Colorado DSM Roundtable

November 13, 2013
1:00 – 3:00 pm

03G01, 1800 Larimer St.
Denver, CO
Welcome and Introductions

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Agenda

- 1:00 – 1:05 p.m. Welcome and Introductions
- 1:05 – 1:30 p.m. Regulatory Update
- 1:30 – 2:15 p.m. DSM Program Highlights
- 2:15 – 3:00 p.m. Pilots & Product Development
Regulatory Update

Presented by Shawn White

Compliance information available on Xcel Energy’s DSM website:
http://www.xcelenergy.com/About_Us/Rates_&_Regulations/Regulatory_Filings/CO_DSM
2014 DSM Plan: Regulatory Update

- Plan Filed: 7/1/2013
- Answer Testimony Received from OCC: 10/28/2013
- Settlement Agreement Filed: 10/29/2013
- Rebuttal/Cross-Answer Due: 12/6/2013
- Hearing: 12/20/2013
- Decision by 3/1/2014*

*Anticipated date

Docket #13A-0773EG
2014 DSM Plan Settlement Agreement

- **Parties to Settlement:**
  - CoPUC Staff, OCC, CEC, SWEEP, City of Boulder, County of Boulder, City/County of Denver, EOC, EEBC, EnerNOC

- **Parties that did not oppose Settlement:**
  - Climax, CF&I, Noble Energy, and EnCana

- **Party participating amicus curiae:**
  - CEO

- Company responded to 331 Discovery Requests from Parties

Docket #13A-0773EG
Key Provisions of Settlement

- Electric DSM budget – reduce budget flexibility to 7.5%
- Home Lighting & Recycling – reduce NTG ratio from 0.75 to 0.70
- School Education Kits – contents to include 5 CFLs and 1 LED
- Lighting Efficiency & Small Business Lighting – Increase T8 lamp rebates
- Heating System Rebates – add NATE Certification requirement
- Maximize gas DSM budget for participation in ENERGY STAR New Homes & Home Performance with ENERGY STAR; special updates on spending during Roundtables
- Under consideration during 2014 calendar year:
  - Launch Multi-Family Housing Pilot
  - Western Cooling Control Device added to HEAC
  - Smart Thermostat Study Group & Pilot

Docket #13A-0773EG
Key Provisions of Settlement, Cont.

Under consideration for 2015/16 Biennial DSM Plan:

- Evaluation of upstream vendor incentives and DOE RTU Challenge for Cooling Efficiency (Business) product.
- Evaluate Upper-Tier Windows
- Evaluate upstream vendor incentives for lighting distributors
- Update minimum AFUE for Residential Heating System to 95%
- Expansion of Portfolio Manager use for building performance benchmarking
- Local government stakeholder engagement in CEEP Pilot
- Evaluate inclusion of non-lighting measures and financing for Small Business Lighting product
- Evaluate GSHP as potential prescriptive program
Proposed $6.9 million in elect. DSM budget cuts across 10 programs:

Proposed $0.9 million in elect. DSM budget increases, across 8 programs:
- Computers, Data Centers, EM Systems, Lighting Efficiency, Process Efficiency, Self-Directed Custom Efficiency, SB Lighting, Evap Cooling

Proposed changes to lighting technical assumptions:
- Reduce bulb price assumptions, rebate amounts, and coincidence factor
- Increase bulb lifetime assumptions
- Remove incandescent bulbs in calculation of savings
Strategic Issues: Regulatory Update

- Application Filed: 7/16/2013
- Answer Testimony Received: 10/16/2013
- Rebuttal/Cross-Answer Due: 11/20/2013*
- Hearing: 12/16-12/17/2013*
- Statements of Position Due: 1/15/2014*
- Decision Anticipated by 5/1/2014*

- Company responded to 919 Discovery Requests from Parties

*Anticipated date
Answer Testimony: Core Topics

- Energy Efficiency Goals
- Avoided Costs
- Non-Energy Benefits
- Performance Incentive
- DVO and Cost Recovery
- Gas DSM Policy (Budget & Cost Test)
- Solar Thermal and CHP
- LED Street Lighting
- Behavioral Programs
- Demand Response (Goals & Potential Study)
Future Colorado DSM Filings / Meetings

- **February 19, 2014**
  Q4-2013 DSM Roundtable Meeting

- **Apr 1, 2014**
  2013 DSM Annual Status Report

- **July 1, 2014**
  2015/16 Biennial DSM Plan
DSM Program Highlights

Presented by Bill Conrad, Kim Spickard, and David Hueser
Third Quarter 2013 DSM Achievements
Total DSM Portfolio

- 2013 Electric Targets: 87.9 MW; 356 GWh; $86M
- Q3 2013 Achievements: 57.5 MW; 277.8 GWh; $50.5M

- 2013 Gas Goals: 428,310 Dth; $13.3M
- Q3 2013 Achievements: 295,679 Dth; $7.8M
Flood Victim Response Plan

- Flood Victim DSM Rebate Program Approved Oct. 30
- $2.6M in incremental spend for rebate bonuses in 2013 and 2014
- Marketing support: Colorado Energy Office and EEBC
- FEMA registration required
Business Programs

- Cooling Efficiency
  - DEPACC update
- Commercial Refrigeration
Business Programs
DEPACC: System Providers & Installations

HydrEVAP by RCF Inc. distributed by ATEC/Indirex

Dual Cool by Integrated Comfort Inc.

EVAPORCOOL by Evaporcool Inc. distributed by Evaporcool

SmartMist by Cloudburst
Business Programs
Cooling Efficiency: DEPACC

Achievements:
- 2 prescriptive rebates totaling $27,041, yielding 85,398 kWh
- 1 custom project totaling $25,399, yielding 24,692 kWh
- 56 projects identified and more than 110 quotes presented
  - 15,000 tons and 4.1 GWh of energy savings potential for 2014
Business Programs
Cooling Efficiency: DEPACC

- Air Cooled Chillers currently being evaluated as a prescriptive DEPACC measure for 2014
- Cypress, Ltd will continue in 2014 as third-party implementer
Business Programs
Commercial Refrigeration

- Launched on July 18, following 60-Day Notice period
- Offer:
  - Free on-site assessments
  - Direct installation of low-cost measures
  - Refrigeration maintenance and prescriptive refrigeration rebates
- Refrigeration measures added to Cooling Efficiency product in 2014:
  - 5 identical refrigeration measures
  - Customers that don’t take advantage of the “on-site” assessment can receive rebates through the Cooling Efficiency program
Residential & Low-Income Programs

- ENERGY STAR® New Homes
- Saver’s Switch
- Single-Family Weatherization
Residential Programs
ENERGY STAR® New Homes

Program performing very well; will remain open through 2013 year-end due to lower spending in other areas

- 2013 goals: 2,629 homes; 73,357 Dth; 1.6 GWh
- Q3 actual: 1,711 homes; 63,658 Dth; 1.18 GWh
- Targeting 2,700 completed homes by Dec 10
- Manage 2014 gas DSM portfolio to continue ES New Homes and Home Performance with ES throughout the duration of 2014
- Update DSM Roundtable quarterly in 2014 on participation and expenditures in ES programs
Residential Programs
Saver’s Switch®

New customer installations slowing in 2013

- **Customer benefit:**
  - $40 annual electric bill credit, paid each October
  - No control events in 2012; 11 control events in 2013

- **Program participation, cost-effectiveness:**
  - Ended 2012 with almost 160,000 total participants
  - 2012 full year Modified TRC – 2.91
  - Projecting adding 12,000 in 2013 vs. 19,500 goal
  - 2012 program attrition < 0.5%

- **Considerations for 2014 CO DSM Plan:**
  - Estimated penetration among eligible customers >50% suggests higher future recruiting costs
  - Installation goal: 12,000 new customers in 2014
Incorporated new measures and program evaluation recommendations – effective September 2012 – to improve program savings and cost-effectiveness

- Attic and crawl space insulation, water heaters, storm windows added in 2012/13 Plan Settlement
- Program evaluation in 2012 changed CFL target per home, climate zones and home type options
- 2013 forecast: 2,545 homes; 61,653 Dth; 3.7 GWh
- Supplement 2013 savings with individually metered multi-family units
- Augment single-family approach with CEO in 2014
Program ideas can be submitted on Xcel Energy’s DSM website at:
http://www.xcelenergy.com/About_Us/Rates_&_Regulations/Regulatory_Filings/CO_DSM
Product Development Update

Overview

- Supporting Xcel Energy efforts across all states, customer segments, and technologies.
- Leverage data, research, and pilot outcomes from across Xcel Energy’s jurisdictions.
- Energy Efficiency, Renewable Energy, Demand Response, Transportation
- Stakeholder idea submissions
- Pilots
Product Development Update
Stakeholder Idea Submissions

- Radon Safe Homes
- Quarterly Summaries for Customers
- LED High Bay Fixtures
Product Development Update

Idea 1: Radon Safe Homes

- Received August 8, 2013

Description:
- Provide radon mitigation support during low-income weatherization implementation

Evaluation Result:
- Estimated Incremental Cost: $2,000-$3,000/home
- Estimated Incremental Savings: 0
- The Company has added links to State radon resources on our Website, under “Other Safety” here: http://www.xcelenergy.com/Safety&_Education/At_Home&_Work/Other_Safety
Product Development Update

Idea 2: Quarterly Summaries for Customers

- Received August 8, 2013

**Description:**
- Provide customers with a quarterly report comparing their energy usage to the same quarter of the previous year.

**Evaluation Result:**
- The Company is providing this service through the Energy Feedback Pilot, with rigorous M&V
Product Development Update

Idea 3: LED High Bay Fixtures

- Received October 1, 2013
  - Idea in our pipeline since Nov 2011 - Costs have been too high
  - Thanks to Franklin for providing updated information
  - Detailed submission form allowed for quick initial evaluation

Description:
- Suggested prescriptive rebates for LED high bay fixtures

Evaluation Result:
- Simple Payback before Rebate = 2.4 years
- MTRC = 1.97
- This idea has been recommended for full evaluation and potential launch in 2014 via 60-Day Notice
Product Development Update
Getting Your Ideas on the Evaluation Fast-Track!

1. Submit DSM ideas via e-form, available at:
2. Follow the Form instructions and reference the definitions provided.
3. In particular, make sure to fill out the Product Detailed Technical Assumptions part of the form in detail
   ◆ These inputs are necessary in order to calculate the cost-effectiveness of your idea.
   ◆ Data inputs should be supported by references.
   ◆ Additional analysis will be performed by the Company to verify the inputs
Product Development Update

Pilots

- Residential Energy Feedback
- In Home Smart Device
- Electric Vehicle Charging Station
Product Development Update
Residential Energy Feedback Pilot

2013 YTD Results:
- Savings from original print pilot following similar pattern to past years
- Email savings per participant trending flat on electric side; following similar pattern to past years on the gas side
- Savings from the print expansion trending similar to original print group first year savings; we are working with the contracted agent to understand the lower gas savings for the print expansion

| Electric Savings – 15.4 GWh YTD; 90% of Goal |
| Gas Savings – 53,132 Dth YTD; 223% of Goal |
Product Development Update
Residential Energy Feedback Pilot

Electric Savings

Average Savings per Participant

Gas Savings
Product Development Update
In-Home Smart Device Pilot

- Pilot concluded September 30, 2013
- Survey sent to all participants in late September
  - 495 responses received
- Pilot close-out letter sent in early October
  - Option to keep device, or remove and restore old equipment
  - Only 29 uninstall requests received to date
- Pilot evaluation ongoing; results near the end of Q1 2014
Product Development Update
Electric Vehicle Charging Station Pilot

- Determine demand response opportunity available through control of EV charging stations and better understand:
  - Customers’ willingness to allow interruption of charging
  - Available load coincidence with peak demand

| Phase 1 | ✓ Completed installation of 10 planned Level II charging stations
|         | ✓ Successfully initiated 12 charging events |
| Phase 2 | ✓ Completed installation of 10 planned load control relays (e.g. Saver Switch for EVs)
|         | ✓ Successfully initiated 5 charging events |
| Phase 3 | ✓ Engaged multiple vendors (Nissan, Ford, General Motors, and Tesla) regarding leveraging their telematics. Nissan and GM interested in understanding this capability
|         | ✓ Draft SOW to work with GM to test OnStar solution in controlling vehicle charging |