PANEL 1

Utility Challenges & Opportunities
Beneficial Electrification

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Xcel Energy
Dominion Energy

COVID-19 Response

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SRP
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Rocky Mountain Power
TRANSITIONING NATURAL GAS FOR A LOW-CARBON FUTURE

Mark Schoenheider,
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November 19, 2020
COMPREHENSIVE STRATEGY TO REDUCE EMISSIONS ACROSS THE SUPPLY CHAIN

Producers and Suppliers

Partnering to encourage transparency and disclosure

Exploring opportunities to drive best practices among our suppliers

Requesting information on methane intensities and best practices

Xcel Energy System

Improving pipelines

Participating in EPA Natural Gas STAR, Methane Challenge

Participating in ONE Future

Connecting Renewable Natural Gas

Customer

Increasing conservation

Developing voluntary beneficial electrification programs

Offering low-carbon supply options
FOCUS ON BENEFICIAL ELECTRIFICATION

• Defined in CO SB 19-236 Section 40-3.2-106(5)

• More generally – Electrifying natural gas equipment and appliances when the switch to electricity:
  • Reduces overall costs
  • Reduces green house gas emissions
  • Optimizes the use of the power grid
COLORADO DSM FILING DETAILS

- Requested a waiver for fuel switching prohibitions
- Incorporate water heating and space heating measures into the gas DSM portfolio
- Include measures across all market segments and delivery channels
- Include market transformation activities as well as traditional equipment rebates
WHAT WE ARE LEARNING

• Multiple parties have filed testimony in support of the BE additions
• Many want a more aggressive approach
• Most applications reduce carbon
• Most applications increase customer costs
• Controlled applications can provide grid benefits
Dominion Energy Utah 2021 ThermWise® Programs

- Company filed for 2021 energy efficiency budget of $27.1M with the Utah PSC in October
- Filing included proposal to introduce a rebate for high efficiency dual-fuel heating systems in the existing homes, new homes, and business programs
  - Dual-fuel system is defined as a $\geq 14$ SEER and $\geq 9.0$ HSPF heat pump combined with a $\geq 95\%$ AFUE furnace
  - $\$800$ proposed rebate for single family/businesses
  - $\$450$ proposed rebate per unit for multifamily properties
- Company estimate is that natural gas usage in a typical home will decrease by 29 dekatherms (Dth)
  - Utah average annual usage is 80 Dth
  - 60 Dth space heating / 20 Dth water & other
- Coordination with Rocky Mountain Power and internal work on a dual-fuel heating system rebate began in 2017
- Discussions with regulators began in September 2020
  - Messaging centered on the best fit for climate zone (Figure 1)
- 2021 budget includes funds for training HVAC trades
- Commission order expected in December
COVID-19 Program Response

2020 SWEEP Workshop
November 19, 2020
Setting the Stage – March 2020

**Sustainability Framework Transition**

- Driving towards the April 30th, 2020 finish line for SRP’s FY20 program year, as well as SRP’s legacy 20% by 2020 Sustainable Portfolio Goal

  - Preparing to launch a revamped program portfolio in May to target SRP’s new 2035 Sustainability Goals
    - Conducted RFP in Fall 2019 for 10 new/redesigned programs, including several key direct install programs to expand engagement with Income-Qualified customers
Program Response – Triage

**Triage Immediate Challenges**

- Protect staff, customers, and community
- Support ongoing activity to close out SRP’s FY20

**Example: Virtual Inspections / Prorated Incentives**

- Virtual inspection protocols helped close out completed projects and enabled progress for projects requiring pre-inspections
- 75/25 prorated incentive developed for large custom projects where virtual inspections wouldn’t work
  - 75% payment upon project completion, 25% after final inspection
- Helped close projects & avoid incentive delays
Program Response – Adapt

Adapt Customer-Centric Programs

- Modify messaging and outreach efforts to recognize and support changing customer needs
- Redesign traditional direct-install programs

Example: Virtual Home Energy Assessment

- Transitioned IQ-focused, in-home assessment with direct install measures to be delivered virtually
  - Pre-assessment data collection guidebook
  - Video chat to learn more and discuss findings
  - Special offers discussed when qualified
  - Custom DIY kit assembled and delivered
Program Response – Support

Support Trade Ally Activities

- Streamline and simplify processes where possible
- Add new measures to meet evolving needs

Example: Ultraviolet Germicidal Irradiation (UVGI)

- Customers and trade allies looking to address COVID-19 related indoor air quality concerns
- High dose UV-C light in HVAC ductwork has proven effective in healthcare industry for decades
- UVGI itself is not an efficiency measure, but can help address air quality concerns while mitigating energy impacts of excessive supplemental outdoor air mixing in AZ climate
Program Response – Evolve

*Evolve programs to meet changing needs*

- Explore alternate delivery models for direct install programs
  - Often serve customers that need most help
  - Present greatest risk of suspension
- Diversify program messaging and approach to align with unique challenges of each customer segment
- Consider new, non-traditional measures to support trade allies and their efforts to engage customers
The Power of Partnerships
Powerful Partnerships

NV Energy is committed to a reliable, affordable and sustainable energy future. We partner with our customers to help them incorporate clean energy solutions into their workplace, home space and lifestyle. Together, we’re working to enhance the well-being of our communities and environment for generations to come.

- Serve approximately 90% of Nevada
  - Nevada Power Company – since 1906
  - Sierra Pacific Power Company – over 150 years
- More than 1.4 million customers and 2,470 employees statewide
- Provide PowerShift products and services to help our business and residential customers increase their energy efficiency and save money
- Provide affordable, safe and reliable energy
- Incentives for electric vehicle charging infrastructure and solar storage
- Committed to environmental stewardship and sustainability
COVID-19 Response

Nevada has been one of the hardest hit states economically by the COVID-19 pandemic.

• NV Energy took proactive steps to address the implications of the pandemic, and to mitigate its impact on customers and reduce the chance for the spread of the virus:
  • Stopped in-home appointments for assessments and smart thermostat installations.
  • Froze on-site inspections for other PowerShift programs such as lighting, pools, and business and commercial services.
  • Limited face-to-face interaction to lessen potential spread of virus.

• The in-person visits restarted on June 1, 2020, and following Governor Sisolak’s Nevada re-opening to phase 2:
  • Program staff follow field and safety protocols including the wearing of masks during all visits and maintaining social distancing practices.
  • Staff leave any stores where social distancing is not possible or they identify health or safety concerns.
  • The team continues to follow local and state rules as they are released or updated.
COVID-19 Response

• Increased Incentives for Business Energy Services:
  • Additional 10-20% incentive for retrofit projects completed in 2020. The additional bonus is based on the amount of energy saved; 10% bonus for projects with a savings between 100,000-250,000 kWh, 15% for 250,001-750,000 kWh and 20% for project over 750,000 kWh.
  • The incentive bonus is capped at $20,000 per project.

• Schools Program Focus – while students not attending in-person:
  • Increase in engagement with school districts with low and no cost approaches to energy savings by targeting operational improvements and behavioral modifications, while continuing to encourage in-house retrofit projects that have demonstrated rapid payback potentials.

• Increased Low-income Focus:
  • Launched standalone low-income program for appliance replacement – Qualified Appliance Replacement.
  • Increased focus on low-income component of the Residential AC program for tune-ups.
Thank You
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What did we do?

Created portfolio of behind-the-meter DERs
What did we learn?

Customer DERs delivering new grid value at scale

CAISO resource problem on August 14 was more about afternoon ramping after solar drops and not system peak.

Over 25 MW DR contributed from APS customers.
Where are we going next?

Scaling thermostats and adding more DER classes
Scaling Smart Thermostats

- **DR Pre-Enrolled Devices**

- **FREE Google Nest Thermostat**
  - $30 instant rebate
  - $50 one-time Cool Rewards enrollment rebate
  - $25 Summer 2021 participation rebate
  - $25 partner rebate (Google / EnergyHub)
Rocky Mountain Power – Grid Innovations
November 19, 2020
Smart-Grid Demand Response Program

- 107,000 A/C’s enrolled in program
- Up to 200 Megawatts

Program Benefits

- Real-time resource
- Peak load management
- Frequency response
- Flexibility
- Contingency reserve
Rocky Mountain Power - Battery Demand Response

- Soleil community located in Herriman, Utah
  - 600 apartments for rent with options for one, two and three bedrooms
  - 5.2 MW solar, ~5 MW batteries
  - All electric complex

- Coordination between utility, developer, and battery manufacturer

- Utility control of batteries for smart grid applications
  - Peak load management
  - Real-time demand response
  - Frequency response/contingency reserve
  - Daily load cycling

- Battery incentive program
  - NEW program approved in Utah - October 2020