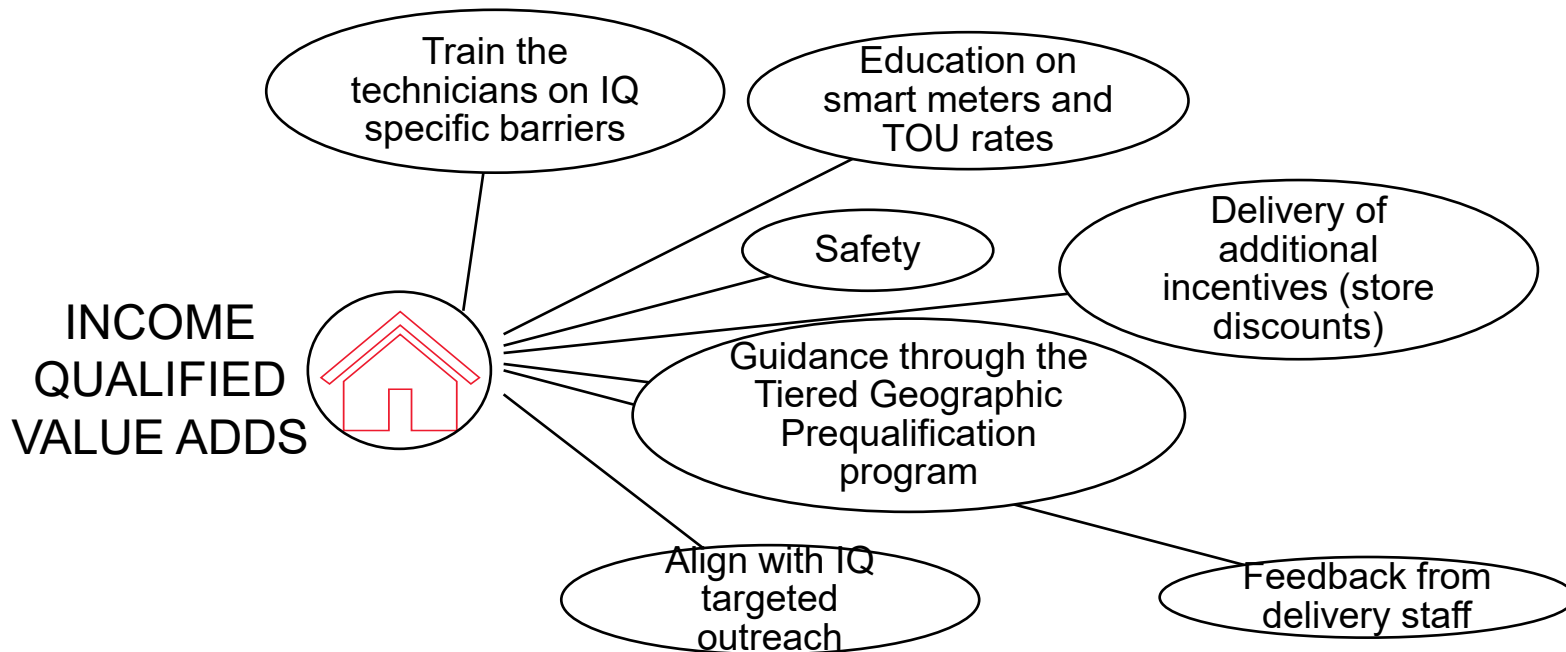
- All the direct install conservation measures of the HES visit
- An Energy Audit for diagnostic testing which may include a blower door test and infrared camera test when applicable

Home Energy Squad Virtual

- Conducted via a videoconferencing tool provided by the implementer with a HES technician remotely accompanying a customer on a walkthrough of their home.
- Intended to lead to a follow-on interaction or program participation

Income Qualified Home Energy Squad

Leveraging the market rate offering structure, enhanced to deliver incremental value to the IQ market.





TIERED GEOGRAPHIC PREQUALIFICATION PROGRAM

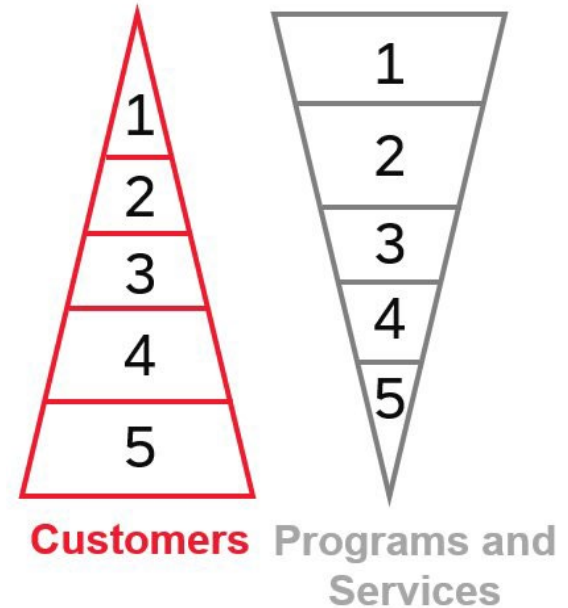
Tami Gunderzik | Strategic Segment Team Lead

PROPOSED PROGRAM STRUCTURE

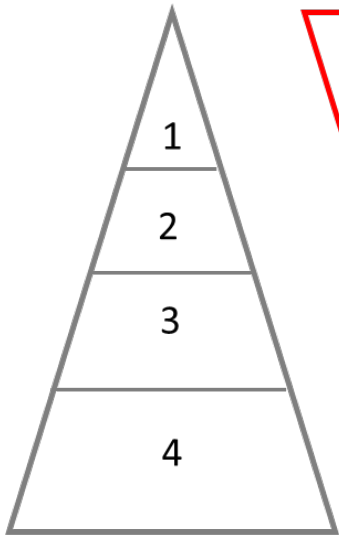
Tiered Program Offering

Tier	Definition
1	Live in DI Communities and verify income levels, Manufactured home residents
2	Do not live in DI Communities and verify income levels
3	Live in DI Communities and self-attest that income levels qualify for IQ offerings
4	Live in DI Communities
5	Xcel Energy electric or gas residential customer

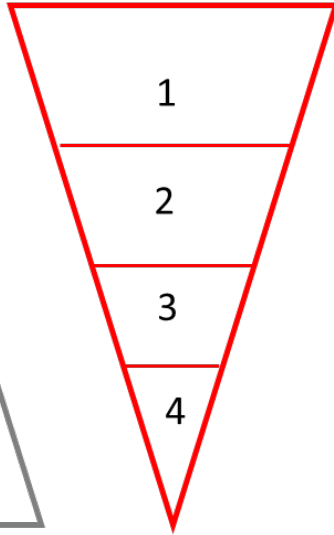
Propose Tiers 1 & 2 require customers to verify HH income levels at or below 80% of AMI, 60% of SMI or 200% of FPL, unless manufactured home.



Program Services



Customers

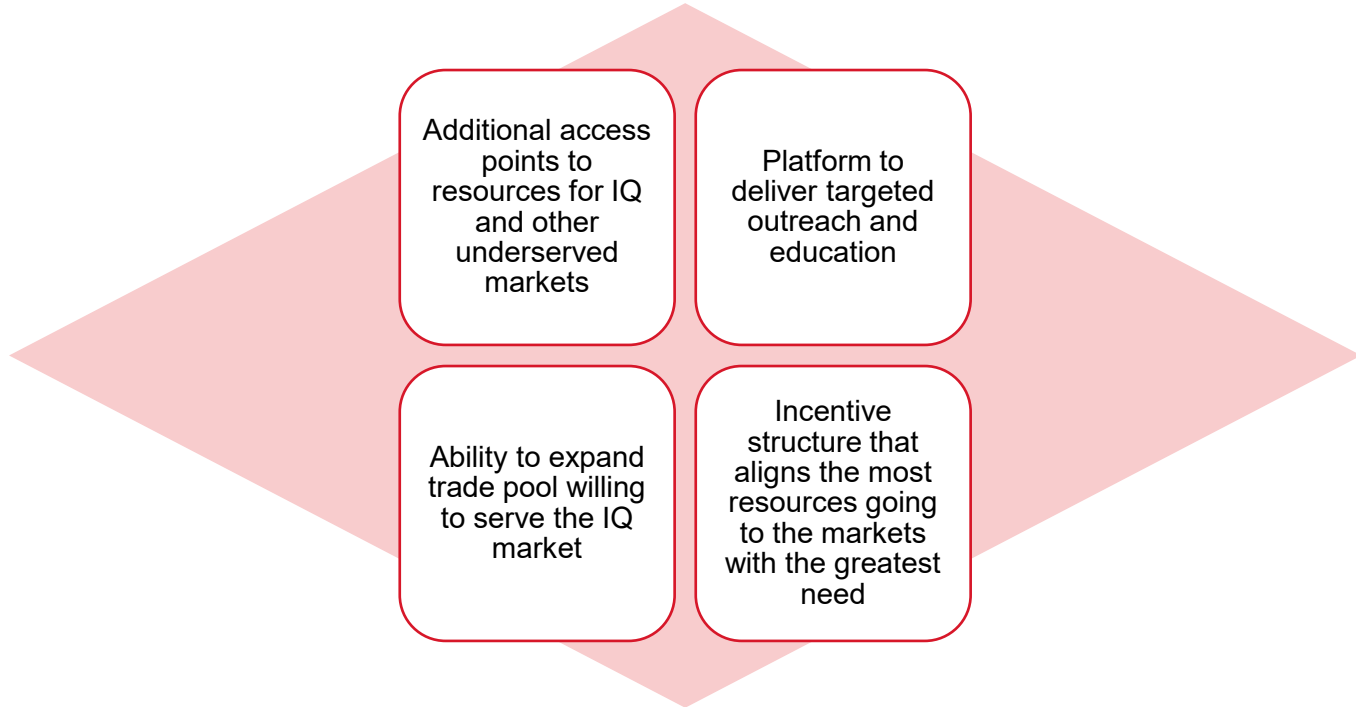


Incremental Programs
and Services

Tier	Offering
4	Free Home Energy Squad visits, Focused education and outreach
3	Add: Bonus rebates for HVAC, insulation and air sealing, Trade Incentives,
2	Add: Single Family Income Qualified Weatherization, Multi-Family Income Qualified Weatherization, Higher level bonus for HVAC, insulation and air sealing, IQ New Construction
1	Add: Manufactured home measures (no additional income verification)

Objectives

What we plan to deliver through this program:



Opportunities

- XE's Red Truck and Latino Community Foundation of Colorado outreach and education initiatives
- Manufactured home park blitzes
- Trade training on technologies, programs and market expectations
- Opportunities to promote through Partners in Energy communities
- Geographic boundary/EnviroScreen parameters enable additional marketing efforts



DSM Regulatory Contacts

Gina Gargano-Amari

Case Specialist II

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Melanie Castro

Regulatory Administrator

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