• 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
60/90-DAY NOTICES

• Computer Efficiency
  – *Posted:* Sept. 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
  – 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
Q3-2015 ACHIEVEMENT HIGHLIGHTS

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

Gas Portfolio
- 340,497 Net Dth (58% of Target)
- $6.7M Spend (52% 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

Business Programs (Dth Target)
- EMS – 276% of Target
- Recommissioning – 73% of Target
- Heating Efficiency – 49% 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

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
MARKETING CAMPAIGNS & OUTREACH

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

<table>
<thead>
<tr>
<th>Low Income Energy Savings Kit</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Impacts as filed in Plan</td>
<td>Revised per 60-Day Notice</td>
</tr>
<tr>
<td>Electric Energy Savings (kWh)</td>
<td>1,008,759</td>
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<tr>
<td>Electric Demand Reduction (kW)</td>
<td>112</td>
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<tr>
<td>Budget ($)</td>
<td>$289,831</td>
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<tr>
<td>MTRC Test Ratio</td>
<td>2.08</td>
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</table>

<table>
<thead>
<tr>
<th>Single-Family Weatherization</th>
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</thead>
<tbody>
<tr>
<td>Impact as filed in Plan</td>
<td>Revised per 60-Day Notice</td>
</tr>
<tr>
<td>Electric Energy Savings (kWh)</td>
<td>2,379,324</td>
</tr>
<tr>
<td>Electric Demand Reduction (kW)</td>
<td>223</td>
</tr>
<tr>
<td>Budget ($)</td>
<td>$1,358,190</td>
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<tr>
<td>MTRC Test Ratio</td>
<td>0.94</td>
</tr>
</tbody>
</table>

• 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

• 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
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
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
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

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2014</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>2</td>
<td>1</td>
<td>11</td>
</tr>
</tbody>
</table>

- 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 CLEAResult

• 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
DSM PILOT UPDATES
Q3-2015 HIGHLIGHTS

COLIN LAMB
Team Lead, Product Development
# DSM PILOT HIGHLIGHTS

<table>
<thead>
<tr>
<th>PILOT</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Online Energy Feedback</td>
<td>In Progress</td>
</tr>
<tr>
<td>2 Business Energy Feedback</td>
<td>In Progress</td>
</tr>
<tr>
<td>3 Residential Smart Thermostat Pilot</td>
<td>In Progress</td>
</tr>
<tr>
<td>4 Small Business Smart Thermostat</td>
<td>Vendor selection</td>
</tr>
<tr>
<td>5 Building Optimization</td>
<td>In Progress</td>
</tr>
<tr>
<td>6 Multifamily Buildings</td>
<td>In Progress</td>
</tr>
</tbody>
</table>
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
## 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

<table>
<thead>
<tr>
<th>UPDATE</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Launched and doing well, more than 1,200 participants</td>
</tr>
<tr>
<td>2</td>
<td>Marketing push began early September, manufacturers supporting, City &amp; County of Denver + Boulder County Energy Smart as well</td>
</tr>
<tr>
<td>3</td>
<td>About 90% of participants got instant rebate through <a href="http://www.xcelenergystore.com">www.xcelenergystore.com</a></td>
</tr>
<tr>
<td>UPDATE</td>
<td></td>
</tr>
<tr>
<td>--------</td>
<td>----------------------------------------------------------------</td>
</tr>
<tr>
<td>1</td>
<td>RFP proposals received from 3 manufacturers for devices, training, etc.</td>
</tr>
<tr>
<td>2</td>
<td>Initiating contracting with selected vendor</td>
</tr>
<tr>
<td>3</td>
<td>Customers expected to get offering early 2016</td>
</tr>
</tbody>
</table>
DSM PILOT HIGHLIGHTS
BUILDING OPTIMIZATION DR

<table>
<thead>
<tr>
<th>UPDATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
</tbody>
</table>
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

- 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
### DSM PRODUCT DEVELOPMENT

#### Stage 3 Development – Traditional PD

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

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 2nd 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

- Windows
- VSD Air Compressor
- Troffer
- Stairwell/Passageway Luminaires
- Screw-in Lamp
- Pin Base Lamps
- Linear Ambient Luminaires
- LED Rope/Strip Light
- Interior Custom LED Lighting
- High Bay Luminaires
- Exterior Directional Luminaires
- EMS
- Bollards
## CUSTOM PROJECT ARCHIVE: WHAT HAVE WE LEARNED? (CONT.)

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

- 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]
PDX & CUSTOM ARCHIVE BENEFITS

• 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 -