



Q3-2015 COLORADO  
DSM ROUNDTABLE

November 4, 2015

- 1:00 – 1:10 p.m. Welcome and DSM Regulatory Updates
- 1:10 – 1:50 p.m. DSM Programs: Q3-2015
  - » Business Program
  - » Residential and Low-Income Programs
- 1:50 – 2:15 p.m. DSM Pilot Updates: Q3-2015
- 2:15 – 2:30 p.m. -- *Networking Break* --
- 2:30 – 2:45 p.m. DSM Product Development: Q3-2015
- 2:45 – 3:00 p.m. DSM PD Express: Q3-2015



# DSM REGULATORY UPDATES Q3-2015

SARAH RUEN BLANCHARD  
DSM Regulatory

- Computer Efficiency
  - *Posted:* Sept. 25, 2015
  - *Implemented:* Oct. 25, 2015
- Energy Savings Kits and Single-Family Weatherization
  - *Posted:* Oct. 1, 2015
  - Response to Comments will post by Nov. 30, 2015
- New Construction
  - *Posted:* Oct. 12, 2015
  - Comments Due: Nov. 10, 2015
- Lighting Efficiency and Lighting – Small Business
  - *Posted:* Oct. 14, 2015
  - Comments Due: Nov. 12, 2015
- Commercial Refrigeration Efficiency
  - *Posted:* Oct. 27, 2015
  - Comments Due: Nov. 25, 2015

## 2015/16 DSM Plan Settlement Compliance Progress

- Aug. 31: Briefing on Efforts to Reduce Non-Participants (5k/ii)
- Oct. 8: Energy Codes Training Call (5n)
- Today: LED Cost-effectiveness for Low-Income products (5h)  
Ala carte LED for Home Energy Squad (5f)
- Nov. 18: DR Meeting #2 (5o)

## Next Roundtable – Save the Date!

- Q4-2015 DSM Roundtable Meeting on February 17, 2016





# DSM ACHIEVEMENTS Q3-2015

BILL CONRAD  
Manager, Energy Efficiency Marketing

## Electric Portfolio

- 259 Net Gen GWh (64% of Target)
- 49 MW (52% of Target)
- \$52M Spend (55% of filed budget)

## Business Programs (kWh Target)

- Compressed Air Eff. – 97% of Target
- Recommissioning – 97% of Target
- Motors and Drives – 96% of Target
- Custom Eff. – 90% of Target
- Data Center Efficiency – 87% of Target

## Residential Programs (kWh Target)

- Insulation & Air Sealing – 128% of Target
- Residential Heating – 109% of Target
- High Efficiency A/C – 91% of Target
- ENERGY STAR New Homes – 81% of Target

## Gas Portfolio

- 340,497 Net Dth (58% of Target)
- \$6.7M Spend (52% of filed budget)

## Business Programs (Dth Target)

- EMS – 276% of Target
- Recommissioning – 73% of Target
- Heating Efficiency – 49% of Target

## Residential Programs (Dth Target)

- Insulation & Air Sealing – 84% of Target
- Residential Heating – 62% of Target
- ENERGY STAR New Homes – 58% of Target
- Single-Family Weatherization – 78% of Target

## Business

- Industrial customer workshop (September)
- Plate and frame HEX campaign for Data Centers and C/I customers
- Data Center best practices campaign and customer training seminar
- Data Center *Top 5 Ways to Save* campaign
- Business Energy Analysis mid-year campaign
- Energy Design Assistance (New Const.) media promotions ,NPR radio, USGBC, DOE, construction publications, American Institute of Architects
- Lighting training workshops (three in 2015)
- Pump System Optimization Training

## Residential

- ENERGY STAR New Homes free training classes for sales agents and home raters
- Evaporative Cooling campaign: radio, newspaper, and social media; retailer and trade incentives
- Home Energy Squad launch
- *Warm Up to Savings* Insulation campaign
- School Education Kit campaign
- Low Income Kit e-mail campaign to qualified customers
- Saver's Switch Red Cross campaign





# DSM BUSINESS PROGRAM Q3-2015 HIGHLIGHTS

KIM SPICKARD  
Team Lead, DSM Marketing

**Launched to market September 2015**

**Participating Distributors:** 13

**Submitted Applications:** Western Mechanical Solutions  
Rocky Mountain Trane  
Lennox Industries, Inc.  
Lohmiller & Co. DBA Carrier West  
Long Building Technologies  
Ace Mechanical Equipment, Inc.

**Results:** (September) 324 units, 1400 Tons  
(October) 123 units, 1534 Tons

*“It is sure easy to sell high efficiency when it is in stock”*

# LIGHTING – SMALL BUSINESS DIRECT INSTALL



**Launched to market September 2015**

- Approved Direct Install equipment:
  - Select Screw-in LED Lamps:
    - A19
    - PAR 20 + R20
    - PAR38
  - Aerators in public restrooms and kitchen sinks
    - Electric & Gas Water Heaters



# DIRECT INSTALL PARTICIPATION QUALIFICATIONS



## Lighting – Small Business, Direct Install Participation Qualifications:

- Xcel Energy active electric customer
- 100 peak demand kW customer and below

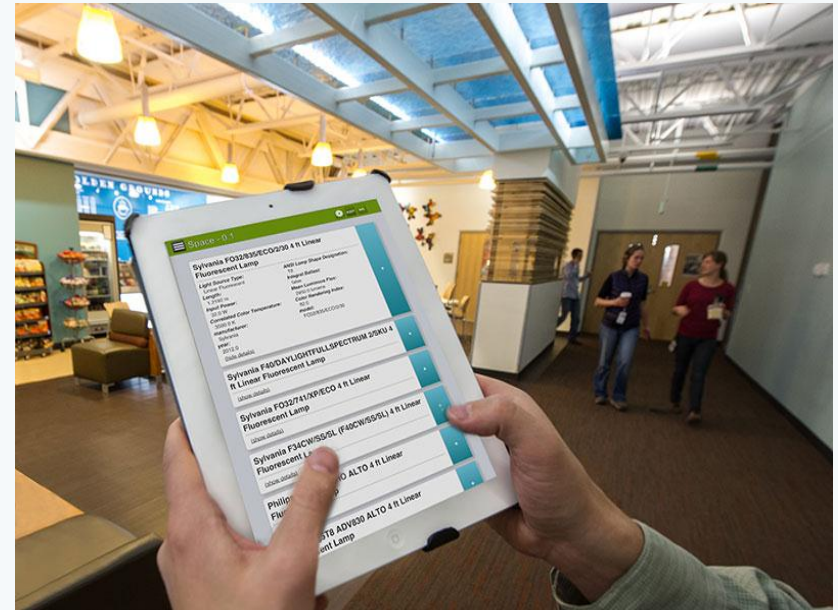
(Continue to support managed accounts  
through Lighting Efficiency)



# DIRECT INSTALL PROCESS

## Lighting – Small Business, Direct Install Process:

- During lighting assessment
- Installation completed by CLEAResult lighting auditor
- Helps to build relationship and rapport with customer
- Builds pipeline for auditors
- Lead generator
  - Allows for different outreach techniques
  - Offer tangible product



# HEATING EFFICIENCY



Q3 Results: 49% of Target

## Bonus Incentives:

- Customer Bonus 25%
- Trade Incentive 10%

## Events:

- Trade Partner Technical Training
- Customer Best Practices Lunch & Learn

## Potential New Electric Measure:

- EC Motor for Furnace Fan, anticipated via 60-Day launch

**USE US**  
to prepare for winter savings

**Add "Saving Money" to Your Winterizing Checklist**

As you're getting building systems ready for the cold season, we bundled up a checklist of equipment improvements to help you save energy—and matched them with these money-saving rebates.

Visit [xcelenergy.com/HeatingBonus](http://xcelenergy.com/HeatingBonus) for business heating efficiency bonus details and rebate applications.

**Maintain Your Boiler**

- Upgrade to a high-efficiency boiler
- Tune up your boiler
- Insulate your pipes
- Repair or replace steam traps

**Add these efficiency values to your checklist:**

- ✓ Reduce energy use and improve your bottom line
- ✓ Integrate equipment monitoring and control
- ✓ Centralize heating system operations
- ✓ Enhance occupant comfort and increase customer satisfaction
- ✓ Apply for Xcel Energy cash

**Get your heating season savings off to a good start with a 25% bonus rebate!**

For the first time in many years, we're excited to announce that Colorado customers can earn 25% bonus rebates on qualifying heating efficiency upgrades. The deadline for rebate application submission is December 15, 2015.

**Qualification details:**

- Projects must be invoiced, installed, and rebate applications submitted before December 15, 2015 to earn the 25% bonus for heating improvements.
- Qualifying Heating Efficiency projects include:
  - Hot water boiler upgrade
  - Furnace upgrade

**What kind of savings can you expect?**

On average\*, businesses received:

- \$3,200** for high-efficiency boiler upgrades
- \$270** for boiler tune-ups

- Lighting Efficiency bonus extended to November 30, 2015
- Cooling's DEPACC bonus extended to November 30, 2015
- Recommissioning's Building Tune-Up promotion extended to December 31, 2015
- Heating Efficiency bonus runs Sept 1 – Dec 15, 2015





# DSM RESIDENTIAL & LOW-INCOME PROGRAM Q3-2015 HIGHLIGHTS

DAVID HUESER  
Team Lead, DSM Marketing

# SETTLEMENT ITEM: LOW-INCOME SINGLE FAMILY WEATHERIZATION, ENERGY SAVINGS KIT



Analysis results: LED lamps determined cost-effective with concurrent administrative cost reductions in both Products

Low Income Energy Savings Kit		
	Impacts as filed in Plan	Revised per 60-Day Notice
Electric Energy Savings (kWh)	1,008,759	1,019,279
Electric Demand Reduction (kW)	112	113
Budget (\$)	\$289,831	\$289,831
MTRC Test Ratio	2.08	2.07

- 10-watt LED bulb to replace one out of four 13-watt CFLs
- Portion of Third-Party Administration costs re-allocated to cover increased costs of LED vs. CFL lamps.
- 1.39 MTRC for LED measure
- 60-Day Notice does not changed the filed budget

Single-Family Weatherization		
	Impact as filed in Plan	Revised per 60-Day Notice
Electric Energy Savings (kWh)	2,379,324	2,401,170
Electric Demand Reduction (kW)	223	226
Budget (\$)	\$1,358,190	\$1,429,250
MTRC Test Ratio	0.94	1.02

- A-Style and BR-Style LED lamps to be integrated into the Colorado Energy Office's State Weatherization Program
- CFL units and savings decreased, LEDs increased
- 2.29 MTRC for LED measure
- EOC will collect CFL/LED lamp wattage and quantity of CFL/LED lamps installed by wattage to attribute savings

# LOW-INCOME ENERGY SAVINGS KIT



- First direct mail offer had a 20% response rate from qualified customers
- Second direct mailing plus new e-mail offer – with pre-populated URL response device – implementing in Q4
- 60-Day Notice for LED lamp inclusion posted Oct. 1. Comments received will be responded to by Nov. 30.
- Energy Savings Kit components:
  - Three (3) Compact Fluorescent Bulbs (13 Watt – 60 Watt Equivalent)
  - Four (4) Compact Fluorescent Bulbs (20 Watt – 75 Watt Equivalent)
  - One (1) Light-Emitting Diode Bulb (10 Watt – 40 Watt Equivalent), ***proposed to replace fourth 13 Watt CFL***
  - 1.5 gpm High Efficiency Showerhead
  - 1.5 gpm Kitchen Faucet Aerator
  - 1.0 gpm Bathroom Faucet Aerator
- Installation reminder postcard aids installation rates of kit components
- Product expected to meet or exceed 2015 electric and natural gas savings targets, within budget



Energy Savings Kit components



Energy Savings Kit  
Installation reminder direct mail

Residential customers benefit from lower-energy-consumption with new homes that exceed local energy code requirements by at least 10%. Builders whose homes achieve ENERGY STAR certification earn an additional incentive.

- Program will remain open for the full year
- Non-participating builder relations improving, with energy raters leading the discussion
- Opportunities identified:
  - Additional energy savings from above-grade wall and foundation wall insulation
  - Top plate sealing to reduce air infiltration
- Completed 13 energy-efficiency marketing and sales training classes in 2015
  - No cost to participating builders, energy raters and real estate professionals
  - Attendance has ranged from 8 to over 50
  - Additional classes being targeted this fall in Grand Junction and Summit County
- Builder buy-in takes time, multiple levels of approval



Photo: David Weekley Homes, Stapleton

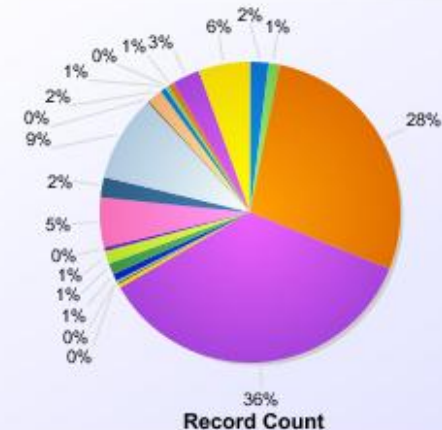


Photo: Brookfield Homes, Midtown Denver

Q3 Electric Achievements: 232,815 net kWh  
Q3 Natural Gas Achievements: 8,254 net Dth

- Trade Partner Training
  - Confirm 2015/16 changes
  - Air Conditioning Customer Rebates up to \$1,250
  - Evaporative Cooling measure rebate increased effective June 1
  - Trade incentive \$100
  - Increased Insulation and Air Sealing measure incentives
- Primary Gas measures:
  - Ceiling/Attic Insulation
  - Air Sealing
  - Wall Insulation
- Primary Electric measures:
  - Lighting/CFLs
  - Thermostats

## Completed Energy Upgrades by Measure



### Upgrade Measure: Upgrade Measure Look-up Table Name

- Air Conditioner (New)
- Air Conditioner (Replacement)
- Air-Sealing (professional)
- Ceiling/Attic Insulation
- Clotheswasher
- Decommission Refrigerator and/or Freezer
- Dishwasher
- ECM Fan Motor
- Evaporative Cooler
- Floor/Crawl Insulation
- Gas Boiler
- Gas Furnace
- Lighting - CFL
- Lighting - LEDs
- Lighting - LEDs (60-100 Watt replacements)
- Programmable Thermostats
- Refrigerator
- Solar PV
- Tankless Water Heater
- Tank Water Heater
- Wall Insulation

Energy-use comparisons and information in Home Energy Reports includes recommendations and tips designed to motivate and educate

- Transitioned from Pilot to Program in 2015
- Currently 431,938 participants
- Leveraging home energy reports – promoting other DSM products
  - Insulation & Air Sealing
  - High Efficiency A/C
  - Evaporative Cooling

## Are your heating costs going through the roof?

If your home doesn't have adequate insulation, you may be losing up to 25% of your heating or cooling energy. Use us to save money on future bills and earn rebates on qualifying installs.

For more information, visit  
[xcelenergy.com/homerebates](http://xcelenergy.com/homerebates)  
or call 800-895-4999.





# SAVER'S SWITCH®



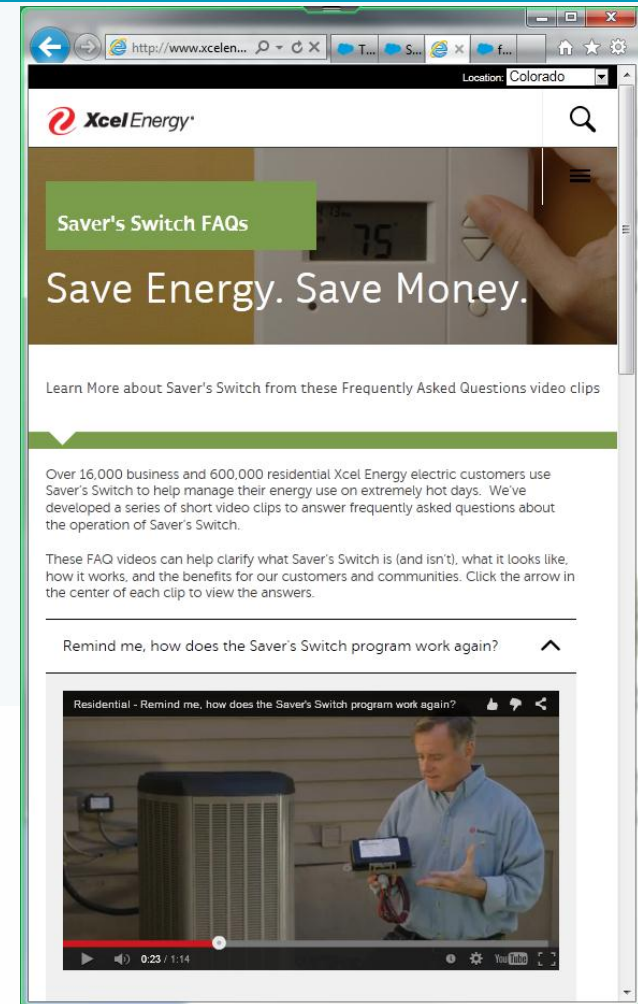
Estimated 9,000 new participants in 2015; 175,000 total

- Customer benefit: \$40 electric bill credit every October
  - Air conditioning cycles on/off in 30 minute intervals, small impact on customer comfort
  - Control event frequency

**Control Events by Year**

2015	2014	2013
2	1	11

- Estimated 50% eligible customer penetration
- Higher future recruiting costs to attract non-participants
- Higher cancellation rates in 2015
- Promotional efforts to boost installations in 2016:
  - October direct mail, LED 4-pack giveaway
  - \$25 Red Cross donation for new sign-ups
  - Xcel Energy internal call-center efforts



Source: Xcel Energy [Web site](#)

# HOME ENERGY SQUAD NEW PRODUCT IN 2015



Roll-out commenced on October 1, in partnership with CLEARResult

- Initially promoted via targeted e-mail, Web content & tools, social media, direct mail
- Home Energy Audit interest spiked
- Product components:
  - Walk through audit to identify potential savings
  - Direct installation of nominal value measures
  - Ala carte measures available for purchase
- Participation targets:
  - 2015: 1,200 (prorated for abbreviated Plan-year)
  - 2016: 1,600
- Commonly installed home measures:
  - Electric: CFLs
  - Gas: Showerheads, faucet aerators
  - Combo: Thermostat, weather-stripping
- Ala carte LEDs cost-competitive w/Home Lighting



Photos: Neighborhood Energy Connection, St. Paul, MN





# DSM PILOT UPDATES Q3-2015 HIGHLIGHTS

COLIN LAMB  
Team Lead, Product Development

# DSM PILOT HIGHLIGHTS



	PILOT	STATUS	
1	Online Energy Feedback	In Progress	
2	Business Energy Feedback	In Progress	
3	Residential Smart Thermostat Pilot	In Progress	
4	Small Business Smart Thermostat	Vendor selection	
5	Building Optimization	In Progress	
6	Multifamily Buildings	In Progress	

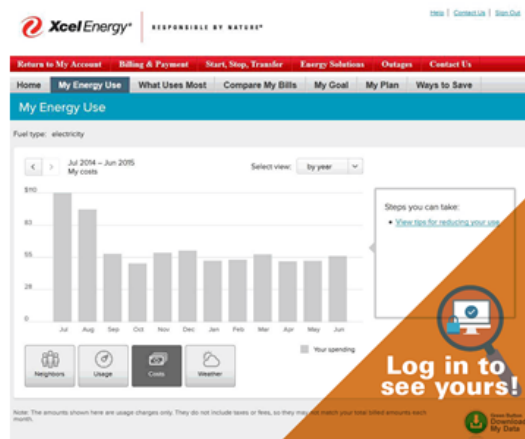
# DSM PILOT UPDATES ONLINE ENERGY FEEDBACK MEASURE



[View with images](#)

[My Account](#)

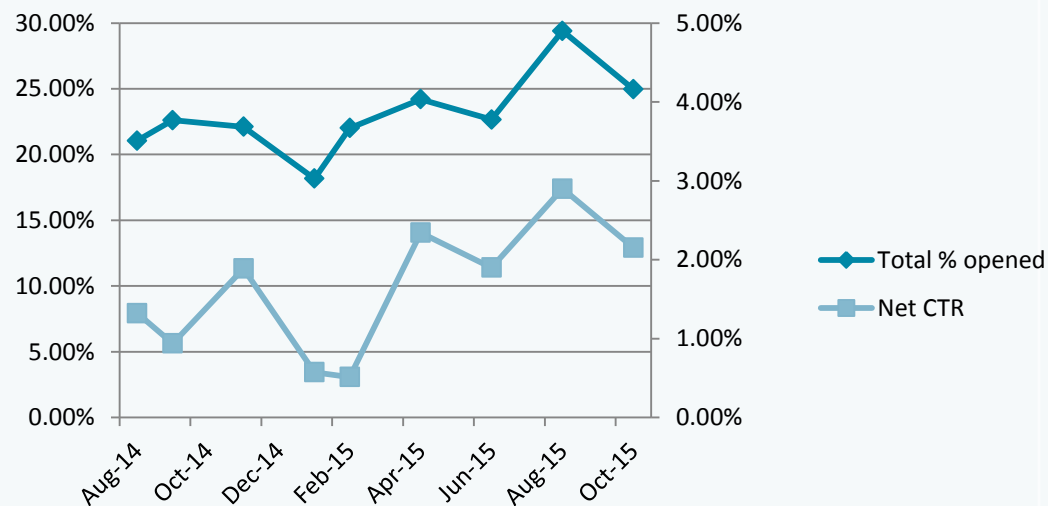
My Energy reveals your home energy use, so you can make a difference.



Information tools like month-to-month energy use show how you much energy you actually use. And our helpful advice and quick tips provide steps you can take to lower that use. So start making a difference.

[Try My Energy Now](#)

## Open and click-thru rates improving



# DSM PILOT HIGHLIGHTS

## BUSINESS ENERGY FEEDBACK



### UPDATE

- 1 Dec 2014 - July 2015: Results inconsistent with 2014 savings; no savings to claim
- 2 Will post 60-Day Notice in near future to maintain Business Energy Feedback as a pilot
- 3 Other aspects of filed plan will remain the same



# DSM PILOT HIGHLIGHTS

## RESIDENTIAL SMART THERMOSTAT



### UPDATE

- 1 Launched and doing well, more than 1,200 participants
- 2 Marketing push began early September, manufacturers supporting, City & County of Denver + Boulder County Energy Smart as well
- 3 About 90% of participants got instant rebate through [www.xcelenergystore.com](http://www.xcelenergystore.com)

The brighter way to save energy.

Meet the 3rd gen Nest Learning Thermostat

[Watch the video](#)

**BUY NOW**

Get a \$50 rebate from Xcel Energy >

The advertisement features a Nest Learning Thermostat with a red display showing 'HEATING' and '68'. A red arrow points to the rebate offer at the bottom left.



# DSM PILOT HIGHLIGHTS

## SMALL BUSINESS SMART THERMOSTAT



### UPDATE

- 1 RFP proposals received from 3 manufacturers for devices, training, etc.
- 2 Initiating contracting with selected vendor
- 3 Customers expected to get offering early 2016



# DSM PILOT HIGHLIGHTS

## BUILDING OPTIMIZATION DR

### UPDATE

- 1 823,000 square feet enrolled (4 buildings)
- 2 Software installation complete at 2 buildings
- 3 Still recruiting the right participants





# DSM PILOT HIGHLIGHTS MULTIFAMILY BUILDINGS



## UPDATE

- 1 Launched to customers September 15th
- 2 First assessment and direct install completed
- 3 Larger energy efficiency opportunities being identified; seeing customer interest
- 4 Year-end goal: 300 apartment units reached with direct install





# DSM PILOT HIGHLIGHTS

## ENERGY STAR RETAIL PRODUCT PORTFOLIO (ESRPP)



- ESRPP engages retailers at national level



sears

- Mid-stream incentives for consumer products

- Freezers
- Dryers
- Room air cleaners
- Room A/C
- Sound bars

- 60-Day Notice Anticipated in November 2015

### Then (2004)



- 30% energy savings economical.
- Mail-in rebates up to \$200 available.

### Now (2015)



- Soon, cost-effective rebates may be closer to ~\$25



*- Networking Break -*





# DSM PRODUCT DEVELOPMENT Q3-2015 HIGHLIGHTS

THOR BJORK  
Team Lead, Product Development

## Stage 3 Development – Traditional PD

Concept	Product	GWh (estimate)	Dth (estimate)
High Efficiency Computer Room Air Conditioner Units	Data Center Efficiency	5.4	-
Comprehensive Data Center Design Assistance	Data Center Efficiency	4.9	-
Computer Tablets	Computer Efficiency	2.2	-
Upstream Electronics	TBD	4.0	-
Retail Products Platform	Pilot	1.0	100
Mini-Split AC	High Efficiency Air Conditioning and Cooling Efficiency	2.2	-
Advanced RTU Controllers	Cooling Efficiency	2.8	-
Efficient Process/Commercial Dehumidification	Cooling Efficiency	3.0	-

**Share your Product Ideas:**

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

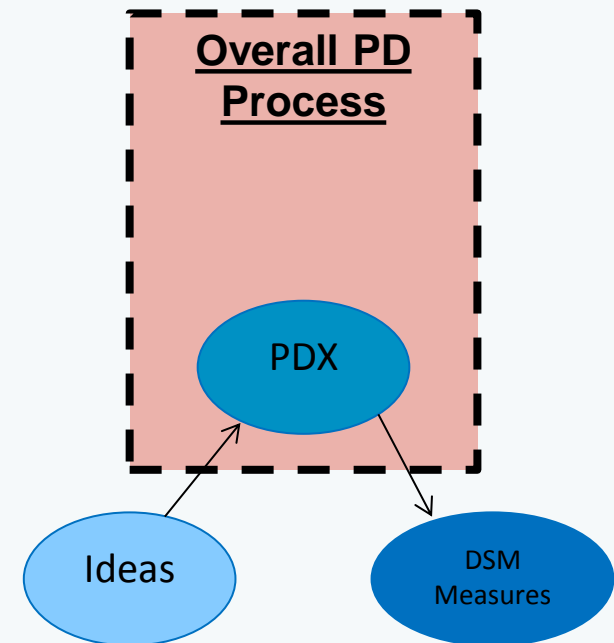


# IMPACTS OF PDX & THE CUSTOM PROJECT ARCHIVE

ADAM WHITE, P.E.  
Senior Energy Efficiency Engineer

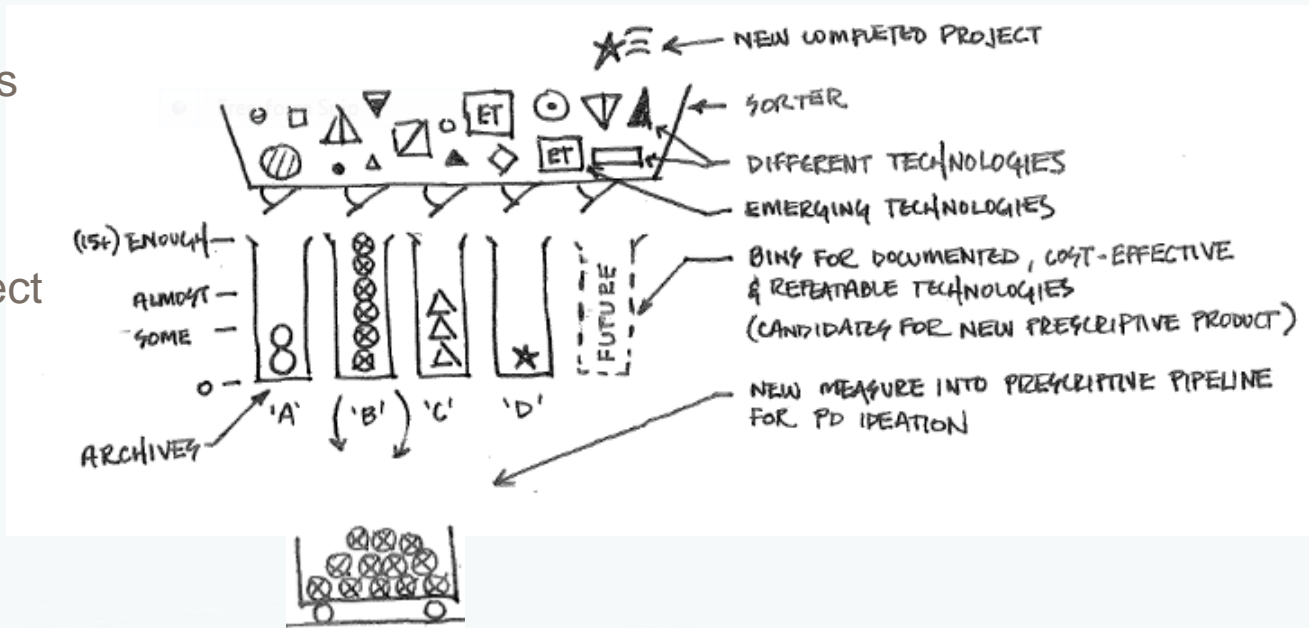
# WHAT IS PDX?

- Alternative path for smaller, simpler, straightforward projects to become new prescriptive products.
- Initiated in the 2<sup>nd</sup> Quarter of 2014
- Managed by 3-person cross-functional team
- Goals:
  - Streamline the approval process for new prescriptive measures
  - Make easier for customers & vendors to participate in our programs
  - Make as many cost-effective prescriptive measures as possible



# WHAT IS THE CUSTOM PROJECT ARCHIVE?

- A formalized process that went live 1/1/15 that documents all new custom project characteristics, ultimately benefiting our customers.
- Creates real-time pipeline for PDX from 2000+ custom projects per year.
- Counts reveal new technology-adoption trends of our customers
- Once we get enough repeatable and cost-effective projects, project characteristics will emerge

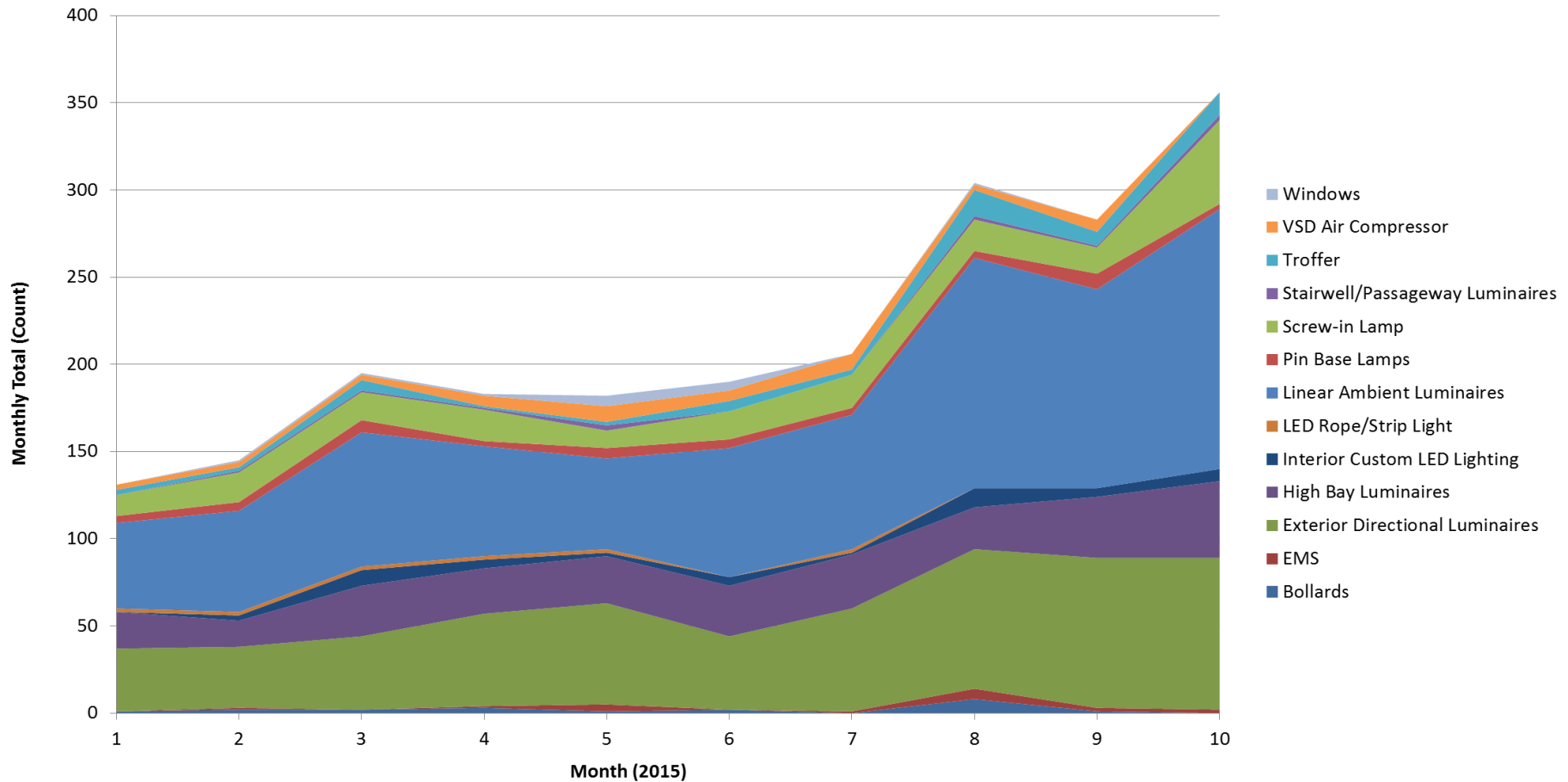




# CUSTOM PROJECT ARCHIVE: WHAT HAVE WE LEARNED?



2015 Custom Project Pre-Approval Counts (at least 10) - By Category & Month

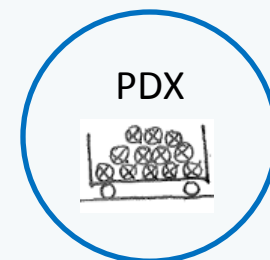


# CUSTOM PROJECT ARCHIVE: WHAT HAVE WE LEARNED? (CONT.)



Custom Project Category	Count of Custom Projects	Average of Customer PCKW	Average of Customer kWh	Prescriptive Status?
Linear Ambient Luminaires	845	13.097	54,250	<b>Live - Dec. 2015</b>
Exterior Directional Luminaires	578	5.932	55,212	In the Market - Sept. 2015
High Bay Luminaires	281	19.609	94,327	<b>Live - Dec. 2015</b>
Screw-in Lamp	189	13.239	52,671	In the Market - Jan. 2011
Troffer	59	15.834	56,965	In the Market - Mar. 2014
Pin Base Lamps	50	9.757	48,281	In the Market - Jan. 2011
VSD Air Compressor	49	17.894	142,571	To Remain Custom
Interior Custom LED Lighting	48	17.712	53,384	To Be Detailed Further in Future
Bollards	20	0.140	16,267	To Remain Custom
EMS	17	9.285	276,677	To Remain Custom
Windows	15	1.779	433	To Remain Custom
Stairwell/Passageway Luminaires	12	12.415	71,997	In the Market - Jan. 2013
LED Rope/Strip Light	12	0.855	6,658	To Remain Custom

- Some Categories Need to Be Broken Up Further:
  - Exterior Directional Luminaries
    - Quantity of custom apps is increasing although now a prescriptive measure
  - Linear Fluorescent LED Tube Replacements
    - Ensure only Type B lamp applications remain after measures
- New PDx Measures (60-Day Notice or DSM Plan Filing):
  - Linear Fluorescent LED Replacements - Type A and Type C Lamps
  - HID High-Bay LED Replacements
  - Commercial Furnace EC Fan Motors
  - Water-well Pump VFD's
  - Close-the-case Doors for Coolers & Freezers
  - High Efficiency Server Power Supplies



# GOALS FOR 2015 – YEAR END SUMMARY



- Goal: Move equivalent of 600 custom projects from 2014 (roughly 30%) into new prescriptive measures
  - **1,547** of **2,311** Projects Analyzed to date, are associated with measures that either are now prescriptive (Outdoor Area Lighting) or will be prescriptive in January of 2016 (Linear Fluorescent LED Lamps & LED High-Bay Lamps)
    - The reduction in quantity of projects is not expected to be proportional to staff evaluation time as the remaining projects are more difficult.
    - New Technologies will emerge in the market and continue to the custom to prescriptive cycle.
  - Conservatively assuming only 50% of those custom projects become prescriptive, the PDx and the Custom Project Archive processes will have moved the equivalent of **930** projects from custom to prescriptive per year. (...or roughly **33%**)
- Goal: Complete the average PDX process within 4-8 Weeks
  - Currently 12-16 weeks (improving throughout the year)

[NOTE: number of projects is reflective of CO, MN, and NMx]

- Customer
  - Portfolio strategies that are continuously aligned with current consumer demands
  - Increased Customer Choice in prescriptive measure offerings
  - Expected Ripple Effects:
    - Increase in customer participation
    - Generation of additional product input from trade partners
- Portfolio
  - Insight for managing measure mix and adoption rates
  - Reduced Engineering Time and Bottle-necks for Custom Projects
  - Increased Participation

QUESTIONS?  
- THANK YOU -

