



Q3 – 2023 COLORADO DSM ROUNDTABLE

November 8, 2023



AGENDA

- 1:00 p.m. Welcome and DSM Regulatory Updates
- 1:15 p.m. Q3 Achievement Update
- 1:30 p.m. IQ/DI Outreach and Engagement
- 1:45 p.m. 2024-2026 DSM BE Plan Updates
- DR PIM and Electric DM Portfolio/Natural Gas DM
 - Heat Savers Study
 - RFP Update
 - BE Budget Update
 - Residential New Home Construction
- Break ————
- BE Net-to-Gross



DSM REGULATORY UPDATES

Q3 – 2023

Gina Gargano-Amari & Nick Minderman | DSM Regulatory



Q3 60-Day Notices

2023 Product Evaluation Updates

- Electric Vehicle Optimization
 - Notification Date (September 1, 2023)
 - Implementation Date (October 3, 2023)

2023 DSM/BE Plan Settlement

- Business HVAC+R Systems
 - Notification Date (July 31, 2023)
 - Implementation Date (September 1, 2023)

Q3 Stakeholder Engagement Updates

- Tiered Program Offerings for the Income Qualified Disproportionately Impacted Community (August 9, 2023)
- On-Bill Financing (August 23, 2023)
- Point-of-Sale, All Electric New Construction & Affordability Programs & Heat Pumps (September 6, 2023)
- Proxy Plant Technical Conference (September 20, 2023)

DSM Regulatory Calendar

- Transportation Electrification Plan (Proceeding No. 23A-0242E)
 - Rebuttal Testimony to be filed on November 17, 2023

- Commission's Examination of 3rd Party Provision of Gas DR Services, Virtual Power Plants and Neighborhood Electrification (Proceeding No. 23M-0466EG)
 - Workshop scheduled for November 21, 2023

- 2024-2026 DSM BE Plan
 - Application to be filed in November

DSM Regulatory Calendar

Upcoming Roundtables - Save the Date!

- Q4-2023 - February 14th, 2024
- Q1-2024 - May 8th, 2024

DSM Potential Study Stakeholder Feedback

Proposed Approach	Prior Approach
Establish a dedicated potential study working group that includes stakeholders (incl. scope, guiding principles, schedules, and deadlines)	Inform stakeholders during DSM Roundtables; Utilize Strategic Issues proceedings to debate outcomes
Collaboratively refine RFP scope during working group meetings with facilitator that guides using Strategic Issues orders for guidance	Xcel develops RFP scope internally, referring to Strategic Issues orders for guidance
Xcel selects provider using criteria established in working group.	Xcel selects provider internally
Conduct potential study with collaborative stakeholder engagement led by third-party	Conduct potential study and update stakeholders during DSM Roundtable meetings with internal staff or selected provider leading
Submit potential study results to CPUC	Submit potential study results to CPUC
Set preliminary goals and budgets for next DSM cycle, with aim toward finding consensus supported by more transparent documentation of study process; conclusion reached in Strategic Issues filing	Xcel submits preferred goals and budgets using study findings and utilizes Strategic Issues proceedings to debate conclusion
Develop and implement DSM Plan based on aligned goals and budgets with PUC support	Develop and implement DSM Plan based on goals and budgets finalized through Strategic Issues orders
Evaluate program and restart DSM lifecycle with additional future potential study	Evaluate program and restart DSM lifecycle with additional future potential study



DSM ACHIEVEMENT UPDATE

Q3 – 2023

Mark Schoenheider | Manager, Customer Energy Solutions



2023 Q3 Achievement Highlights

Electric Portfolio

- 365 GWh (75% of 487 GWh Target)
- 69 MW (69% of 100 MW Target)
- \$73M (78% of \$93M Budget)

Business Programs

- 262 GWh (73% of Target)
- Strategic Energy Management 53 GWh (79%)
- Lighting Efficiency 103 GWh (107%)
- Business Energy Assessments 42 GWh (309%)

Residential / IQ Programs

- 104 GWh (82% of Target)
- Home Lighting & Recycling 62 GWh (229%)
- IQ Single Family Weatherization 16 GWh (70%)
- Residential Heating & Cooling 4.2 GWh (71%)

Gas Portfolio

- 594,227 Net Dth (71% of 832,725 Target*)
- \$15.8M Spend (76% of \$20.7M Budget*)

Business Programs

- 51,849 Net Dth
- New Construction 37,039 Dth
- Business HVAC+R Systems 8,509 Dth
- Small Business Solutions 687 Dth
- Business Energy Assessments 2,616 Dth

Residential / IQ Programs

- 542,377 Net Dth
- ENERGY STAR Homes 60,448 Dth
- Residential Heating & Cooling 218,002 Dth
- Insulation & Air Sealing 29,815 Dth

Marketing Campaigns & Trade Relations Outreach

Residential

Customer Outreach

- Emails – TOU outreach directing customers to storefront
- Mass marketing – Payment Options & Managing higher energy costs, Home Energy Squad
- Emails, Direct Mail – re-engaged customers affected by ARCA situation
- Apogee videos – online store, pre-cooling season tips, 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.

Trade Ally/Stakeholder Outreach

- Launch of 2023 DSM Plan on September 1: training resources for determining heat pump qualifications before and after
- Participation/collaboration with CEO, EEBC, City and County of Denver and Boulder, other utilities
- BPI and heat pump workforce development meetings – ongoing
- Preparations for fall heat pump training (delivered October 11-12)

Partners in Energy Co-branded Outreach

- Erie – Home Energy Squad business cards, multi provider rebate information.
- Broomfield – continue to provide monthly newsletter content and social media posts to promote conservation. Bilingual Home Energy Squad flyer (Spanish).
- Englewood – Home Energy Squad Flyer.
- Denver Zoo – Social media and website content support with energy conservation messaging
- Arvada – Home Energy Squad cobranded collateral (English/Spanish)

Marketing Campaigns & Trade Relations Outreach

Business Q3 2023

Rocky Mountain Facility Managers Expo

- Wednesday July 26th, Arvada Center, Exhibit and presentation.

Certiably Green Webinar DSM Presentation

- With the Business Solutions Center 7/27

Rockies Game for Rocky Mountain Mechanical Contractors Association (RMMCA)

- Food sponsorship, member appreciation event Wednesday August 16th

Garver Water Technology showcase

- Red Rocks Community College August 15th, VFD, Controls presentation

ESOURCE Annual Forum

- September 20 – 22nd Denver

Broncos Kick Off Lunch and Opening Day Trade Events

- 8/31 - Broncos Training Camp; Broncos vs. Raiders XE Suite, 9/10 Trade Event

Energy Management Systems Trade Workshops

- August 10th & 18th

Outreach to Lighting Trade

- Discuss LED to LED Prescriptive option for 2024 filing specifically exterior lighting.

National Energy Improvement Fund and Colorado Clean Energy Fund Meetings

- To discuss new low interest LED Financing, adding agenda item to lighting workshops.

Custom Lighting Training Workshops

- September 12th & 14th

CO HVACR Program Changes -- Updates to Trade

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

EEBC Quarterly Membership Meeting

- Thursday 9/21/23
- HVAC Heat pump Workshop promotion



IQ/DI OUTREACH AND ENGAGEMENT Q3 - 2023

Tami Gunderzik | Strategic Segment Team Lead



IQ/DI Outreach and Engagement

EOC Funded Outreach and Education

- 3 outreach events
- 178 units in multi-family residence (upgrade/retrofit information, EE tips, assistance programs)
- Continuous improvement on optimizing the educational literature.

Xcel Energy's RED Truck

- Awareness building in the market leading to requests for presence at events

Partners in Energy

- Increased requests for translated materials for outreach
- Support for manufactured home event with LED kits and translated materials
- Participating communities can access the "Reaching Underserved Populations" toolkit
- Community Event "Workforce Development – Supporting an Equitable Clean-Energy Workforce"



2024-2026 DSM BE PLAN UPDATES

A photograph of a modern Xcel Energy building with a blue and yellow facade, viewed from a low angle looking up. The building is partially obscured by a white diagonal graphic element.

DR PIM, ELECTRIC DM PORTFOLIO & NATURAL GAS DM

Ryan Bruers | Manager, Business Solutions and Result



Electric DM Portfolio

Goals

- Approved Electric DR Goals

	2024	2025	2026
Summer	593	628	663
Winter	281	301	321

- Dispatchable
- Maximum megawatts on Peak Summer Day
- Contracted or deemed value

Electric DM Portfolio

Savings Targets

- 2024-2026 Electric DR Savings Targets

	2024	2025	2026
Summer	630	651	675
Winter	287	301	322

- Marketing Efforts (Customer Meetings, Seminars, Social Media, etc..)
- Expand/Evolve existing programs
- New Programs
- Leverage Technology

Electric DM Portfolio

Budget

- 2024-2026 Electric DR Budget

	2024	2025	2026
Budget	\$20,900,000	\$21,700,000	\$22,400,000

Natural Gas DR

- No Gas DR goals for 2024-2026
- RFI Issued/RFP Update
- Updated review of other Utilities Gas DR
 - Relatively new area
 - Limited success
- Heat Savers

DR PIM

Overview

- SI DR PIM was a two-tiered PIM
 - Dispatch Incentive and Capacity Incentive
- Commission declined DR PIM in SI, but to include an update proposal in DSM Plan
 - Include net economic benefits
 - Capacity and callability attributes
- Company's new DR PIM consists of 2 components
 - Awards a percentage of Utility Cost Test net benefits generated by the program
 - Adjusts the net benefits by a realization rate for program performance during events

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.

HEAT SAVERS STUDY

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 gas using the same implementer

Agenda

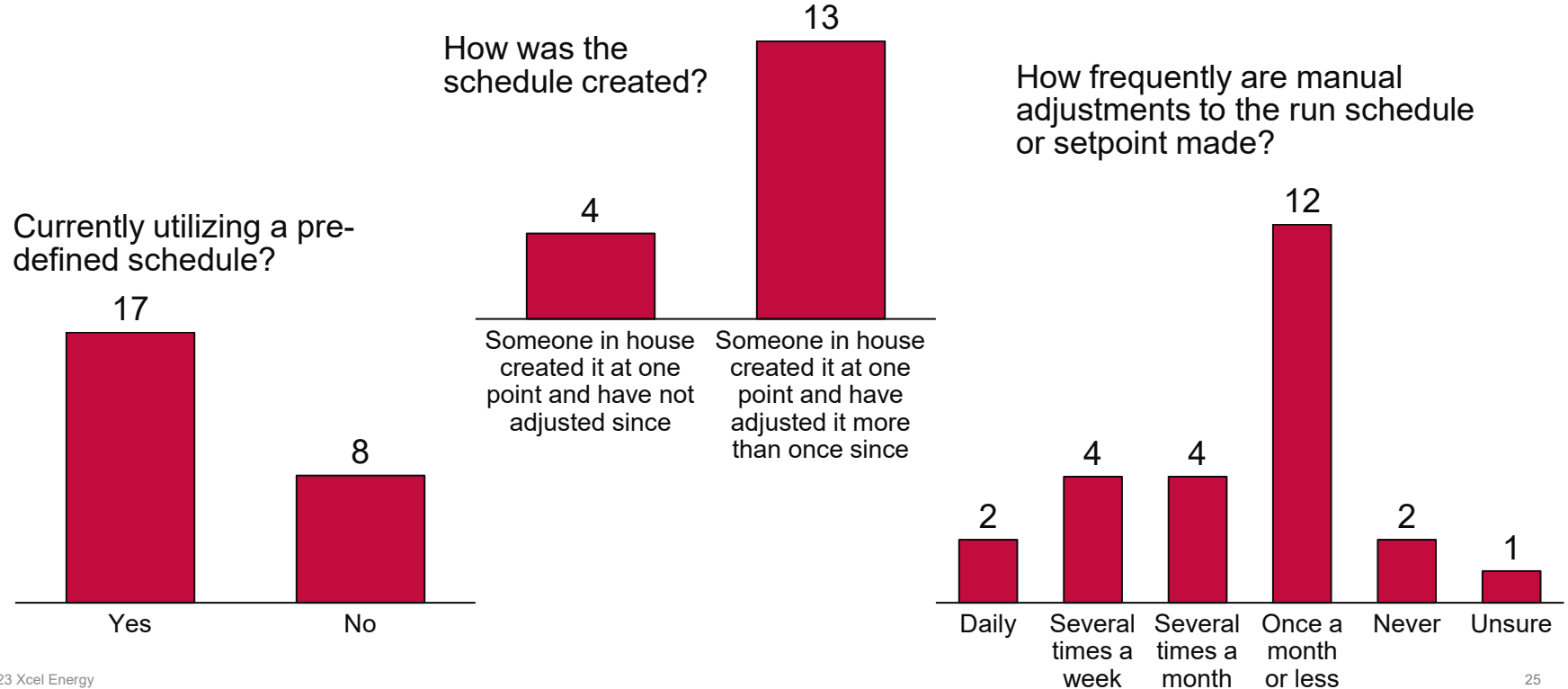
- Discuss survey conducted (25 participants) and results
- M&V analysis

Season 2 Survey

Two primary reasons for the survey:

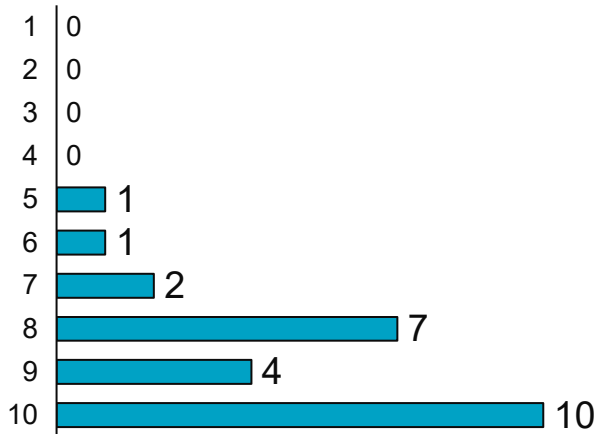
1. Ask for furnace data – utilize furnace output with runtime to estimate gas usage
 - Compare against Resideo data
 - Compare against Copper Labs data
2. Ask customers questions to inform season 3 decisions and beyond
 - Schedules
 - Incentive levels
 - Event motivation
 - Emergency Events

Season 2 Survey - Schedules

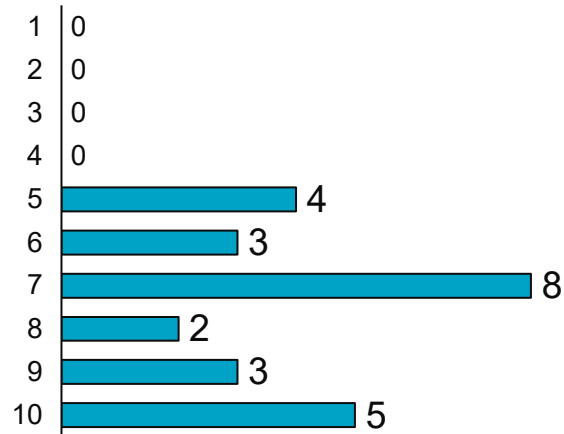


Season 2 Survey - Schedules

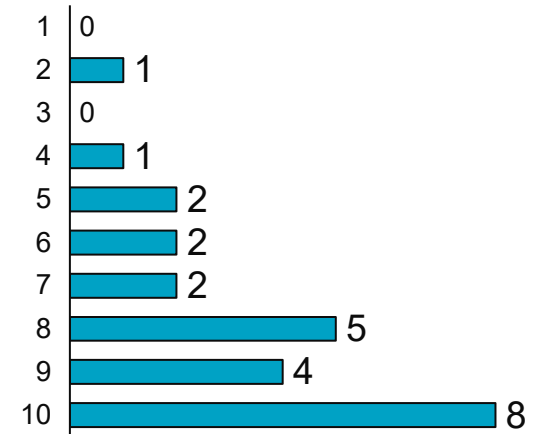
Importance to **save money**
on natural gas bill utilizing
thermostat run schedule



Importance of run
schedule to maintain a
comfortable temperature
range



Importance to **reduce**
natural gas by utilizing
thermostat run schedule



Season 2 Survey - Incentives

How many events would you be willing to participate in to receive a **\$50** incentive?

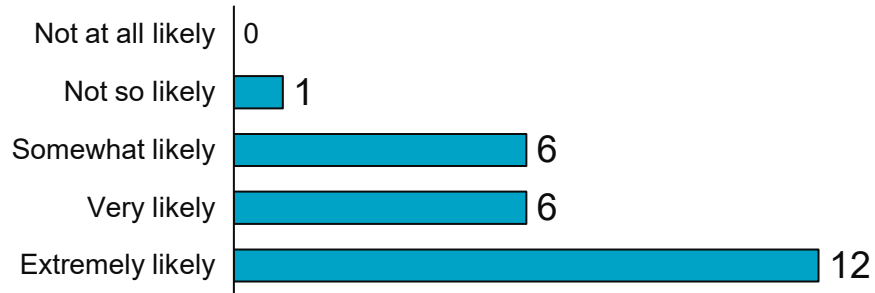
8.6

How many events would you be willing to participate in to receive a **\$100** incentive?

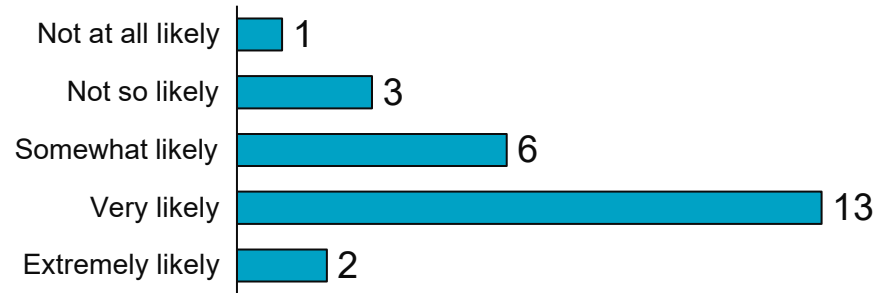
13.7

Season 2 Survey – Event Motivation

How likely are you to participate in an event to **reduce natural gas**?

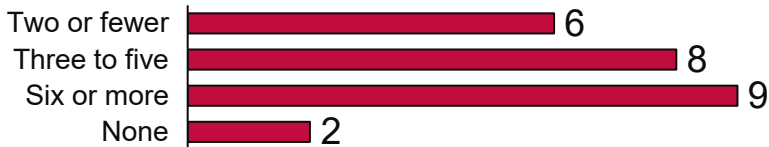


How likely are you to participate in an event to **provide system stability** for all natural gas customers?

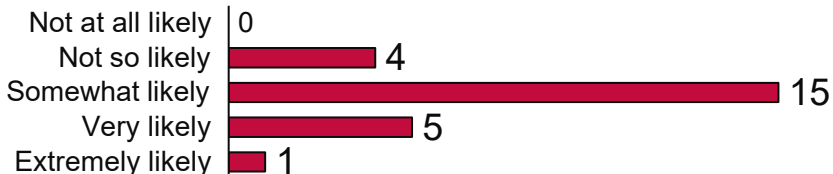


Season 2 Survey – Emergency Events

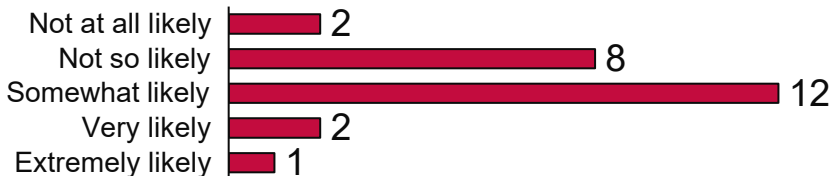
How many events would you participate in over the course of a **weeklong streak** of cold days?



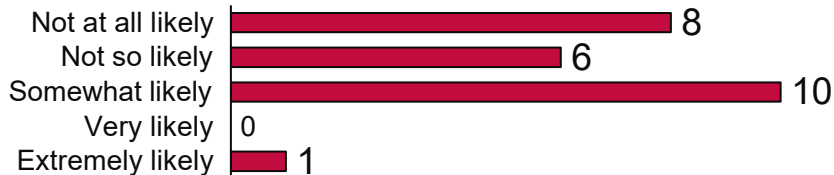
How likely would you be to participate in an event where the thermostat is set back for between **4 and 12** hours?



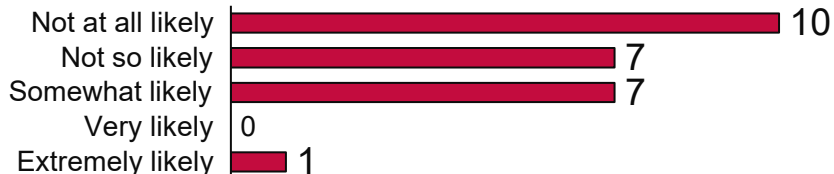
What about between 13 and 24 hours?



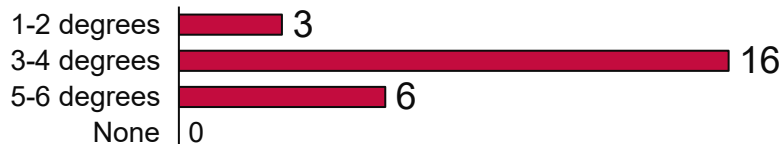
What about up to 2 days?



What about up to 3 days?



How much temperature setback could you tolerate?





MichaelsEnergy

Heat Savers M&V

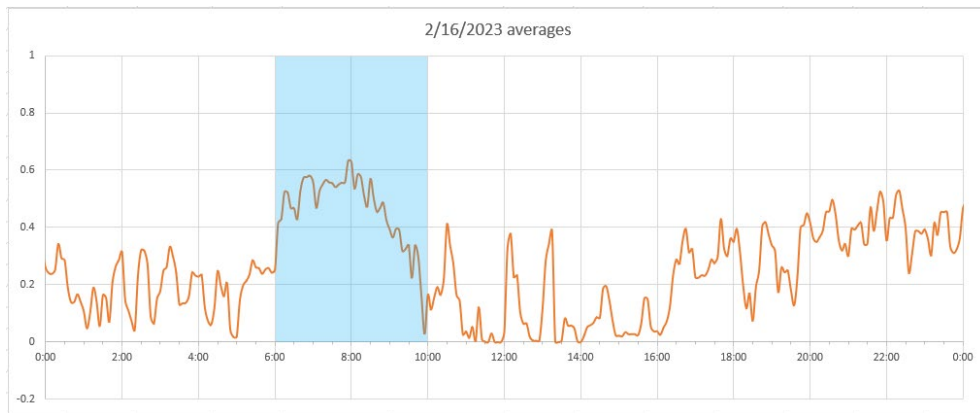
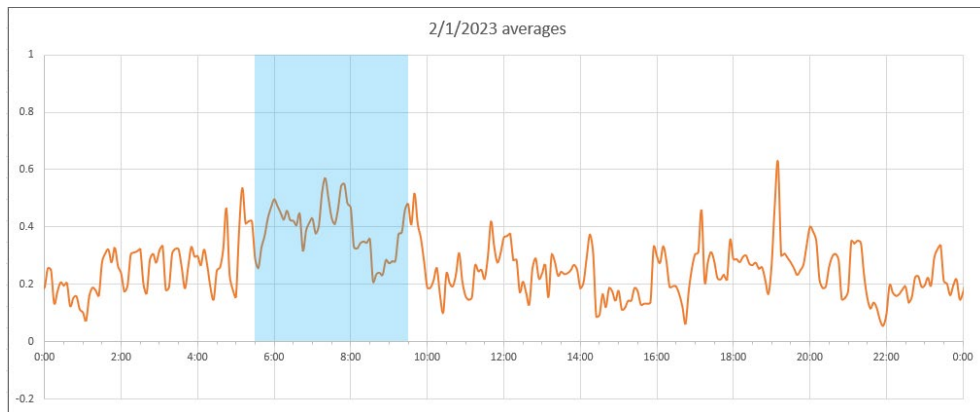
2022-2023 Heating Season

November 8, 2023

Copper Labs Analysis

Overview

- 5 participating sites with data.
- Readings from natural gas meters.
- Data does not reflect demand response events.



Runtime Analysis

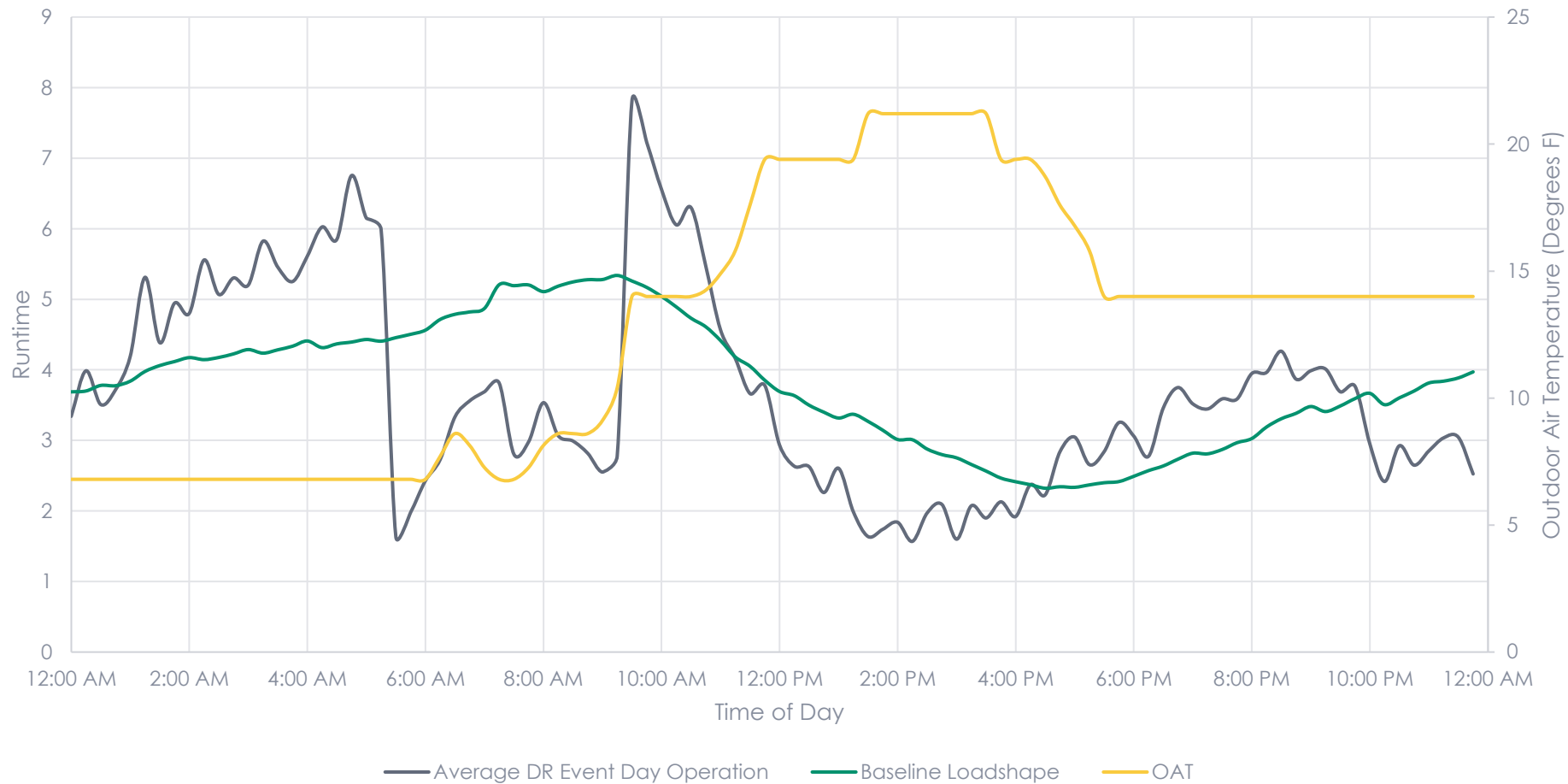
Event Data

- Residio: 15-minute interval runtime data
- Average runtime for all participating
- Furnace survey
 - Average input capacity: ~100,000 BTU/hour

Baseline

- Grand County load shapes (2018)
- Comparison day selection
 - Low, High, Average temperatures
- Scaled to best fit with event day

Event 3: 2/1/2023 Comparison with Baseline



Summary			Preliminary Savings (Therms *based on 100,000 BTU/hr)				
Event	Date	Preheat (-2 hrs)	Event	Snapback (+2 hrs)	Participant Count	Total (Therms)	Outdoor Temp
1	1/20/2023	20.2	161.7	-2.8	131	179	9.6
2	1/24/2023	3.7	153.3	8.6	131	166	7.8
3	2/1/2023	-10.1	49.7	-10.3	129	29	1.2
4	2/3/2023	-43.7	74.4	-2.8	130	28	10.2
5	2/8/2023	-32.5	107.9	-23.1	129	52	10.9
6	2/9/2023	-0.5	164.4	-1.1	128	163	5.6
7	2/16/2023	2.5	160.6	12.6	129	176	-4.6
8	2/23/2023	0.5	82.8	15.2	127	98	-3
9	2/28/2023	21.1	109.3	-21.4	125	109	12.4
10	3/10/2023	-20.0	92.5	-20.3	128	52	16.3
11	3/17/2023	-31.2	87.7	-22.9	127	34	4.5
12	3/21/2023	-23.8	64.2	-15.8	125	25	14.4
13	3/28/2023	-60.6	23.9	-28.7	135	-65	-0.2
14	3/30/2023	-32.5	36.1	2.7	122	6	23.5
Total		-206.9	1368.3	-110.1		1051.3	
Average		-14.8	97.7	-7.9		75.1	

Areas of Improvement

- Using Resideo telemetry data as a baseline
- Improving baseline weather days with regressions



RFP UPDATE

Stephen Mullaly | Product Developer



2023 Colorado Settlement RFP Update

- RFI received 14 idea submissions
 - Ideas covered both electric and gas DR for commercial and residential customers
- After review, two areas of interest were selected for drafting an RFP for potential pilots
 - Development of a Demand Response Aggregator Marketplace
 - Development of a Natural Gas Demand Response Program
- An RFP is being drafted to cover these two areas of interest and plans are to issue it around the new year



BE BUDGET UPDATE

Mark Schoenheider | Manager, Customer Energy Solutions



Beneficial Electrification Budget Update

Heat pump rebates in the Plan will be lower than current levels

BE Portfolio	Budget	Dth Goal	\$/Dth
2024	\$9.5M	257,000	\$36.96
2025	\$21M	622,000	\$33.76
2026	\$37M	1,143,000	\$32.37

- BE Rebate progression – cold climate heat pump as an example:
 - \$600 to \$1,000 per unit at launch in 2021
 - \$2,000 per unit in early 2023
 - 2023 plan settlement added 10% to \$2,200 per unit (\$50/Dth)
 - 2024-2026 plan will likely be \$1,700 per unit (\$38/Dth)



RESIDENTIAL NEW HOME CONSTRUCTION

Rob Buchanan | Product Portfolio Manager



Residential New Home Construction

How we got here: Strategic Issues

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

Residential New Home Construction

f/k/a ENERGY STAR New Homes

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

Homes with permit dates on or before June 30, 2024 will be subject to 2023 Energy Star New Homes program criteria

Create three performance tiers:

- The current all-electric bonus becomes Tier 1
- Tiers 2 & 3 are based on the MassSave all-electric rebate program

Residential New Home Construction

f/k/a ENERGY STAR New Homes

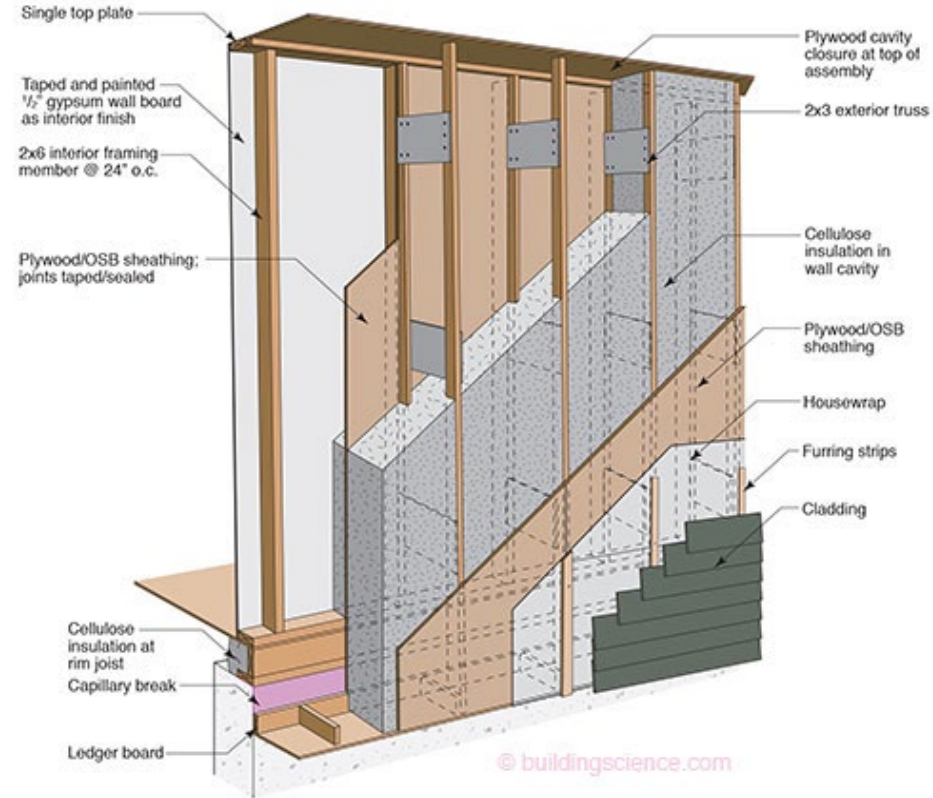
Requirement	Tier 1	Tier 2	Tier 3
Energy Star NextGen and ZERHv2	Must meet both	-	-
Envelope UA with respect to IECC 2021 code minimums	-	At least 10% better	At least 25% better
Infiltration rate (ACH50)	-	≤1.5	≤1.0
Continuous envelope insulation	-	Optional	Required
ENERGY STAR v6.1 ccASHP or v3.2 GSHP with address-specific Manual J	-	Required	Required
Heat Pump Water Heater	-	Required	Required
Balanced ventilation	-	Required	Required
All-electric cooking	-	Required	Required

Residential New Home Construction

Why this change?

The legacy program design is inadequate to the task of electrification

- Equipment swaps increase customer utility bills, cause negative customer experiences, and could unreasonably strain the distribution grid

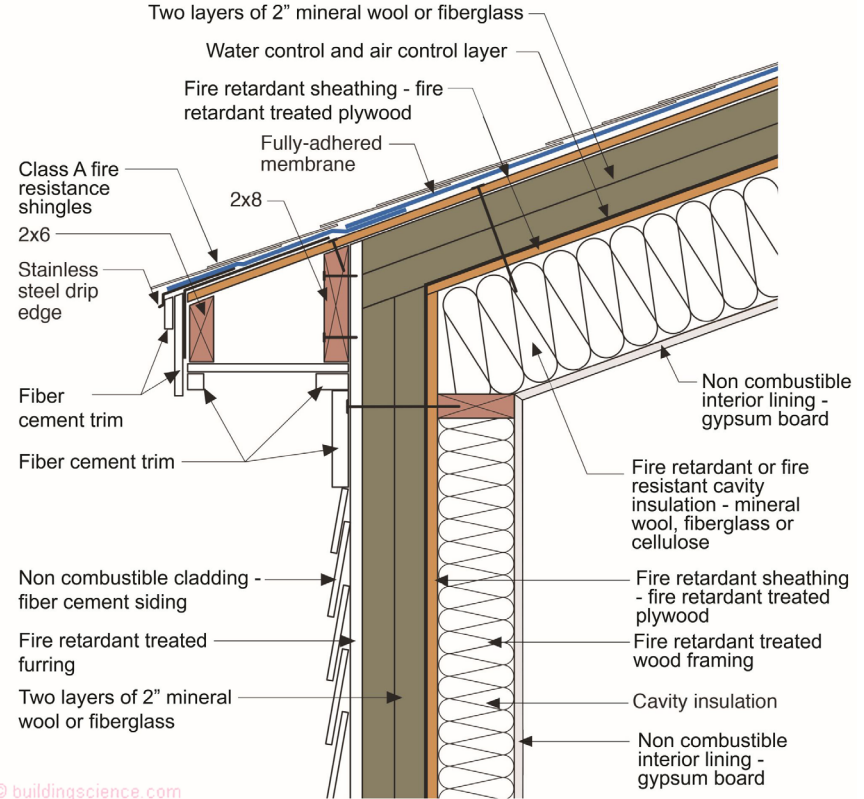


Residential New Home Construction

Why this change?

Demonstrate market leadership and drive market transformation

- Since 2021, 70% of Energy Star New Homes participating dwellings have been less than 20% better than code
 - Residential New Home Construction Tier 1 is 30% better than IECC 2021



Residential New Home Construction

Connecting customers to builders

Elevate the status of Program-qualifying homes and builders

- Highlight benefits
- Improve market share for high performance builders

LIVE THE CAREFREE ELECTRIC WAY

Electric heat can make any home feel like new

Whether your home is 15 or 50 years old, flameless electric heat is the modern cure for drafts, cold spots and hot blasts.

Nothing rejuvenates an older home faster than modernizing with electric heat. It's even heat. Unbeatably clean. Quiet. And odorless. It rarely requires servicing. And of course, it's flameless. That goes for electric cooling, too. So live carefree with flameless electric heat... in any home, old or new. Mobile home and apartment, too. Call your electric heating contractor or your electric light and power company.



Live the carefree way with
Flameless Electric Heat

Live Better Electrically
Edison Electric Institute
700 Third Ave., N.E., P.O. Box 1007
This Gold Medal identifies a home where everything's electric, including the heat.

Residential New Home Construction

Market transformation and skill building

Provide top-class trainings

1. Contracted with EEBA and Construction Instruction (Ci) for trades training on Zero Energy Ready v2 and Energy Star NextGen
2. ANSI/RESNET/ACCA 310 training
3. Engaging industry partners and other training providers





TIME FOR A BREAK



DSM Regulatory Contacts

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