

# Q2-2016 Colorado DSM Roundtable

**August 17, 2016** 



### **AGENDA**

• 1:00 – 1:30 p.m. Welcome and DSM Regulatory Updates

• 1:30 – 2:15 p.m. DSM Programs: Q2-2016

» Q2 Achievement Update

» Business Programs

» Business Financing Deep Dive

» Lighting Efficiency and Small Business Lighting Update

» Residential and Low-Income Programs

2:15 – 2:30 p.m. -- Networking Break –

• 2:30 – 3:00 p.m. DSM Pilot Updates: Q2-2016

• 3:00 – 3:30 p.m. DSM Product Development: Q2-2016

• 3:30 – 4:00 p.m. DSM Product Express Update: Q2-2016



# DSM Regulatory Updates Q2-2016

Shawn White DSM Regulatory



### 60/90-Day Notices

- ENERGY STAR Retail Products Platform (ESRPP) Pilot
  - Posted: Dec. 2, 2015
  - Implemented: Jan. 1, 2016
- Home Lighting & Recycling
  - Posted: Jan. 6, 2016
- ECMs
  - Posted: Jan. 13, 2016
  - Implemented: Feb. 13, 2016
- LED Street Lights
  - Posted: Feb. 2, 2016
  - Implemented: April 1, 2016
- Data Center Efficiency
  - Posted: Feb. 15, 2016
  - Implemented: Mar. 16, 2016

- Home Lighting & Recycling (Evaluation)
  - Posted: Feb. 5, 2016
  - Implemented: April 6, 2016
- Business Lighting Efficiency (Evaluation)
  - Posted: February 19, 2016
  - Implemented: March 22, 2016
- Business Lighting Efficiency and Small Business Lighting
  - Posted: May 26, 2016
  - Implemented: August 1, 2016



# 2017/2018 DSM Plan Forecast & Targets

| 2017        | GWh<br>Savings | Demand<br>Response<br>(MW) | Demand<br>Reduction<br>from EE (MW) | Electric<br>MTRC | Dth Savings | Natural Gas<br>MTRC |
|-------------|----------------|----------------------------|-------------------------------------|------------------|-------------|---------------------|
| Goal        | 400.0          | 620                        | 65.0                                | >1.0             | n/a         | >1.0                |
| Plan Target | 401.3          | 621                        | 59.4                                | 1.26             | 636,078     | 1.49                |

2017 Budget Proposed: \$80.3 M (Elect EE), \$19.2 M (DR), \$13.1 M (Gas EE)

| 2018        | GWh<br>Savings | Demand<br>Response<br>(MW) | Demand<br>Reduction<br>from EE (MW) | MTRC | Dth Savings | Natural Gas<br>MTRC |
|-------------|----------------|----------------------------|-------------------------------------|------|-------------|---------------------|
| Goal        | 400            | 640                        | 65                                  | >1.0 | n/a         | >1.0                |
| Plan Target | 401.6          | 646                        | 57.9                                | 1.31 | 573,136     | 1.58                |

2018 Budget Proposed: \$77.7 M (Elect EE), \$20.6 M (DR), \$12.8 M (Gas EE)



## DSM Regulatory Update (Con't.)

- 2017/2018 Plan 210-Day Decision
  - March 24, 2017
- Next Roundtable Save the Date!
  - Q3-2016 DSM Roundtable Meeting:

Wednesday, November 9, 2016



### DSM Achievements Q2-2016

David Hueser, Team Lead, Customer Solutions



## 2016 Q2 Achievement Highlights

#### **Electric Portfolio**

- 194 GWh (48% of 407 GWh Goal)
- 33.8 MW (38% of Target)
- \$36.3M (39% of Budget)

#### **Business Programs** (% of kWh Target)

- EMS 79% of Target
- Small Business Lighting

   73% of Target
- Motors & Drive Efficiency 53% of Target
- Self Direct 67% of Target

#### Residential / LI Programs (% of kWh Target)

- ENERGY STAR New Homes 65% of Target
- Home Lighting & Recycling 87% of Target
- Residential Heating 66% of Target

#### **Gas Portfolio**

- 213,868 Net Dth (35% of 615,040 Dth Goal)
- \$5.9M Spend (43% of Budget)

#### **Business Programs** (% of Dth Target)

- Custom Efficiency 92% of Target
- EMS 63% of Target
- Recommissioning 60% of Target

#### Residential / LI Programs (% of Dth Target)

- Energy Feedback Residential 58% of Target
- Insulation & Air Sealing 70% of Target
- Water Heating 147% of Target
- LI Multifamily Weatherization 52% of Target



# Marketing Campaigns & Outreach

#### **Business**

- Heating Efficiency customer bonus, trade incentive extended to 12/31
- Recommissioning customer implementation bonus, trade incentive
- Data Centers: re-engaging study providers
- Brewers Campaign: refrigeration, process packaging, compressed air
- Energy Analysis Earth Day promotion
- CAHED Trade Show, Sport's Authority Field
- Apartment Association Trade Show
- CD Jones Open House
- Energy Expo and Wire-Off Competition

#### Residential

- ENERGY STAR New Homes: continued, free "Selling High Performance" training classes for sales agents and home raters.
- Home Lighting: 17 May and June events including Rockies promotion 6/28
- Energy Efficiency Showerhead spring mailings and digital campaigns
- Evaporative Cooling customer benefits, technical training, trade overview
- Home Energy Squad email, social media outreach, LED and discount promotions
- Saver's Switch spring ramp up, digital campaigns



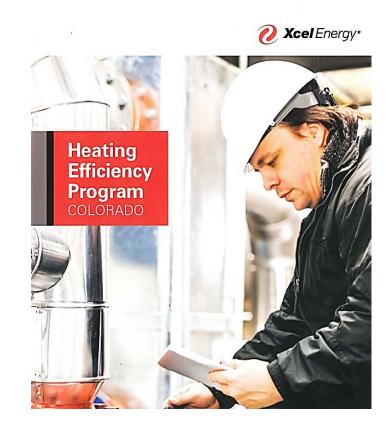
# **DSM Business Program Q2-2016 Highlights**

Kim Spickard Team Lead, Customer Solutions



## Heating Efficiency Outreach

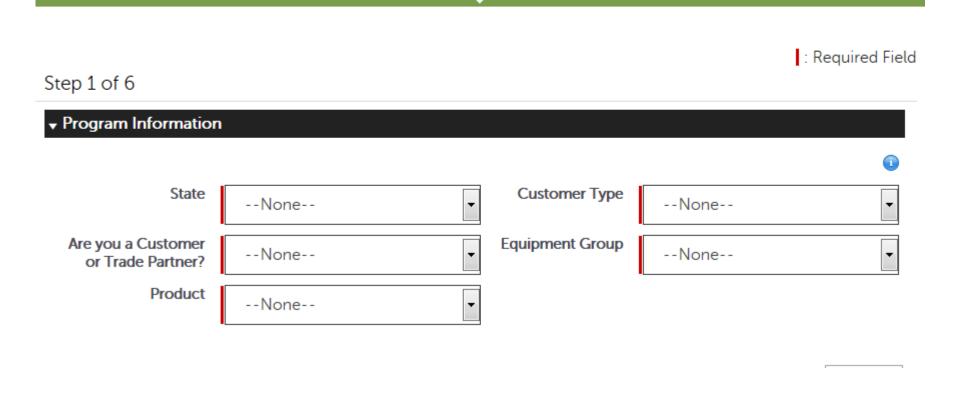
- Customer bonus (25%) & trade incentive (10%) until year end
- Promoting new customer Heating Efficiency Guide
- Specifically targeting top gas consuming customers
- Planning 2 fall trainings:
  - Technical Training for Trade Partners
  - Customer Heating Efficiency Best Practices
- Continuing collaboration w/CO State Boiler Inspectors Office
  - Mutual customer benefits for rebates & boiler safety
  - Direct outreach to their trade partner network
- Now seeing participation in ECMs for furnace fans (new measure launched late 2015)





### Digital Application Project Launched

### Rebate Application





## Platte River Power Authority

### Colorado Midstream Cooling Program

The midstream Cooling Program encourages distributors to stock and upsell eligible high efficiency equiptment

### Participating Utilities





Estes Park Light and Power Fort Collins Utilities

Communications

Loveland Water and Power

Platte River Power Authority



### Colorado Midstream

Estes Park Light and Power

Fort Collins Utilities

Longmont
Power &
Communications

Loveland Water and Power

Platte River Power Authority





# **Business Financing Program**

Bob Macauley Channel Manager, Customer Solutions



- Xcel Energy knows that our business customers may need assistance in finding the right source of capital to invest in energy efficiency upgrades.
- Customer feedback has shown that finding the right source of financing for their business has been tricky.
- Xcel Energy has partnered with HBC Energy Capital to provide commercial customers and trade partners a one-stop shopping on-line portal for all their energy efficiency financing needs.
- The portal will provide financing proposals from a variety of Xcel Energy approved lenders to ensure that customers have access to the most appropriate financing from the lender that best suits their specific project.



- The Financing Process:
  - Customers or Trade Partners fill out the Finance Request Form found online at XcelEnergy.com.
  - HBC will develop a customized cash flow analysis to help customers understand what it takes to make their energy efficiency upgrades a reality.
  - HBC can answer any questions customers may have, revise their financing proposal if the project scope changes, and work with the various lenders to present multiple financing options so customers can pick the one that best meets their needs.



- Xcel Energy Approved Lenders:
  - We will review customer's project and provide at least two lender options.
- Proposals will come from:
  - Ascentium Capital
  - Colorado Enterprise Fund
  - Key Bank
  - Spark Fund
  - U.S. Bank
  - Colorado Commercial Property Assessed Clean Energy (CoPACE)



#### **SAMPLE Financing Proposal**

Step 3

#### **Prepared for: Xcel Energy Trade Partner**

#### Project summary

Trade Partner has engaged HBC Energy Capital to procure low cost financing for your project. The figures on this sheet explain the payments and savings calculated specifically for your project. Choose the term that best suits your needs and we will reach out with a 1-page application for financing approval.

Please note: proposal amounts are subject to credit review; interest rates and final payment amounts may vary.

Receive notification of financing approval and

begin equipment installation

| \$ Financing metrics     |                             |  |                 |                         |  |   |  |
|--------------------------|-----------------------------|--|-----------------|-------------------------|--|---|--|
| Project Cost<br>\$10,000 |                             | Rebate<br>\$1,200  |                 | Net Financed<br>\$8,800 |  | Estimated<br>Interest Rate<br>6.00%                 |  |
|                          |                             | Pr   | oject savi      | ngs metrics*            |  | •   |  |
| Term                     | Mon                         | thly savings   | Mon             | Monthly payment         |  | Net monthly cash flow                               |  |
| 3 years                  |                             | \$217  | \$268           |                         | -\$51  |   |  |
| Term                     | Monthly savings             |  | Monthly payment |                         | Net monthly cash flow  |   |  |
| 4 years                  | \$217                       |  | \$207           |                         | \$10   |   |  |
| Term                     | Monthly savings             |  | Monthly payment |                         | N  | et monthly cash flow                                |  |
| 5 years                  | \$217                       |  | \$170           |                         | \$47   |   |  |
|                          |                             | Next steps   |                 |                         | *1/10  | nthly neyment estimate                              |  |
| Step 1                   | Review                      | Review financing proposal  |                 |                         | is bas   | nthly payment estimate<br>ed on financing the total |  |
| ☐ Step 2                 | Energy                      | out the financing application from an Xcel ergy approved finance partner. Return plication to jeremy.epstein@harcourtbrown.com |                 | (may<br>reba            | ect cost minus rebates<br>y require assignment of<br>te to finance company).<br>onger terms may be |   |  |
|                          | Description of Granding and |  |                 |                         |  | onger terms may be                                  |  |



available to some borrowers.

- Business financing can cover up to 100 percent of your customer's project costs.
- Xcel Energy rebates can be used in conjunction with business financing.
- Customer approvals are quick and typically received within one business day.
- We expect the commercial financing portal to be fully operational by 9/1/16.
- For more information contact:
  - Robert.Macauley@XcelEnergy.com
  - 303-294-2675



# Business Lighting Efficiency & Small Business Lighting Programs

Paige Romero Program Manager, Customer Solutions



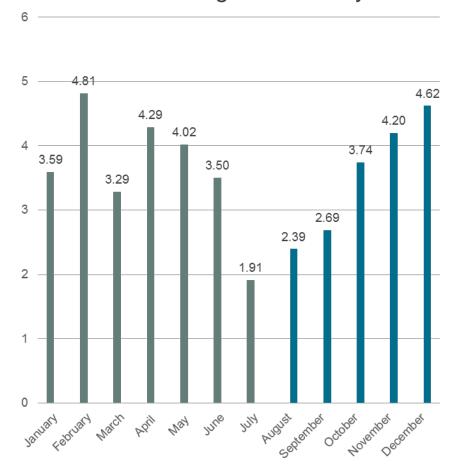
# Business LED Instant Rebate Program

Completed

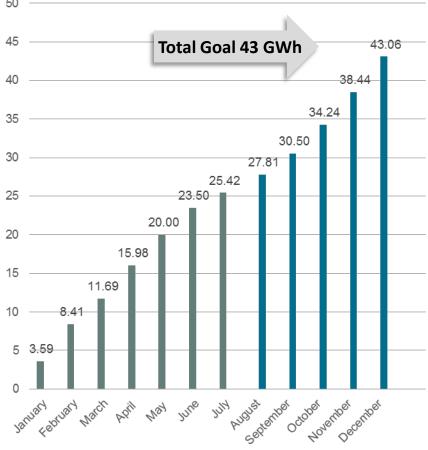
Includes both Lighting Efficiency & Small Business Lighting achievements

■ Forecasted

CO 2016 forecast gross GWh by month









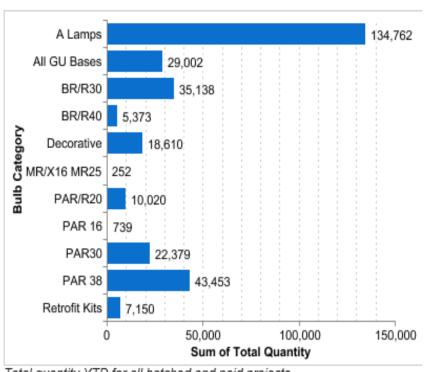
## LED Instant Rebate by Lamp Type

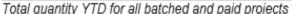
### **Units by Lamp Type**

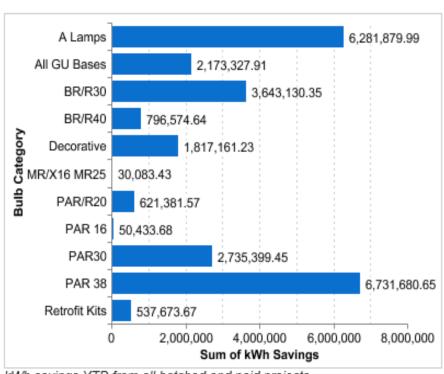
### **Achievement by Lamp Type**

YTD Midstream LED Sales- CO

YTD Midstream LED kWh Savings - CO







kWh savings YTD from all batched and paid projects



## **Business Lighting 60-Day Notice**

#### **Program Additions:**

- 1) LED Pin-Based Lamps
- 2) LED UL Type B Linear Replacement Lamps (tubes)
- 3) T12 to LED rebate offering
- 4) 3 additional LED Lamp categories added to direct install offering

#### T12 to LED Limited Time Rebate Promotion:

- 2015 Colorado Lighting Market Study findings revealed:
   Overall saturations of T12 lighting technologies largely unchanged since 2005, although 7 of 10 sampled program participants had no T12s.
- A limited time T12 to LED rebate offering has been developed and proposed to launch August 1, 2016, closing December 31, 2018.



### T12 to LED Limited Time Rebate Promotion

Rebates available for upgrading T12 systems to LEDs (August 1, 2016 through December 31, 2018)

| LED upgrade product   | Rebate        |
|---|---------------|
| LED troffer   | \$70/fixture  |
| LED troffer retrofit kit  | \$50/fixture  |
| LED tube Type A, 4 foot   | \$10/tube     |
| LED tube Type B, 4 foot   | \$10/tube     |
| LED tube Type C, 4 foot   | \$18/tube     |
| LEDs in refrigerator and freezer cases (5' or 6' doors) with LEDs | \$55/door     |
| LED linear ambient ≤ 35W (direct only)                            | \$80/fixture  |
| LED linear ambient 36-60W (direct only)                           | \$120/fixture |
| LED linear ambient ≥ 61W (direct only)                            | \$175/fixture |



# DSM Residential & Low-Income Program Q2-2016 Highlights

David Hueser, Team Lead, Customer Solutions



# 2017/2018 DSM Plan change and additions: Residential, Low Income, Electric & Natural Gas savings Products

Primary segment goal: continue to drive residential penetration through new customer participation

| Residential/Low<br>Income Product       | Product changes or Measures added   | Measures<br>eliminated                                 | Next Steps   |
|---|---|--|--|
| ENERGY STAR New Homes                   | Increased rebate levels to \$250 - \$2,550 for achieving 10%+ better than code (BTC) energy savings for 2012 IECC or higher homes | ENERGY STAR<br>Dishwasher                              | Evaluating training opportunities for joint Net-Zero-Energy (NZE) builders and architects. Exercise Gas DSM spending discretion to meet portfolio goals. |
| High Efficiency Air<br>Conditioning     | Ductless Mini-Split Heat Pumps, 15<br>SEER or higher, AHRI Certified, used for<br>cooling and heating, \$200 rebate               |  | On-going trade partner Product training and communications   |
| Home Energy Squad                       | Value LEDs included in core service*  |  | Partners in Energy opportunities   |
| Home Lighting                           | LED changes per ENERGY STAR specifications – 15,000 life, no more dimming and omni-directional light distribution                 | Discontinue<br>support of CFLs<br>beginning in<br>2018 | Continue primarily retail Point Of Sale (POS) strategy with WECC/Wisconsin Energy Conservation Corp.   |
| Insulation and Air Sealing              | Increased minimum savings requirement – 20% and 30%+ savings tiers  | "Tier 1" 10% savings                                   | Trade partner training, communications   |
| School Education Kits                   | LED-only lamp mix   | CFLs   | Volume orders by Third Party Implementer, kit building for 2017  |
| Low Income Single Family Weatherization | Select LED lamps*, Programmable thermostat, ECM furnace motors*, Water Heater blankets  |  | With Energy Outreach Colorado, evaluating the potential addition of other prescriptive rebates   |

<sup>\*</sup> Added via 60-Day Notice Product modification in 2016



### **ENERGY STAR® New Homes (E&G savings)**

#### We expect to keep the product open for full year in 2016

- Q2 2016 achievement remains strong:
  - 2,128 homes earned a rebate (51% of filed goal)
  - 1,982,950 net gen kWh (65% of filed goal)
  - 61,752 net Dth (49% of filed goal)
- 5 out of 6 months exceeded 400 homes per month
  - First time this has occurred
- First home to complete under 2015 IECC (Parker, CO)
- Ongoing training targeted to sales agents and home raters



Plan: Oakwood Homes, Aurora, CO



Photo: Lennar, Stapleton, Pioneer model



### **ENERGY STAR® New Homes (E&G savings)**

#### Proposed Changes for 2017/18

- Rebate determined using local energy code
  - IECC 2009 and older \$200 to \$1,400
  - IECC 2012 and newer \$250 to \$2,550

| Percent Better Than<br>Local Code | Builder Rebate –<br>IECC 2009 & older | Builder Rebate –<br>IECC 2012 & newer |
|-----------------------------------|---------------------------------------|---------------------------------------|
| 10.0-14.999%                      | \$200                                 | \$250                                 |
| 15.0-19.999%                      | \$350                                 | \$400                                 |
| 20.0-24.999%                      | \$500                                 | \$600                                 |
| 25.0-29.999%                      | \$650                                 | \$900                                 |
| 30.0-34.999%                      | \$800                                 | \$1,200                               |
| 35.0-39.999%                      | \$1,000                               | \$2,000                               |
| 40% and higher                    | \$1,400                               | \$2,550                               |

- High Efficiency Lighting rebate changes
  - IECC 2009 and older jurisdictions (\$20 rebate), must install at least 20 CFL or LED lamps
  - IECC 2012 and newer (\$10 rebate), must install 100% CFL or LED lamps
- ES Clothes Washer rebate reduced from \$50 to \$30
- ES Dishwasher rebate discontinued



### Residential Home Performance with ENERGY STAR®

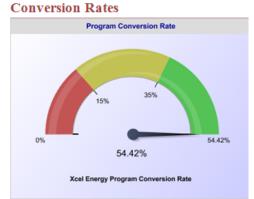
YTD Q2 2016 Achievement: Dth and kW savings ahead of 2015 pace, but kWh trails so far.

| Year | kW    | kWh     | Dth   |
|------|-------|---------|-------|
| 2015 | 49.17 | 153,549 | 4,122 |
| 2016 | 66.17 | 63,735  | 5,004 |

Q2 incentives and improvements include bonuses and co-marketing

- High Efficiency Furnace bonus: \$200 through Nov. 15th.
- \$250 Insulation Bonus on attic or wall insulation when 25%+ air-sealing reduction is achieved.
- Denver Energy Challenge HP awareness mailer.
- Boulder Energy Smart marketing mailer with bonus rebate offering.

<u>Lead conversion</u> <u>rate from Advising</u> peaking at 54%



Percentage of enrolled properties that have completed a qualifying upgrade or are in process completing a qualifying upgrade.

#### Main Proposed Changes for 2017/2018

- Align air-sealing measure with Insulation and Air Sealing Product
- Terminate CFL and Dishwasher measures.

| Measure  | Prescriptive Rebates     |                            |                          |
|--|--------------------------|----------------------------|--------------------------|
| Top 3 Improvements*                            | Gas<br>Heat/AC<br>Cooled | Gas<br>Heat, no<br>Cooling | Elec.<br>Heat/Co<br>oled |
| Attic Insulation                               | \$600                    | \$400                      | \$700                    |
| Air Sealing, Weather-<br>Stripping Top Tier    | \$500                    | \$325                      | \$550                    |
| Air Sealing, Weather-<br>Stripping Bottom Tier | \$400                    | \$250                      | \$450                    |

<sup>\*</sup> Recommended in customer's audit

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### **Evaporative Cooling (Electric savings)**

#### Positive 2016 effect from 2015 rebate increases, especially Standard/Tier 1 systems

- YTD Q2 electric DSM savings 21% of 2016 goal on 31% of spend. Mid-year 2016 participation increased by over 40% vs. prior year driven by Standard/Tier 1 systems, generally window- or wall-mounted units
- Q2 trade partner training, including "big 3" manufacturers representatives, focused on customer benefits, sizing, ducting, technical basics
- Outreach and marketing efforts focused on targeted mailings, email, trade relations – especially Western Slope
- Product is not expected to achieve its 2016 filed goals, but year-over-year participation is expected to significantly improve

#### Most popular-selling units from "big 3" manufacturers



Champion/Mastercool 4001DD



PMI Brisa BD4000



**Breezair EXV155** 

#### Home Depot



Bonaire/Durango 4500E



Hart/Cooley



### Low-Income Single Family Weatherization (E&G)

Primarily aimed at natural gas savings for low income, single-family homes, the Product represents \$3.6M, or 57% of the \$6.4M total electric & gas budget dedicated to low income

- In Q2, eight weatherization agencies participating in the Product
- Colorado's Affordable Residential Energy program/CARE (Summit County/High Country Conservation) expanded to Metro Denver, where EOC partners with Energy Resource Center
- 2016 contingency plans to drive additional electric savings focus on refrigerator replacement, lighting
- 2017/18 Product changes/additions: LED lamps, ECM furnace motors, Programmable Thermostat, Water Heater blankets
- For 2017/18, with Energy Outreach Colorado, evaluating the potential addition of other prescriptive rebates

#### Program Implementers





#### Collaborations







- Networking Break -





### **DSM Pilot Updates Q2-2016 Highlights**

Colin Lamb Team Lead, Product Development



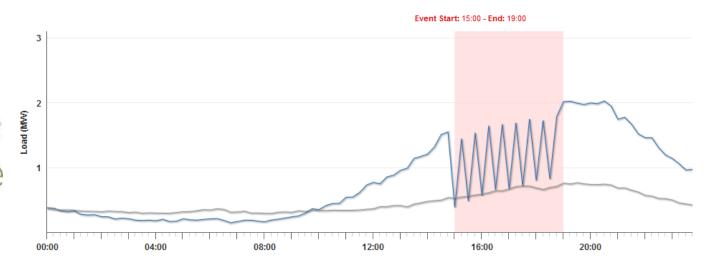
|   | PILOT                                 | STATUS      |
|---|---------------------------------------|-------------|
| 1 | Smart Thermostat Pilot                | In Progress |
| 2 | Small Business Smart Thermostat Pilot | In Progress |
| 3 | Energy Feedback – Business Pilot      | In Progress |
| 4 | Building Optimization DR Pilot        | In Progress |
| 5 | Multifamily Buildings Pilot           | In Progress |
| 6 | ENERGY STAR Retail Products Platform  | In Progress |



# DSM Pilot Highlights Residential Smart Thermostat

- Fully subscribed (5,000 participant target)
- Nearly 60% to date used online storefront with instant rebate
- Began DR events June 21









## DSM Pilot Highlights Small Business Smart Thermostat

- Nearly fully subscribed
- Technical challenges delayed installation
- Preparing to implement DR events in Q3



#### Honeywell







### DSM Pilot Highlights Energy Feedback – Business

- Latest measurement continued to show negligible savings
- Clear that customers are engaged with reports
- Pilot runs through 2016
- Actively exploring next steps





# DSM Pilot Highlights Building Optimization DR

- 1.8 million square feet enrolled
- 15 buildings totaling > 7.6 MW peak demand
- Final building in process; will complete enrollment
  - total 16 buildings, 2.5 million square feet
  - > 9MW peak demand
- Planning first demand response events for Q3 (successfully executed on July 21)
- Plan to pilot through 2017









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### DSM Pilot Highlights Multifamily Buildings

- Current Results:
  - 29 energy assessments completed YTD, 39 total
  - Direct installation of energy efficient equipment at 969 apartments YTD
  - New goal of 1,800 units to be met in Q3
  - Phase 3 projects identified and being evaluated



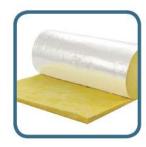
High-Efficiency Lighting (CFLs and LEDs)



Energy-Efficient Showerheads (1.5 GPM)



Bathroom/Kitchen Faucet Aerators (1.5 GPM)



**Water Heater Blanket** 



## DSM Pilot Highlights ESRPP PILOT

#### Energy Star Retail Products Platform (ESRPP) Pilot

- Reporting and data challenges persist; expect to be resolved in Q3
- Retailer support plans complete
- Engaging with national working groups
  - New products working group
  - EM&V working group









## DSM Product Development Q2-2016 Highlights

Thor Bjork
Team Lead, DSM Product Development



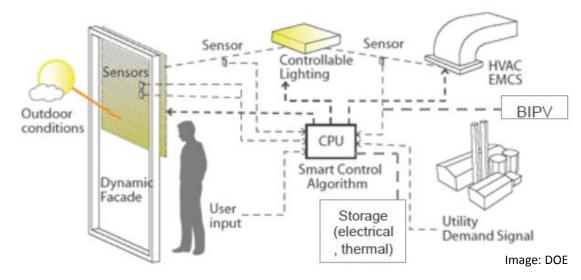
### **DSM Product Development**

## "Beyond Widgets" Research project with DOE's Lawrence Berkeley National Laboratory

- Networked lighting controls
- Daylight redirecting window film
- Deep daylight dimming
- HVAC controls
- Schedule:
  - 3/15 –12/15: Systems research
  - 1/16 7/16: Experiment design
  - 8/16 6/17: Testing at FLEXLAB
  - 7/17 9/17: Results and program implementation



**Building Technologies Program** 





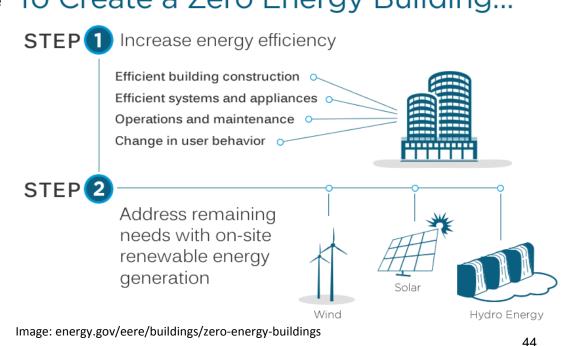




### **DSM Product Development**

#### Net Zero Energy New Construction

- Growing number of customers striving to minimize net energy consumption, with strategies across multiple DER technologies
- Requires additional assistance To Create a Zero Energy Building...
   beyond Energy Design
   Assistance
   STEP 1 Increase energy efficiency
  - Earlier consulting and energy modeling
  - Enhanced monitoring and verification
- Focus is to enable a streamlined, cost-effective approach to serving these projects





### **DSM Product development**

#### Efficient Process/Commercial Dehumidification for indoor farming

- High-efficiency heat exchanger to condense excess moisture
- A study is required to overcome customer hesitancy and to prove savings
- Expected completion late 2016







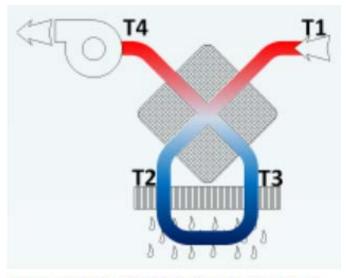


Figure 1 - Diagram of MSP technologies cooling process (source: www.msptechnology.com)



#### Dsm product development

#### Advance Roof Top Unit (RTU) Controllers

- VFD is operated using advanced economizer and demand controlled ventilation controls
- Challenges:
  - Bringing some RTUs up to code prior to retrofit may increase energy use
  - Developing prescriptive savings methodology
  - Doesn't fit most contractor business models



Photo: Platte River Power Authority

| Advanced RTU Control System         |
|-------------------------------------|
| Essential Features                  |
| Variable or multi-speed fan control |
| Integrated economizer               |
| Demand controlled ventilation       |
| Desirable features                  |
| Variable capacity compressors       |
| Fault detection and diagnostics     |
| Remote monitoring                   |
|                                     |



#### Q2 idea submissions

- Gas Safety Monitoring & Energy Recycle; Received June 1, 2016
  - Indoor Air & Energy Recycle L.L.C.
- Description:
  - Commercial kitchen hood demand controlled ventilation (DCV)
- Evaluation Result:
  - Discussed with idea submitter
  - Technology is currently under development 70% complete
  - Will revisit once unit is available and tested





#### DSM Quick To Market (formerly Product Development Express) Q2-2016 Highlights

Michael Papula Energy Efficiency Engineer



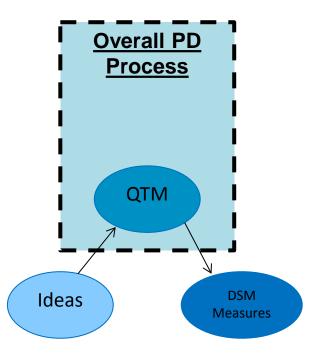
### Quick to Market (QTM) Overview

- The DSM Team for Product Development Express (PDx) Has Taken A New Name - Quick to Market (QTM)
- Purpose of the Team Remains Unchanged:
  - Evaluate Current Custom Project Applications for Potential Prescriptive Products
  - Provide an Alternative Path for Smaller, Simpler, Straightforward Products to Become New Prescriptive Products
  - Manage the Development of Technical Assumptions And Launch New Prescriptive Products Based on Custom Projects
- Goal of the Team
  - Expand Upon the Cost-Effective Prescriptive Products Available to Customers



### Quick to Market (QTM) Overview

- Initiated in the 2nd Quarter of 2014 as a DSM Team Working With Product Development
- Managed by Three Person Cross-Functional Team
- Process Follows Final Stages of Product Development Process





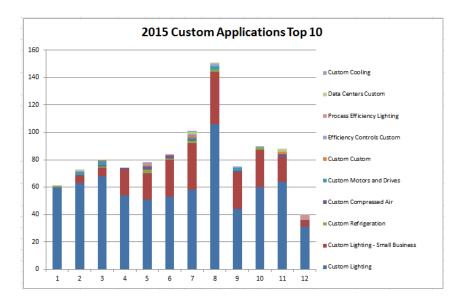
### QTM – the past year

- QTM Measures Brought to Market in 2016 Through 60-Day Notice or Regulatory Filings:
  - Linear Fluorescent LED Replacements Type B Lamps (CO/MN)
  - LED PL/G Pin-based Lamps to Replace CFLs (CO)
  - LED Interior and Highbay Wattage Ranges Expanded (CO/MN)
  - Direct Install LED Lamps for Small Business Lighting (CO)
  - Value LED Lamps for Residential Lighting (CO/MN/NM)
  - LED Fixtures with T12 Baselines (CO)

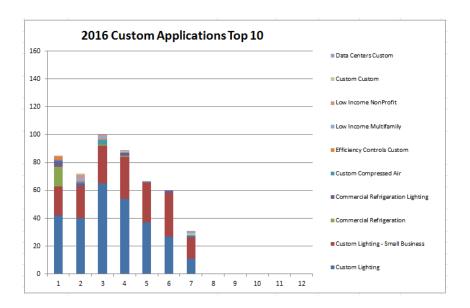


- Measures for T12 fixture Replacements and Retrofits with LED Technology Includes the Following:
  - LED in Refrigerator and Freezer Cases
  - LED Troffers
  - LED 4 foot Tubes in Type A, B & C
  - LED Linear Ambient fixtures

## 2015 Top 10 CO Custom Programs



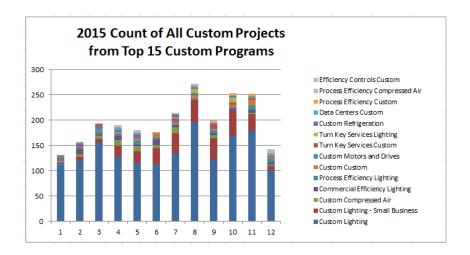
## 2016 Top 10 CO Custom Programs

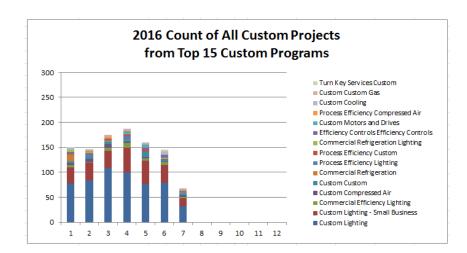




#### **Top 15 custom programs 2015**

#### **Top 15 custom programs 2016**





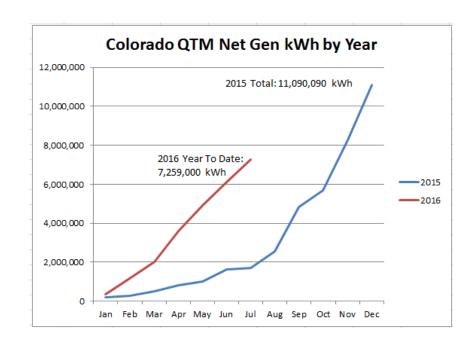


- The Number of Custom Projects Are Showing A Trend Toward Reducing Both in Colorado and Across All Xcel Jurisdictions
- In Colorado Approximately 1/3 of the 600 Custom Applications received in Q2 Will Be Covered by New Prescriptive Measures by August 1, 2016



#### **Performance of New Products**

- The Cumulative Net Generator kWh Thru New Prescriptive Products
  - Total to Date: 18,349,090 kWh
- Slow Ramp Up During 2015
- Customer Use of Measures Appears Steady During 2016
- Already Seeing Uptake of New T12 Measures in First Week of August





- New Prescriptive Measures for the 2017 / 2018 DSM Filing
  - LED Lamps Screw-in (with HID Base)
  - LED Interior Fixtures (with CFL Base)
  - VFD Measure for Water Well Pumps
  - Unit Heater Measures for Commercial and Industrial Spaces
  - High Efficiency Non-condensing Unit Heaters
  - High Efficiency Condensing Unit Heaters
  - Infrared Radiant Heaters



# Custom Project Archive – Next Steps

- Continue to Monitor the Performance of the New Measures
- QTM Team Continues Review Custom Projects For Potential New Measures
- Participate In Product Development's Opportunity Identification Efforts During Q3

**Questions?** 

- Thank you -

