



## Q4-2019 COLORADO DSM ROUNDTABLE

02.12.2020

# 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

# **DSM Regulatory Updates**

## **Q4-2019**

**George McGuirk**  
**DSM Regulatory**

# 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: 1/4/2020*
- 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, 15<sup>th</sup> 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



Photo: Holophane Lighting  
LED High Bay fixture



Photo: Acuity Brands  
LED Troffer fixture

# 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



Photo: 1710 Platte Office Development



Photo: Crescent Park West

# **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:

Metric/Achievements	2019
Qualifying Homes	5,121
Average Home Size	3,317 sq. ft.
Average HERS	58
2015 IECC or Higher	60%
ENERGY STAR Bonus	1,287
Dth	102,245
kW	981
kWh	4,735,209



## 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



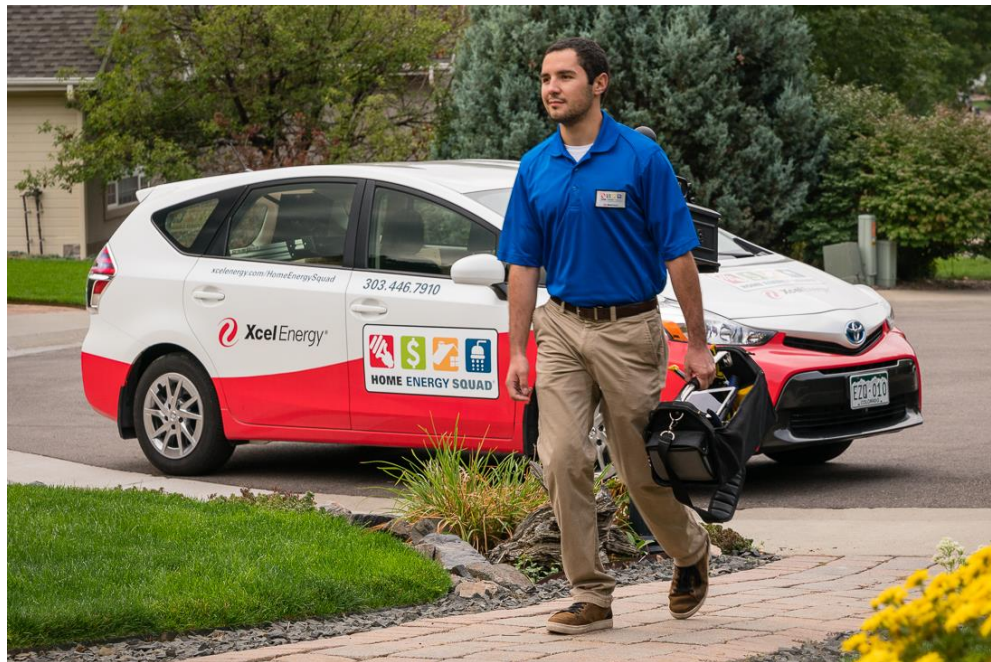
Kits: more qualifying customers mailed, emails with personalized URL, one-click response



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

# **Codes and Standards Research Q4 2019 Update**

**Julie Herman**  
**Product Developer, Customer Energy Solutions**

# Codes & Standards Research Project

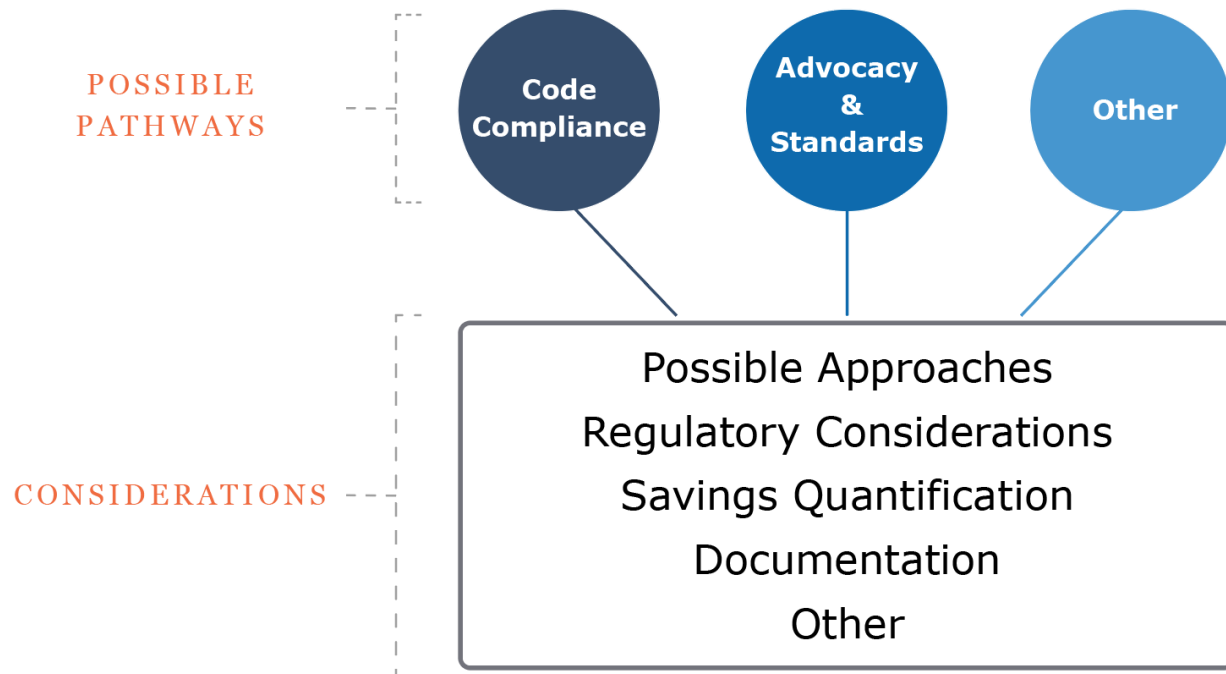
- **Background:**

- 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





# Codes & Standards Research and Filing

- **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

# **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

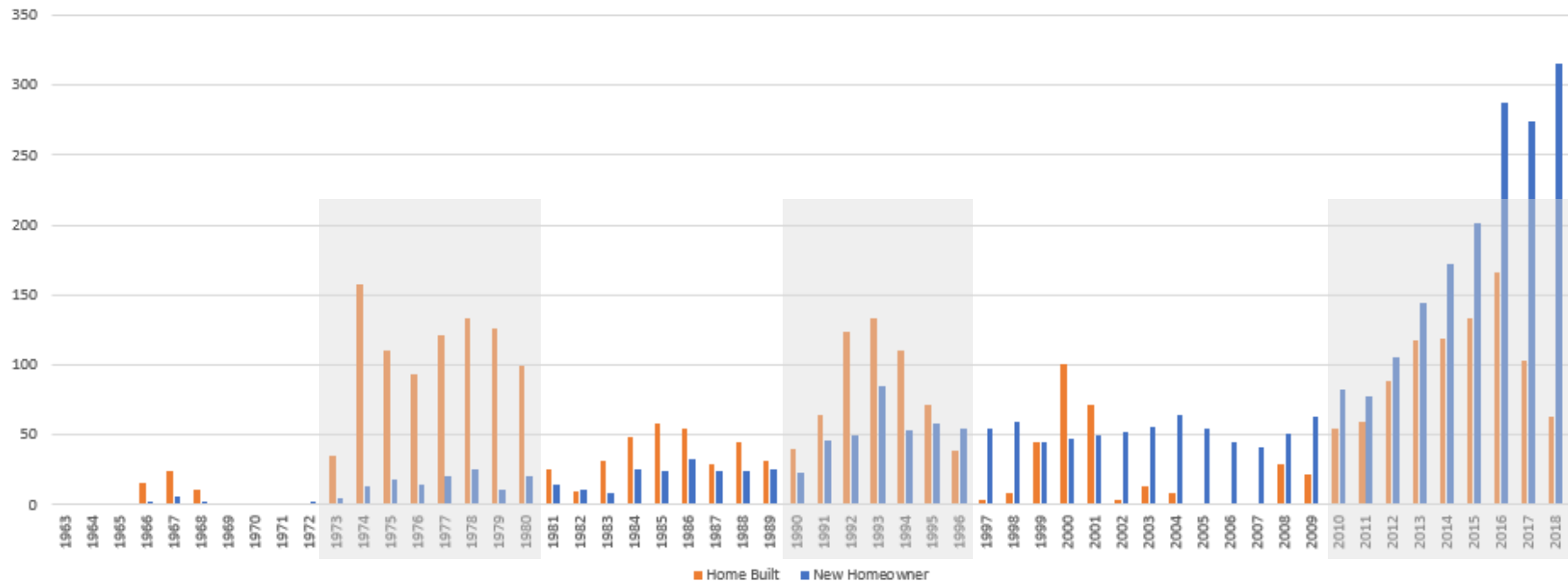
# Timeline

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		PLANNED Infrastructure Replacement		DEFERRED Infrastructure Replacement
Timeline	2019	2020	2021	2022	2023	2024	2025

# Today's Topics

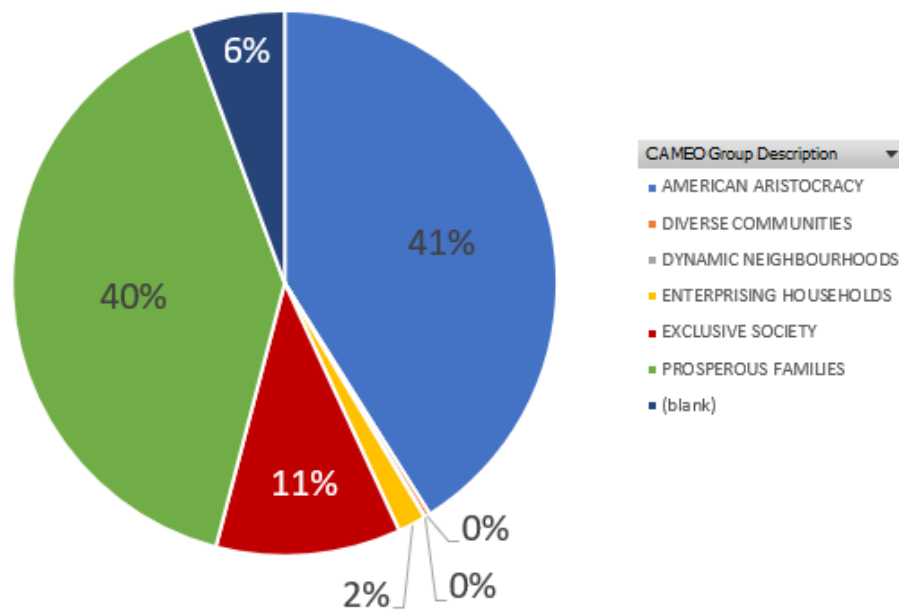
- Who is our customer?
- How will we achieve our goal?
- What have we learned?
- Our next actions

# Who are our customers?

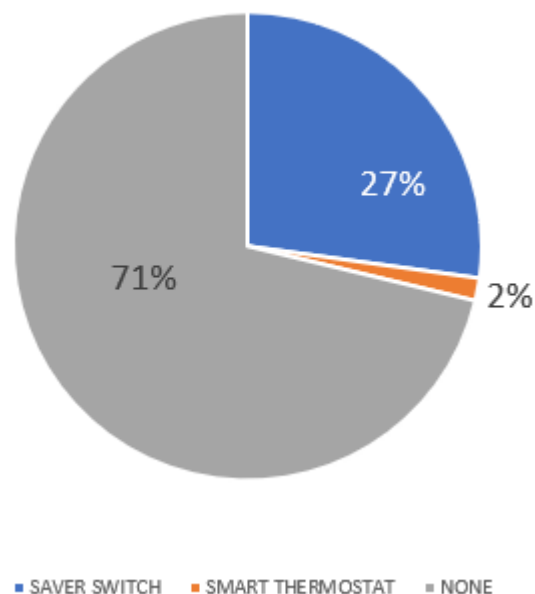


# Who are our customers?

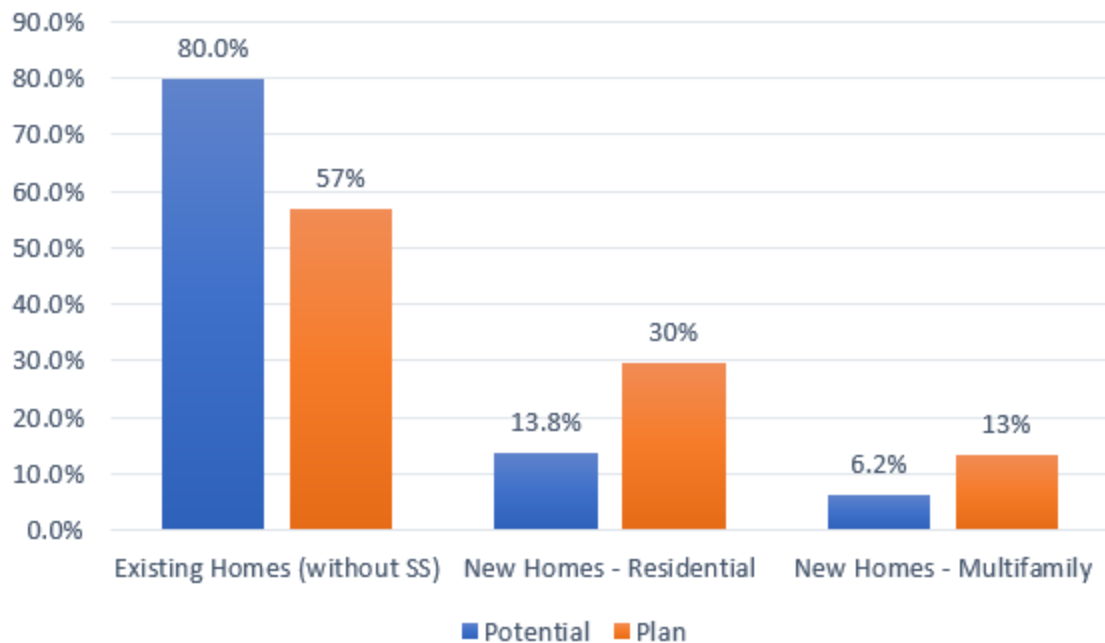
Customer Distribution by CAMEO Segment (Count Only)



Demand Management Penetration



# How will we achieve our goal?





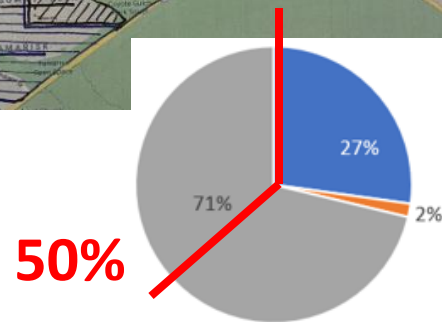
# How will we achieve our goal?



- 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* -



