AGENDA

• 1:00 – 1:15 p.m. Welcome and DSM Regulatory Updates

• 1:15 – 2:00 p.m. DSM Programs: Q4-2019
  » Q4 Achievement Update
  » Business Programs
  » Residential and Low-Income Programs

• 2:00 – 2:30 p.m. Product Development Updates

• 2:30 – 2:45 p.m. – Networking Break –

• 2:45 – 3:45 p.m. EMI Evaluation Presentation
60/90-Day Notices

- Cooling Efficiency Update
  - Posted: 11/15/2019
  - Implemented: 12/17/2019

- Lighting Efficiency and Small Business Lighting Update
  - Posted: 11/15/2019
  - Implemented: 12/17/2019

- Single-Family Weatherization Update
  - Posted: 11/15/2019
  - Implemented: 12/17/2019

- Electric Vehicle Critical Peak Pricing
  - Posted: 12/3/2019
  - Implemented: 1/18/2020

- Peak Day Partners
  - Posted: 12/3/2019
  - Implemented: 1/4/2020

- Commercial Refrigeration Update
  - Posted: 12/16/2019
  - Implemented: 1/18/2020

- Energy Star New Home Update
  - Posted: 12/16/2019
  - Implemented: 1/18/2020

- Evaporative Cooling Update
  - Posted: 12/16/2019
  - Implemented: 1/18/2020
60/90-Day Notices

• Home Performance with Energy Star Redesign
  - Posted: 12/16/2019
  - Implemented: 1/18/2020

• Thermostat Optimization Update
  - Posted: 12/16/2019
  - Implemented: 1/18/2020
DSM Regulatory Calendar

• Upcoming Meetings – Save the Date!
  – Q1-2020 DSM Roundtable Meeting:
    1800 Larimer
    Wednesday, May 13, 202

• Upcoming Filings
  – 2019 Status Report – April 1, 2020
  – 2021-2022 DSM Plan – July 1, 2020
DSM Achievements
Q4-2019

Mark Schoenheider
Manager, Customer Energy Solutions
2019 Q4 Achievement Highlights (preliminary)

Electric Portfolio
• 503 GWh (100% of 502 GWh Target)
• 92.8 MW (103% of 90 MW Target)
• $82.6M (89% of $92.4M Budget)

Business Programs
• 324 GWh (94% of Target)
• Lighting Eff/Small/Street 166.5 GWh (85%)
• New Construction 59 GWh (150%)
• Strategic Energy Management 34 GWh (118%)

Residential / LI Programs
• 179 GWh (113% of Target)
• Home Lighting & Recycling – 117 GWh (131%)
• ENERGY STAR Homes – 4.7 GWh (153%)
• L.I. Multifamily – 2.1 GWh (112%)

Gas Portfolio
• 652,764 Net Dth (102% of Blended Target of 637,448)
• $14.6M Spend (106% of $13.8M Blended Budget)

Business Programs
• 151,906 Net Dth (93% of Blended Target)
• New Construction 102,903 Dth (132%)
• Heating Efficiency 16,769 Dth (85%)

Residential / LI Programs
• 500,858 Net Dth (106% of Blended Target)
• ENERGY STAR Homes – 102,245 Dth (113%)
• Residential Heating – 69,970 Dth (126%)
• L.I. SF Weatherization – 52,774 Dth (110%)
Marketing Campaigns & Trade Outreach

**Business**
- Colorado Association of Mechanical Plumbing Contractors (CAMPC) Trade Event sponsorship
- Ambient Energy’s Stellar Celebration, 15th Anniversary (Energy Design Assistance trade partner)
- Two Benchmarking Workshops in Fort Collins, with Program Manager, @ Chamber of Commerce
- Building Operators Certification Workshop, IECRM Facility, Measuring & benchmarking energy performance
- (Ongoing) Energize Denver Advisory Group Meeting
- IECRM Quarterly Industry Partner Meeting
- Colorado Business Economic Outlook Forum, Dec. 9 in Denver
- EEBC Quarterly Membership Meeting Dec. 12

**Residential**
- 2019-2020 DSM
  - StayWarm campaign email sent to customers, promoting Insulation and Air Sealing, Water Heating, and Heating solutions and rebates [www.xcelenergy.com/staywarm](http://www.xcelenergy.com/staywarm)
- Low Income Kits
  - Final email of 2019, promoting low income kits, sent out to qualifying customers
- Energy Feedback
  - Web banners promoting Residential Cooling, Home Energy Squad, and Refrigerator Recycling within the My Energy Portal
- Water heaters
  - In partnership with Lowes and AO Smith, a targeted direct mail piece featuring heat pump water heaters was sent out to increase customer awareness of available instant rebates.
DSM Business
Q4-2019 Highlights

Jon Packer
Manager, Customer Energy Solutions
Business Lighting Efficiency & Small Business Lighting

- C&I Lighting Efficiency closed 2019 about 25% short of target which directly correlates to the NTG impact from recent evaluation.

- Small Business Lighting closed 2019 slightly under target and overall had a great year.

- Top performing measures in 2019: LED Tubes, LED screw-in lamps, high-bay fixtures, troffers, and area lighting.

- LED Street Lighting: Xcel Energy-owned street lights targeted to municipalities on Street Lighting Service (SL) Rate
  - Completed over 27,000 units in 2019 with Denver & Westminster participating.
Multifamily Buildings (Electric & Gas savings)

• Completed building assessments for buildings that included 3400+ residential units
• Completed direct installation of energy saving measures in more than 3,600 residential units, including 21,000+ LEDs, 2,200 gas-saving measures (kitchen aerators, bathroom aerators, and showerheads)
• Savings through Q4:
  - 21,617 Dth
  - 9,409,312 kWh
Business New Construction (Elec. & Gas)

• Influences builders, architects, engineers to build with energy efficient equipment and systems

• 156 Total Projects Completed in 2019
  – Energy Design Assistance (EDA) 85 Projects
  – Energy Efficient Buildings (EEB) 71 Projects

• Trends affecting 2019 participation/savings
  – Improved vetting of final vs. planned project costs impacts cost-effectiveness
  – New Construction Lighting available with EEB

• Fast-growing sectors
  – Multifamily building boom, especially Denver
  – Education and Health Services
  – Leisure and Hospitality

• Continuing into 2020, ongoing education with our Energy Modeling Consultants to help deliver the ideal Energy Efficient Strategies to our customers

• Implementing additional DSM Products like Demand Management
DSM Residential, Low Income
Q4-2019 Highlights

David Hueser
Team Lead, Customer Energy Solutions

Rob O’Connell
Product Manager, Customer Energy Solutions
ENERGY STAR® New Homes (E&G savings)

2019 Program Metrics:

<table>
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<tr>
<th>Metric/Achievements</th>
<th>2019</th>
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<tr>
<td>Qualifying Homes</td>
<td>5,121</td>
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<tr>
<td>Average Home Size</td>
<td>3,317 sq. ft.</td>
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<td>Average HERS</td>
<td>58</td>
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<td>2015 IECC or Higher</td>
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<tr>
<td>ENERGY STAR Bonus</td>
<td>1,287</td>
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<td>Dth</td>
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<td>kWh</td>
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Q4 activity:
• Started seeing participation in measures added for 2019/20 biennial DSM Plan
  – Smart thermostats
  – Heat pump water heater measures
• Builders will continue to spec qualifying equipment for these measures in 2020.
Home Performance with ENERGY STAR®

• 60 day notice was posted in Q4 for the initial redesign
• Key changes to the product:
  – Division of “Required” and “Optional” measures was removed to reduce participation barriers
  – Customers are still required to complete a blower door audit or Home Energy Squad Plus visit in order to be eligible
  – Customers will receive the standard prescriptive rebate for all installed measures. If a customer installs three or more qualifying measures, they will receive an additional bonus rebate of 10% of the prescriptive rebate amount for each measure completed within the two year time period. The bonus rebate is a one-time offer for each measure
• Additional enhancements will be made to the product through 60 day notices or the 2021/2022 filing
Low Income Program, 2019 Achievement, Trends

Program
- 77,251 Dth Gas target 8% higher than 2018, +$467K budget, Actual 78,078 Dth (101%) on $3.9M spend (101%)
- Higher budgets for participant education, health, safety, comfort and other improvements.
- 8 GWh Electric savings target 44% higher than 2018, Actual 7.5 GWh (94%) on $3.9M spend (94%)
- 1.3 MW Demand reduction target up by almost 80% vs. 2018, Actual 1.1 MW (80%)

Energy Savings Kit
- Significant participation improvement vs. prior year
- 13,951 Dth, 96% of target on 74% spend
- 2.1 GWh, 82% of target on 71%

Non-Profit
- Met higher forecast participation
- 1,779 Dth, 46% of target on 62% spend
- 1.7 GWh (102%), 420 kW (110%) $1.1M spend (100%)
- L.I. senior services, treatment centers, job training

Kits: more qualifying customers mailed, emails with personalized URL, one-click response

L.I. Non-Profit
Photo: Ready to Work
Aurora, CO
Home Energy Squad 2019 Update
Home Energy Squad
Home Energy Squad Plus

- **Convenience**: Squad visit and Energy Audit in one trip
- **Instant impact**: immediate savings with DI equipment
- **Future guidance**: full audit report with recommendations
- **Continued support**: Energy Advisors provide ongoing coaching and assistance

Available equipment & services:
- LED bulbs
- Thermostat installation & programming
- Door weather stripping
- Showerheads & aerators
- Water heater temperature check
- Full home energy audit
- Blower Door test
- Combustion safety test
- Carbon Monoxide check
- Infrared imaging
Smart Thermostats

- Ecobee smart thermostats available for purchase, free installation
- Free Ecobee 3 Lite available with enrollment in AC Rewards
Partner Communities

- Buy-downs driving participation
- Westminster, Wheat Ridge have active promotions
- Centennial coming soon
- Marketing coordination driving awareness
- Squad staff attending community events
Future Enhancements

- EV Advising
- TOU “tune-ups”
- AMI meter engagement
- DR program enhancements
DSM Pilot and Product Development
Q4 2019 Highlights

Thor Bjork
Product Developer, Customer Energy Solutions
New Rate for Business EV Charging

**Background:**
- Designed as alternative to SG rate & to reduce barriers to commercial EV adoption
- Replaces demand charges with TOD and seasonal energy charges
- Includes a CPP rate of $1.50/kWh during peak events
- Only EV loads and associated ancillaries allowed on rate
  - Separately metered
  - Net Metering available

**Status:**
- 60-Day notice filed in December
- Rate is now active
- 1 active customer and more interest
Business Smart Thermostat Demand Response

**Background:**
- Filed measures within all direct installation programs to expand thermostat DR into commercial and multifamily sector
- Impacts proved to be roughly twice that of residential thermostats

**Status:**
- 60 day notice filed in January
- Set to launch in March
- Will file additional notice to align programs with ecobee’s optimization product eco+
Charging Perks pilot

• Background:
  – A smart charging pilot that will manage when a residential customer chargers their electric vehicle by sending a schedule directly to the EV

• Status:
  – In contract negotiations with four automakers
  – Automakers are developing software solutions for participation in the pilot
  – Targeting a Q2 pilot launch pending contract agreement
Residential Battery Demand Response pilot

• **Background:**
  – A pilot to test the ability of residential, customer-owned batteries to respond to demand response signals to reduce peak load, charge on demand, and shift solar export

• **Status:**
  – In contract negotiations with two vendors
  – Targeting a Q2 pilot launch pending contract agreement(s)
Product idea submissions

Share your Product Ideas:

www.xcelenergy.com/productideas
Codes and Standards Research
Q4 2019 Update

Julie Herman
Product Developer, Customer Energy Solutions
Codes & Standards Research Project

• **Background:**
  – Exploration of utility compliance programs and the landscape of codes and standards in CO and MN

• **Highlights of Phase 1 Research:**
  – Building code must be enforced if it is adopted
  – A significant number of buildings and/or measures don’t meet code
  – 84 jurisdictions have no code or a pre 2003 code
  – Largest cities have IECC code 2009 or better
Utility Codes & Standards Programs

Possible Pathways

- Code Compliance
- Advocacy & Standards
- Other

Considerations

- Possible Approaches
- Regulatory Considerations
- Savings Quantification
- Documentation
- Other
Phase 2:
- Explore stakeholder goals, barriers, and opportunities
- Explore market potential
- Recommend program model
- Develop cost benefit savings estimation methodology

Status:
- Project kick off - October
- Completed phase 1 - January
- Scope of Work for phase 2 - February
- Complete Phase 2 - April
- Update at Q2 Roundtable - May

Codes & Standards Research and Filing
Geo-Targeting Pilot - Q4 2019 Update

Adam White
Team Lead, Customer Energy Solutions
Purpose

- Defer capital investment to electric grid through targeted DSM
  - Specific transformer & distribution feeder
  - Demand response & energy efficiency
Timeline

- **Existing Customers**
  - Identify New A/C & Smart Thermostat Customers
  - Complete Marketing Planning & Initiate Campaign

- **New Customers**
  - Q3 - Integrate ESNH Product into New Regional Development
  - ESNH Implementation

- **DR**
  - Q2/Q3 - Test Saver Switch & Smart Thermostat
  - Q2/Q3 - Test Saver Switch & Smart Thermostat

- **2019-2020 Geotargeting Pilot**
  - Target Area Development Begins

- **Timeline**

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Today’s Topics

• Who is our customer?
• How will we achieve our goal?
• What have we learned?
• Our next actions
Who are our customers?
Who are our customers?

Customer Distribution by CAMEO Segment (Count Only)

- American Aristocracy: 41%
- Diverse Communities: 40%
- Dynamic Neighbourhoods: 6%
- Enterprising Households: 11%
- Exclusive Society: 2%
- Prosperous Families: 0%
- Blank: 0%

Demand Management Penetration

- Saver Switch: 71%
- Smart Thermostat: 27%
- None: 2%
How will we achieve our goal?
How will we achieve our goal?

• Smart thermostats
  – High demand mgmt. benefits
  – Customer choice & engagement

• Portfolio partnerships
  – Xcel Energy Store
  – Home Energy Squad
  – Home Energy Squad+
  – Evaporative Cooling
  – Residential Heating & Cooling
  – Residential New Construction
What have we learned?

• Electric feeders don’t match neighborhood development
• Planning of load growth needs flexibility
• Marketing planning could occur in concert with capital investment deferment planning
Our next actions

• Expand builder/developer engagement
• Complete marketing plan & launch campaign
• Engage with operations team to plan for summer 2020
- Networking Break -