



## AGENDA

1:00 – 1:10 p.m.

Welcome and DSM Regulatory Updates

1:10 – 1:20 p.m.

Q2 Achievement Update

1:20 – 1:50 p.m.

Distributed Intelligence Updates

1:50 – 2:45 p.m.

Settlement Commitments & Timing

2:45 – 2:50 p.m.

Outdoor Equipment Electrification

2:50 – 3:00 p.m.

Closing Remarks

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.

# DSM REGULATORY UPDATES Q2 – 2023

Jeremy Lovelady| Regulatory Policy Specialist



## Q2 60/90-Day Notices

Filed- 6/30/2023

Deadline- 7/31/2023

### 2022 Product Evaluations

- Energy Management System
- Energy Savings Kits
- Home Energy Insights
- Lighting Efficiency
- Whole Home Efficiency

### 2023 DSM/BE Plan Settlement

- IQ Geographic Prequalification Pilot

# DSM Regulatory Calendar

## Filing Schedule

- 2023 DSM Plan
  - Commission ruled on Iconergy ARR on July 19<sup>th</sup>
  - PSCO will file redline plan by August 25<sup>th</sup>
  - Launch 2023 Plan on Sept 1<sup>st</sup>
- DSM Strategic Issues + Beneficial Electrification
  - ARRR deliberations on August 2<sup>nd</sup>
- 2024-2026 DSM Plan
  - Anticipated filing by October 31<sup>st</sup>
  - Stakeholder outreach kicks-off on August 9<sup>th</sup>.

# DSM Regulatory Calendar

## Upcoming Meetings – Save the Date!

### Roundtable

- Q3-2023 - November 8<sup>th</sup>, 2023
- Q4-2024 - February 14<sup>th</sup>, 2024

### Stakeholder meetings

- Tiered Income-Qualified/DI Communities Programs Q3-2023 – August 9<sup>th</sup>, 2023
- On-bill Financing – August 23<sup>rd</sup>, 2023
- Point-of-Sale, All-Electric Affordability Program, & Heat pumps – September 6<sup>th</sup>, 2023
- Proxy Plant Methodology: Technical Workshop – September 20<sup>th</sup>, 2023

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.

# **DSM ACHIEVEMENTS**

## **Q2 – 2023**

**Mark Schoenheider | Manager, Customer Energy Solutions**



# 2023 Q2 Achievement Highlights

## Electric Portfolio

- 215 GWh (44% of 487 GWh Target)
- 35 MW (35% of 100 MW Target)
- \$43M (46% of \$93M Budget)

## **Business Programs**

- 155 GWh (43% of Target)
- Strategic Energy Management 36 GWh (54%)
- Lighting Efficiency 63 GWh (65%)
- Business Energy Assessments 19 GWh (140%)

## **Residential / IQ Programs**

- 60 GWh (48% of Target)
- Home Lighting & Recycling 33 GWh (53%)
- IQ Single Family Weatherization 4.8 GWh (21%)
- Residential Heating & Cooling 2 GWh (14%)

## Gas Portfolio

- 340,650 Net Dth (38% of 898,487 Target)
- \$9M Spend (36% of \$25M Budget)

## **Business Programs**

- 29,226 Net Dth (18% of Target)
- New Construction 18,794 Dth (19%)
- Business HVAC+R Systems 5,662 Dth (16%)
- Small Business Solutions 221 Dth (2%)
- Business Energy Assessments 1,551 Dth (37%)

## **Residential / IQ Programs**

- 311,424 Net Dth (42% of Target)
- ENERGY STAR Homes 37,242 Dth (25%)
- Residential Heating & Cooling 117,883 Dth (68%)
- Insulation & Air Sealing 22,327 Dth (96%)

# 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 – utilized machine learning to target specific people most likely to participate in Refrigerator Recycling program.
- 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, Lighting, and Refrigerator Recycling.
- 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

- Panel participation at the EEBC's quarterly meeting on the topic of grid readiness (Mark Schoenheider)
- 2023 annual, required, online "Centrally Ducted AC and Heat Pump Quality Installation Class" was released and completed by 200 trade partners
- Air Conditioning measurement and verification conversations/warning letters
- Spring heat pump training class (May 18-19) – deep dive into controls, defrost cycle, best practices, heat pump water heaters
- Rebate news emails
- Participation/collaboration with CEO, EEBC, City and County of Denver and Boulder, other utilities
- Whole Home Efficiency seminar with active program Trade Partners
- BPI and heat pump workforce development meetings - ongoing

### Partners in Energy Co-branded Outreach

- Town of Frisco – social media for to promote summer energy savings
- Lone Tree – newsletter content – home and business energy saving tips, promote Home Energy Squad, Business Energy Audits, the XE store/Smart Thermostats, Cooling rebates
- Broomfield – continue to provide monthly newsletter content and social media posts to promote conservation



# Marketing Campaigns & Trade Relations Outreach

## Business Q2 2023

### **2023 Energy Efficiency Partner Awards Completed**

- Website is updated with award winner names and links to their website
- Lunch/meetings scheduled for onsite recognition and presentation of award
- Exclusive Trade Partner Cases studies offered to lighting award winners

### **Xcel Energy Expo**

- Empower Field - Set up Monday 4/3, event Tuesday 4/4/23
- 8 Trade Partners invited to exhibit at the Expo; 450 attendees

### **31st Annual ASHRAE Technical Conference**

- Exhibit & sponsorship 8:00 – 5:00 Friday 4/28/23

### **Lighting Trade Partner Meetings Scheduled**

- Feedback from Trade for the Lighting Filing Planning Strategy Session in June and the 2024-2026 Triennial Filing

### **Data Center Program review**

- Working with the Colorado Department of Public Health and Environment to promote our joint Data Center Programs
- Ongoing monthly meetings, data center site visits planned

### **EEBC Quarterly Membership Meeting**

- Mark Schoenheider presented on Beneficial Electrification plans and Grid Capability
- Thursday June 15th



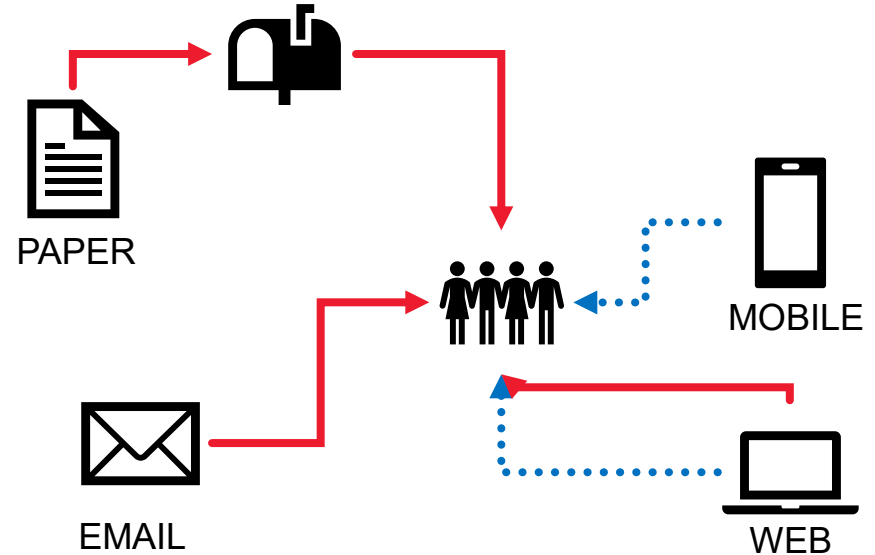
# **DISTRIBUTED INTELLIGENCE (DI) UPDATES**

**Corrine Villim | Senior Product Manager**

# Distributed Intelligence

## Demand Side Management Portfolio Fit

- Include DI as a complementary behavioral measure in Home Energy Insights:
  - My Energy Web Portal
  - Paper Reports
  - High Bill Alerts
  - ***\*NEW\* Mobile Application***
- Allow concurrent enrollment in other measures and multiple engagement channels



# My Energy Connection Mobile Application

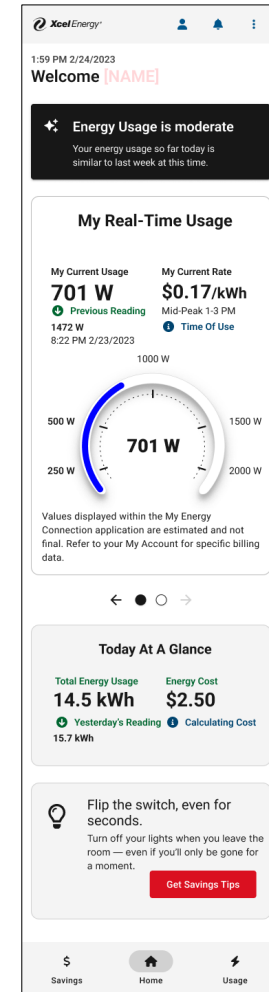
## Release Plan

### Release 1

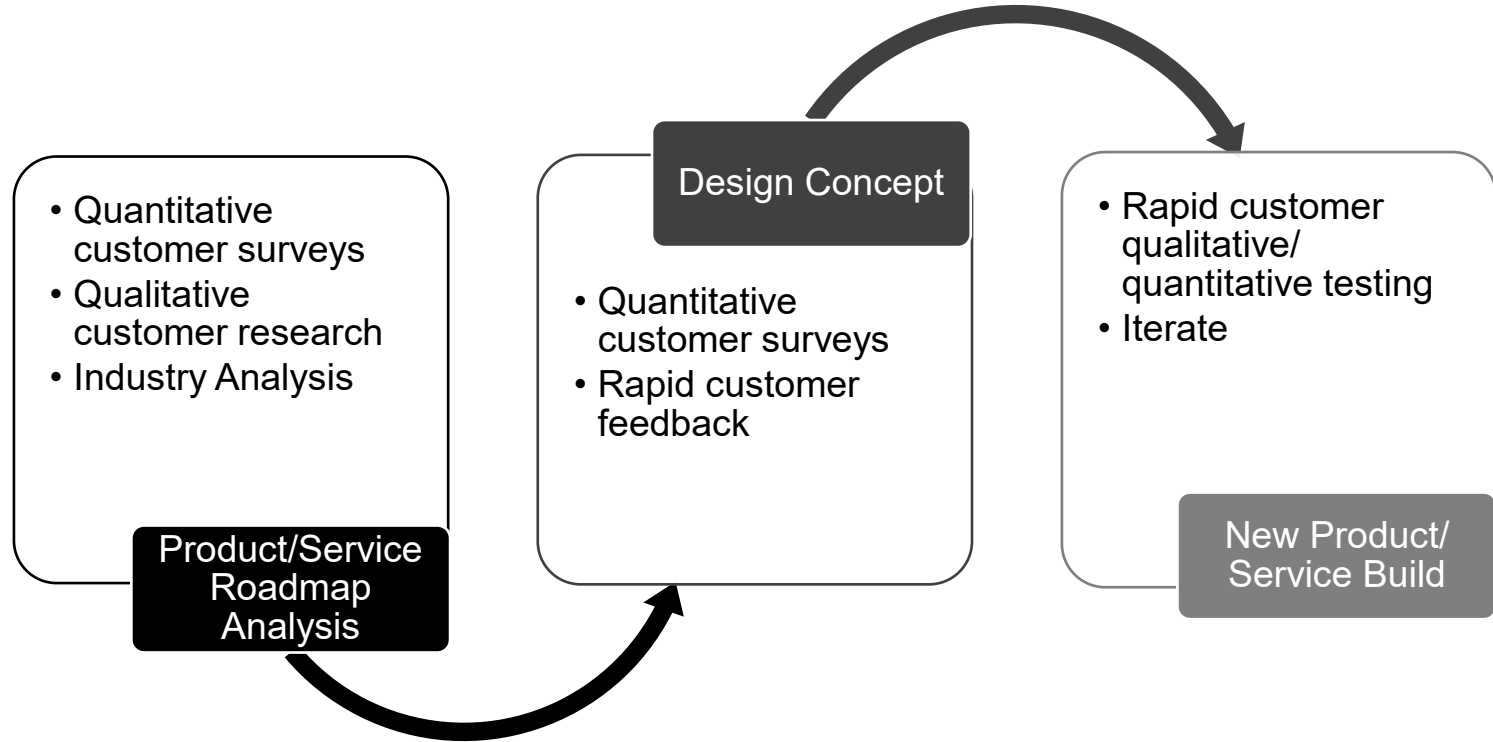
- September 2023
- Uses AMI Home Area Network (HAN) to provide real-time energy insights
- Does not include disaggregation insights

### Release 2

- Will include disaggregation insights
- Timing dependent on CO PUC approval
- Application seeking approval of customer-facing disaggregation insights will be filed with the 2024-2026 DSM plan



# Voice of the Customer Informs Strategy

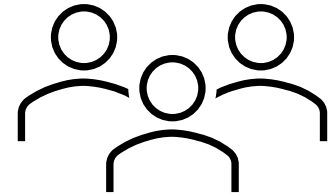
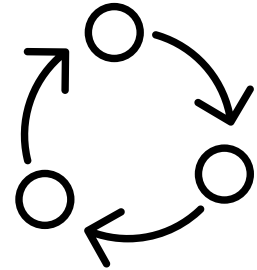


# Distributed Intelligence Customer Research

Features in release 1 were prioritized based on customer feedback

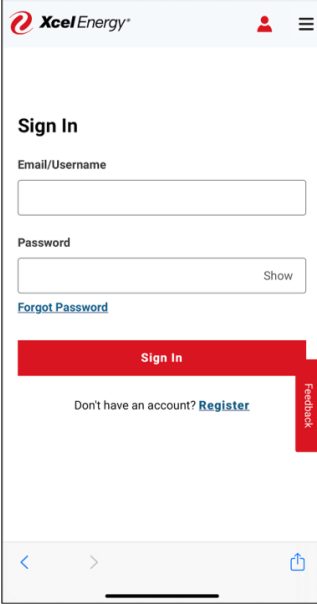
## General Customer Feedback

- Customers want to understand and change their energy usage to save money, but they need help.
- Customers want baselines/comparisons, so they know how they are doing.
- Customers want their data (cost and usage), but they want it at a glance.
- Customers want to see the current cost without having to do the math.
- Customers have a desire to know what behaviors they should implement to increase their cost savings.
- Customers don't always know the definitions to commonly used words in the utility space.

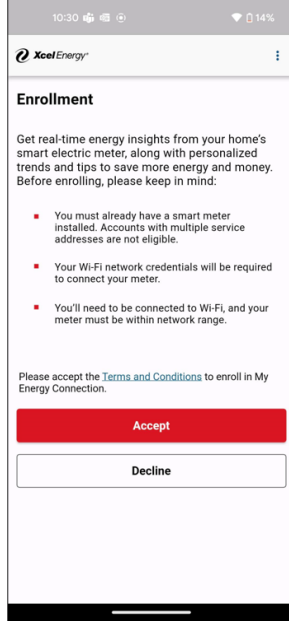


# My Energy Connection Release 1 Key Features

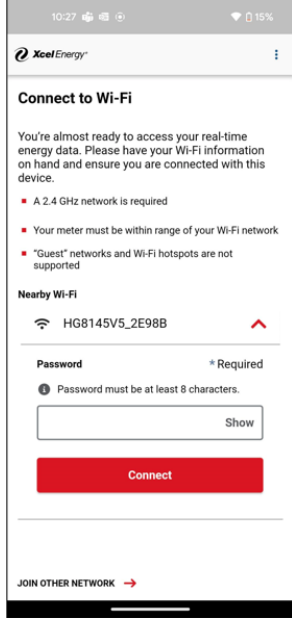
- **Onboarding journey (enrollment, meter licensing, Wi-Fi provisioning, app tutorial)**
- Real-time in-home (1 second) meter data via the Home Area Network (HAN)
- Away From home 15-min AMI data
- Running total energy usage and cost for that day
  - Comparison to yesterday for reference
  - Clearly shows if customer is doing better or worse
- Historical usage and cost graphs (daily, weekly, monthly views)
- TOU highlights (if applicable)
- Actionable savings tips
- Educational energy items in-app



The Sign In screen features the Xcel Energy logo at the top left and a user icon with a menu icon at the top right. It includes input fields for 'Email/Username' and 'Password', with a 'Show' button next to the password field. A 'Forgot Password' link is located below the password field. A large red 'Sign In' button is centered at the bottom. Below this button is a link for 'Don't have an account? Register'. A vertical 'Feedback' button is on the right side. Navigation arrows and a share icon are at the very bottom.



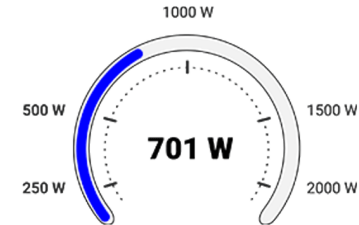
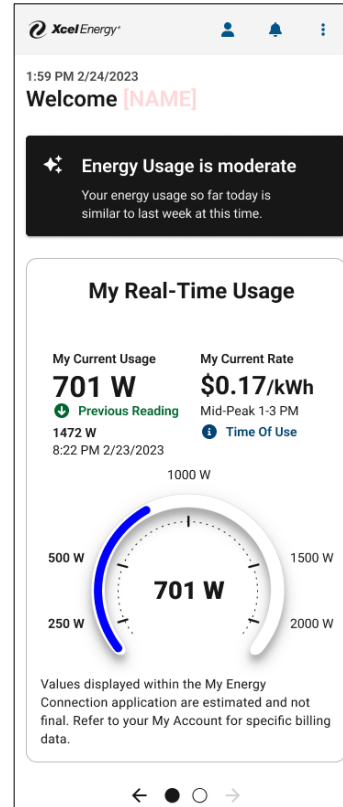
The Enrollment screen displays the Xcel Energy logo and a title 'Enrollment'. It provides introductory text about real-time energy insights and lists three requirements for enrollment: having a smart meter, being within Wi-Fi range, and having a 2.4 GHz network. Below the list are 'Accept' and 'Decline' buttons. A link to 'Terms and Conditions' is provided. The screen also shows the time, battery level, and signal strength at the top.



The 'Connect to Wi-Fi' screen shows the Xcel Energy logo and a title 'Connect to Wi-Fi'. It explains the need for Wi-Fi information and lists requirements: a 2.4 GHz network, being within range, and not using guest networks. It displays the detected network 'HG8145V5\_2E98B' with a red arrow pointing to it. Below this is a 'Password' field with a 'Show' button and a 'Connect' button. A 'Feedback' button is on the right. At the bottom, there is a link to 'JOIN OTHER NETWORK'. The screen also shows the time, battery level, and signal strength at the top.

# My Energy Connection Release 1 Key Features

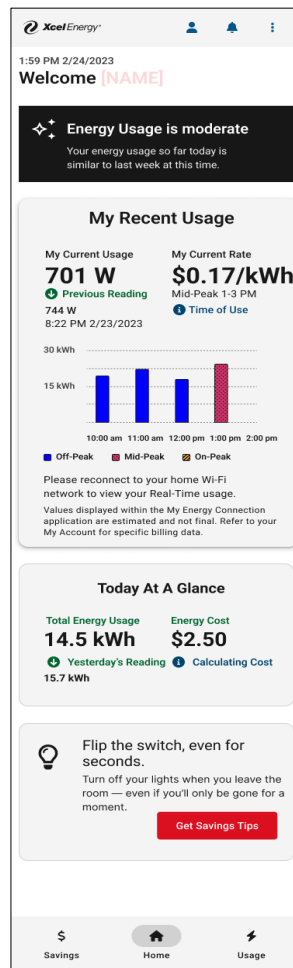
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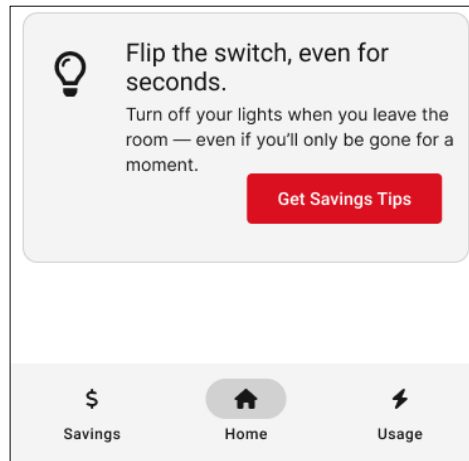
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## 2023 PLAN SETTLEMENT COMMITMENTS & TIMING



# ENERGY EFFICIENCY RATIO REDUCTION

**Mike Papula | Senior Energy Efficiency Engineer**



## **2023 CO Extension Filing Settlement Item No. 11**

# **Evaluation of Minimum Energy Efficiency Ratio For Variable Capacity Heat Pumps**

- **Xcel hosted two stakeholder meetings in April and May**
  - **Xcel Agreed to minimize the 2024-2026 Triennial qualifying EER criteria for the ccASHP measures**
    - Target is to reduce the minimum to achieve a net zero peak coincident kW savings
  - **Xcel agreed to look into the data being collected in the NREL cold climate air source heat pump study to analyze for summer EER performance**
  - **Industry participants in the meeting agreed to investigate data they are collecting through system installations**
    - The data is extensive and requires significant scrubbing in order to be presented to the stakeholder group
- **Additional feedback received since the meetings:**
  - **Clarify Xcel's definition of cold climate heat pumps**
    - The implication of this is that Variable Capacity is not the same as Variable Speed.
    - An inverter driven heat pump with variable speed capability will have better performance at part load than a 3 stage variable capacity heat pump
    - Sizing heat pumps for the heating load results in oversizing for the cooling load.
- **Can a requirement for AHRI 1380 Demand Response Level 2 provide a reasonable offset to minimum qualifying EER requirements**



# **SOURCING- RFP/THIRD PARTY**

**Michael Mangan | Category Manager – Sourcing and Purchasing**



# RFP/Third Party

- CO DSM RFPs are and will be posted on DSM website
  - [Colorado Demand-Side Management | Xcel Energy](#)
- Establishing of RFP evaluation scope for Encolor as an independent reviewer
  - Existing processes/peer best practices
  - Concurrent review of sample RFP processes



# **IQ GEOGRAPHIC PREQUALIFICATION**

**Tami Gunderzik | Team Lead – Equity and Inclusion**





# Geographic Prequalification Pilot

- 2023 DSM Plan Settlement Agreement
  - Prior to Strategic Issues order so does not include market tier approach
  - 60-day notice no later than end of 2<sup>nd</sup> Qtr 2023 (filed June 30<sup>th</sup>)
  - Budget incremental to what was presented in the 2023 DSM plan (SF Weatherization, MF Weatherization, NEEP)
  
- Test geographic prequalification approach
  - Advantages of marketing at the census block level
  - Appropriate model or elements to expand to additional geographic area
  - Propensity of customers to drive energy-efficiency upgrades
  - Ability to engage of trade to serve the pilot market

# 60 Day Notice – Framing the Pilot

## Pre-selected census tract

- Income Qualified residents
- Older homes – higher likelihood to need weatherization measures

## Provide audits to identify opportunities

- Free HES visit with audit
- Enhanced residential audit rebate
- Free business audits

## Pre-qualified trade pool

- Trained on pilot and market
- Bonus incentives for projects completed in the area

## Rebates and implementation support

- Non-profits => Non-profit Energy Efficiency Program (NEEP) rebates at bonus-level
- Other businesses => Market rate programs

## Tracking and reporting

- Participation numbers
- Impacts
- What worked/What didn't

# Implementation Plan – Making It Happen

- Census tract identification
- Identification of potential trade partners
  - Auditors
  - Insulation/air-sealing
  - HVAC
- Trade training development
- Finalization customer rebates/trade incentive delivery methodology
- Development of communications
  - Education/Outreach/Promotion
  - Administrative pieces (rebates)
  - Trade communications

# Next Steps

## Next 30 days

- Determine locations
- Compile potential trade list
  - Finalize HES/audit delivery
  - Explore opportunities for audit kits
  - Determine trade training content
- Identify local resources
- Develop communications plan



## 31 – 90 days

- Finalize timeline
- Develop collateral
  - Outreach
  - Rebates
  - Trade
- Hold Trade Trainings



## Launch

- Target -Jan. 1, 2024
  - 9-month pilot
- Evaluate pilot success both broadly and at the component level for future offerings

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# **IQ/DI OUTREACH AND ENGAGEMENT**

**Tami Gunderzik | Team Lead – Equity and Inclusion**



# IQ/DI Outreach Update

## New Quarterly DSM Roundtable Update for IQ and DI Community Outreach

### ➤ Q2 IQ Outreach delivered through Energy Outreach Colorado

- Delivered educational materials incorporating energy bill assistance and community solar information. NEEP participant materials target efficiency opportunities and information on understanding commercial energy bills
- Distribution to IQ includes leveraging partner agencies for direct distribution to MF residents and SF, outreach events, targeting past bill assistance participants, and social media (texts)

### ➤ Outreach and Engagement plan filed with 2023 DSM DSM/BE Plan

- Education – Energy saving and cost control
  - Additional translated materials
- Cross Promotion – provide comprehensive support
  - Bill Payment Assistance, Renewables, EV's, 3rd party resources, etc.
- Expand Outreach Channels (Community partners/Local events)
  - Xcel Energy RED Truck (Resources. Education. Delivered.)





# MIDSTREAM WATER HEATER

Tyler Peterson | Associate Product Portfolio Manager





## 2023 CO Plan Filing Settlement Item No. 14

- The Company agrees to add a midstream incentive approach (without eliminating customer incentives) for heat pump water heaters (“HPWHs”), developed in consultation with stakeholders.
- Met with stakeholders twice to discuss structure in attendance were; manufacturers, distributors, intervenors
- Possible issues and things to consider with program design
  - Double dipping
  - When to claim energy savings
  - Reporting and tracking of units
  - Cost effectiveness of program

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.

# COMMERCIAL BENEFICIAL ELECTRIFICATION (BE) MEASURES

**John Schneider | HVAC-R Product Portfolio Manager**



# BE Measures Update

- 2023 Plan Settlement Agreement
- Residential Style BE Measures for Commercial Customers
- Commercial BE Measures
- Midstream BE Measures
- Questions?

# Regulatory Requirement

The Company commits to continue actively studying prescriptive BE measures for commercial customers. The Company will file a 60-Day Notice to add prescriptive measures for equipment and use cases that it deems to be sufficiently repeatable and cost-effective not more than 60 days after a final Commission decision approving the Plan. At a minimum, the measures considered shall include:

- Measures that are identical to the 2023 residential BE measures, including, but not limited to, ducted and ductless air source heat pumps (including VRF systems);
- Heat pump water heaters; and,
- Dual-fuel and/or heat pump rooftop units

# New Residential Style BE Measures for Commercial Customers

- Air Source Heat Pumps(HP) \$1,700
  - 15+ SEER, 11.5+ EER, 9+ HSPF
- Cold Climate Air Source Heat Pumps \$2,200
  - 18+ SEER, 11.5+ EER, 9+ HSPF
- Ground Source Heat Pumps \$600/ton
  - 14.1+ EER
- Light Commercial HP Water Heater Tier 1 \$600
  - 2.8+ Uniform Energy Factor (UEF)
- Light Commercial HP Water Heater Tier 2 \$900
  - 3.5+ Uniform Energy Factor (UEF)
- Demand Response Ready Water Heaters +\$200

# New Commercial BE Measures

- Dual Fuel Heat Pump RTUs – retrofit only
  - <5.5 tons: 13.7+ SEER, 10.05 EER, \$1,150
  - 5.4 to 11.3 tons: 12.2+ SEER, 111.3+ EER, \$2,230
  - 11.4 to 19.9 tons: 12.1+ SEER, 11.1+ EER, \$3,520
  - 20 to 63.3 tons: 12+ SEER, 10.9+ EER, \$6,280
  - > 63.3 tons: 12+ SEER, 10.9+ EER \$16,760
- Heat Pump Water Heater  $\geq 30,000$  BTUH, \$2000
  - $\geq 3$  UEF or  $\geq 4.2$  COP
  - + \$200 if Demand Response Enabled
- VRF Heat Pump, \$1,700
  - 15+ SEER, 11.5+ EER, 9+ HSPF

# Midstream BE Measures

- Measures are currently in midstream program and will remain there with a required rebate pass down.
  - Mini Split Heat Pump: \$1,700
  - Cold Climate Mini Split Heat Pump: \$2,200
  - Water Source Heat Pump: \$75-\$250/ton
  - PTHP: \$60-\$180/ton

# BE Measures

- 60 Day notice posted on 7/31/2023
- 50% rebate bonus until 10/31/23, Application by 12/1/23.
- Training is being scheduled with trade groups.
- New Application, Info Sheet and Website Updates
- City of Denver incentives also available.

**John M Schneider, C.E.M.**  
**Xcel Energy**  
**Product Portfolio Manager**  
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# DR RFP FOR GAS/ELECTRIC

Stephen Mullaly | Product Developer

# DR RFI Overview

- RFI was agreed to in the 2023 Settlement
  - Primary focus was for Residential Electric Demand Response
  - Residential customers with smart meters
- Natural Gas Demand Response was later added
  - No smart meter requirement for natural gas
- As smart meters will be available to commercial customers soon, commercial ideas will be accepted for consideration
- All proposals should be technology neutral and provide a pay-for-performance reward structure
- Responses were due on August 7th



# OUTDOOR EQUIPMENT ELECTRIFICATION

Stephen Mullaly

# Outdoor Equipment Beneficial Electrification

- Outdoor Equipment, including lawn mowers and e-bikes, present an opportunity for consumers looking to reduce their carbon emissions
  - Gas powered lawn mowers account for a quarter of non-road gas emissions <sup>1</sup>
  - E-bikes have shown the potential to shift transit modes <sup>2</sup>
- Electrification typically comes with reduced operating costs and other health benefits
  - Reductions in oil changes, spark plugs, etc. compared with gas powered equipment
  - Reduced noise and exhaust exposure for the user and community
  - Exercise related to biking vs driving



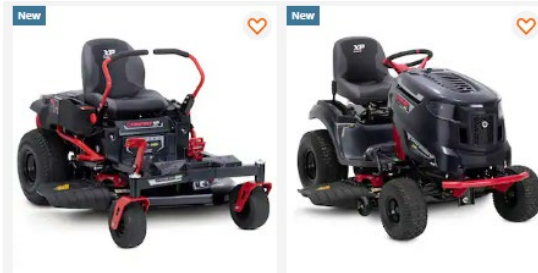
1. Saidani, Michael and Kim, Harrison (2021). Quantification of the environmental and economic benefits of the electrification of lawn mowers on the US residential market. The International Journal of Life Cycle Assessment

2. McQueen, Michael et al (2020). The E-Bike Potential: Estimating regional e-bike impacts on greenhouse gas emissions. Transportation Research Part D: Transport and Environment

# Outdoor Equipment Beneficial Electrification

Opportunities for electrification of Outdoor Equipment are available to both residential and commercial customer segments

- Filed in MN based on MN TRM 4.0
- Commercial mowers that meet various requirements may receive additional incentives through tax credits
- Some communities are passing noise ordinances that will require certain equipment to be electrified



# Outdoor Equipment Beneficial Electrification

- Snow blowers, weed whackers, leaf blowers also have potential for inclusion in an outdoor equipment program
- Evaluating these measures for inclusion in next DSM plan



Share your product ideas

[www.xcelenergy.com/productideas](http://www.xcelenergy.com/productideas)



# DSM Regulatory Contacts

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Regulatory Policy Specialist

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Regulatory Administrator

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