

# 2012 First Quarter Colorado DSM Roundtable Update May 15, 2012

To comply with the 2012/2013 DSM Plan Stipulation and Settlement Agreement, Docket No. 11A-631EG, Decision No. R11-1326, Public Service Company of Colorado ("Public Service" or the "Company") provides the following update regarding product status, including energy and demand savings, achieved product expenditures, implementation changes, and measurement and verification modifications.

## **Product Implementation Status**

Please refer to the attached table for the preliminary first quarter 2012 (through March 31, 2012) product energy and demand savings achieved, and product expenditures and  $CO_2$  and  $SO_2$  emissions avoided. In total, DSM electric products have achieved savings of 117.9 GWh and gas savings of 57,748 Dth by March 31, 2012. This represents 36 percent of the 2012 electric DSM plan's energy savings target of 329.3 GWh and 13 percent of the gas goal of 435,504 Dth. The Commission adopted the 2012 goals for our DSM products in Decision No. R11-1326 issued in Docket No. 11A-631EG.

The following section provides product status activities for the first quarter 2012 in the Business, Residential, Low-Income, and Planning & Research Products, as well as other related activities.

### **Business Program**

Compressed Air Efficiency – In the quarter, the program completed 14 projects yielding 0.7 GWh, or 17% of its annual goal. As expected, savings per participant continues to trend lower. Only one trade partner has proposals in the pipeline, and the 2nd largest trade partner is reporting significant turnover of staff. Other providers are focusing on oil production markets outside of our territory. Therefore, we are forecasting 65% of the full year goal for savings.

In addition to the increased incentive for custom projects, we have started an intensive effort to cultivate trade partner relationships. The themes of our interactions are to remind the trade of the profit potential of the metro-area market, and how our custom incentives are available for any size or type of equipment.

- Computer Efficiency The Computer Efficiency Product completed 2 projects in the first Quarter that achieved 18,265 kWh and 2.0 kW. These are the first two projects for the product since its launch in mid 2011. The pipeline looks strong for 2012 as marketing efforts to promote Virtual Desktops (Thin Clients and Zero Clients) take hold. Continued marketing is planned to further increase awareness of the virtual desktop rebate program and to communicate the benefits of virtual desktops to customers. Also the first of three major computer manufacturers is now enrolled in the program. Significant resources are being placed to enroll the last two major computer manufactures in 2012.
- Cooling Efficiency The Cooling Efficiency Product completed 80 projects in the first
  quarter that achieved approximately .74 GWh and 487 kW. Only 22 projects were completed
  during the first quarter of 2011. A high efficiency cooling expo was held on March 22nd with
  nearly 250 attendees. Survey results from the expo indicated that the majority would be
  inclined to choose high efficiency equipment directly as a result of the expo. The product has
  a strong pipeline for 2012.
- **Custom Efficiency** The Custom Efficiency product completed 9 projects in the first quarter that achieved approximately 287,000 kWh and 92 kW. 49 applications were received in the first quarter. This compares to 44 received in the first quarter 2011.



- Data Center Efficiency In the first quarter of 2012 The Data Center Efficiency product issued engineering approval for 3 completed studies, and issued project preapproval for opportunities worth 2.3 GWh. Program adjustments made in 2011 are proving successful as the product pipeline continues to grow with several new customer applications submitted for various studies and projects. The program shows no impact projects to date, however there are several substantial data center related projects in the portfolio that were initially identified as Custom Efficiency, Custom Cooling, Self Direct and Process Efficiency. When complete, these project impacts will be applied to Data Center Efficiency. The product team continues with in person customer and trade meetings to accurately analyze projects and assist customers through the program. Marketing activities this quarter included implementing phase one of an interactive awareness campaign, and planning work for a DOE/ASHRAE customer workshop slated for second quarter.
- Energy Management Systems (EMS) The EMS product achieved 2.8 GWh of savings, or 30 percent of its annual goal. We anticipate finishing the year above our goal for savings, but within 90 percent of our budgeted spend. For qualifying, pre-approved projects, our efforts to encourage implementation have been successful. As we market to smaller and mid-sized customers, the decline in savings per project has been offset by an increase in the number of projects analyzed.
  - EMS Gas savings were 1,202 Net Dth, which is 42 percent of its goal. We anticipate surpassing our full-year. EMS applicants have not been retail gas customers. However, we have found recent success of dual-fuel projects among our healthcare/hospital customers.
- Heating Efficiency The Heating Efficiency product has achieved 3,690 Net Dth of savings, or 12 percent of its annual goal. The program continues to have sustained awareness and consistent participation. The program underwent an evaluation in 2011 and will have a few minor changes that will be made this year for a few measures. We anticipate finishing the year under goal with steady participation. We are seeing participation in the small business sector producing more savings than the larger commercial and industrial customers.
- Lighting Efficiency The Product achieved 27.4 GWh in Q1, 43 percent of its year end target. 50 percent bonus rebates originally implemented in 2011 to remove inefficient fluorescent T12 fixtures from business facilities "notched down" to 30 percent beginning April 1, so project volume remained steady in the quarter. The proportion of energy savings was highest among 24-hour facilities (such as convenience stores), offices and manufacturing facilities.
- Motor & Drive Efficiency The product achieved 2.9 GWh in Net Gen savings, which is 14 percent of its full-year goal. We have eliminated rebates for new capacity motors of the now-standard NEMA Premium efficiencies. But the majority of savings continues to be from the retrofit of variable frequency drives. In the quarter, we are working to increase awareness of our newly-introduced incentives for Electronically Commutated Motors and Constant Speed Motor Controllers. We are also running a media campaign to increase awareness about motors and drives within HVAC systems.
- New Construction Commercial new construction has remained slow in 2012, but as the
  economy improves new projects are entering the pipeline. Business New Construction has
  continued its mission to help building owners and developers prioritize energy efficiency
  through education and marketing to architects, contractors, and other interested
  stakeholders. Additional marketing efforts have been directed at small businesses to
  increase participation in this underrepresented market.



- Process Efficiency The manufacturing sector is showing a more rapid recovery from the
  recession than most analysts predicted. This positive turnaround has been factored in to yield
  a more favorable 2012 forecast for the product. Therefore, even with a significant 30%
  increase in goal from 2011, Process Efficiency's pipeline looks strong enough to meet yearend goal. New customers joining the program also appear to be picking up with an
  anticipated 4-7 Phase 1 sessions planned for 2012, versus 3 in 2011.
- Recommissioning The Recommissioning Product completed five electric projects in the
  first quarter of 2012 and achieved 694,000 kWh, representing 11% of the product's year-end
  goal. The pipeline growth remains strong due to an uptick in study submissions. The product
  is on track to meet its 2012 goals. The product had no gas participants in the first quarter but
  is anticipated to meet its year-end Dth goal.
- Segment Efficiency The Segment Efficiency Product had no achievement in the first quarter. A large lighting project is scheduled to complete in the second quarter for nearly 1GWh of savings.
- Self-Directed Custom Efficiency

   The Self Direct Efficiency product completed 1 project in
  the first quarter that achieved approximately 146,000 kWh and 17 kW. The pipeline for the
  Self Direct product is strong.
- Small Business Lighting The Product achieved 13.2 GWh, 116 percent of its 2012 target, due to continued project volume related to fluorescent T12 fixture removal. Participation levels are good among property managers with smaller buildings, and small- to medium sized city, county and town facilities.
- Standard Offer New projects have slowed considerably with only three applications submitted in 2012. However, the pipeline for 2012 is strong and should allow us to meet gas and electric goal.

# **Residential Program**

- ENERGY STAR New Homes The ENERGY STAR New Homes Product continues to perform well, even with the struggling economy. Participation in first quarter of 2012 exceeded our forecast for this period. 486 homes were rebated in the first quarter with additional completed homes in the queue that were not processed until April.
- Evaporative Cooling Rebates Marketing and Advertising have been working on the extensive Evaporative Cooler advertising campaigns, as well as creating new point of purchase materials with our manifesto design located in retailer stores. Additionally, our annual Evaporative Cooler trainings were conducted from March 27-29 both in Denver and Grand Junction, where we partnered with Nexant, Inc. and the trainings included best practices in field and our rebate program. As of the end of March, the company had received approximately 120 applications, providing 69,171 net generator kWH. The Evaporative Cooler season begins in mid-April and our partner WECC, has already begun to see retailers beginning to put up merchandise slightly earlier than normal due to warmer weather in our region.
- Heating System Rebates Participation in the first quarter has been lower then in past
  years due to the elimination of promotions and mass marketing in late 2011. Almost 800
  contractors are registered with the product and 1,005 customers took advantage of the
  rebate, providing 8,102 Dth of savings through March 2012 which is 15 percent of the year
  end goal.



- High-Efficiency Air-Conditioning The High Efficiency Air conditioning program kicked off 2012 with no major program changes, however, it has been selected to have a program evaluation in which program changes will likely result in 2013. The mandatory contractor training will be held in partnership with the Energy Efficient Business Coalition in April. As this is a cooling program, product management won't see much participation until May.
- Home Lighting & Recycling The Home Lighting program launched a comprehensive campaign promoting CFLs and LEDs. It began in February with new television and radio advertisements promoting CFLs and LEDs. Other supporting promotional elements included bill inserts, radio remotes and internet advertising. The response has been very positive. The program has motivated sales of over 1.3 million bulbs and achieved 58 net generator GWh in energy savings. This includes sales of over 10,000 LEDs bulbs.
- Home Performance with ENERGY STAR The Home Performance with ENERGY STAR program launched in 2012 with several big program changes. Due to the program's underperformance since its launch in 2009, several program enhancements have been identified and implemented for this program year. Contractors are now required to be certified and then the program verifies that the certification is current. Customers are no longer required to complete five improvements as now it's a required three which can now be a cooling measure such as evaporative cooler or air conditioner. With several of the changes in place, Product Marketing plans to see an increase in customer participation and contractor support.
- Insulation Rebate The Insulation rebate program continues to be a successful and very popular program with current participation of 1,602 committed applications, which is slightly under, approximately 39 percent less then where we were at in March 2011. This can be attributed to pull back on all natural gas advertising and media, as well as competition of many city and community programs that were in addition to our rebates. Additionally, as apart of the 2012 Settlement Agreement, the Insulation rebate program is currently conducting stakeholder meetings to further improve the program standards and quality assurance measures. As of the end of March, the Insulation program has achieved 23,985 Net Dth (30% YTD), and 256,357 net generator kWh (60% YTD).
- Refrigerator Recycling The Refrigerator Recycling Program started in 2012 with no major program changes, however, in the 2012 Settlement Agreement, the Company agreed to explore adding a freezer and primary refrigerator component to the current program if deemed cost effective, as well as issuing an RFP to further evaluate program costs and suppliers. The additional components were evaluated and deemed cost effective. The new components in the program were launched on March 21<sup>st</sup>, 2012. Additionally, the Refrigerator Recycling program did conduct an RFP which successfully selected a supplier and decreased program recycling and operational costs by 41 percent. As of the end of March, the refrigerator recycling program currently has participation at 241 units, and over 169,000 net generator kWh.
- School Education Kits As of end of March, Resource Action Programs (RAP), our third party provider, had currently outreached to our participation goal of 30,000. The Company has recently revised the kit design and edited pieces of the Student Workbook and Guide to include Compact Fluorescent Lamp recycling and proper disposal. Completed installation rates and impacts to this program are expected in early fall of 2012.
- Showerheads The Company is preparing for its 2012 campaign, which will launch in May. The program is hoping to reach approximately 24,000 natural gas and electric customers, which will equate to energy savings of 30,559 Dth and 786,161 Gen kWh.



- Water-Heating Rebate The program has seen limited participation but is performing at an improved pace over 2011 for both electricity and natural gas programs. It has achieved 1,202 Net Dth natural gas savings or 10 percent of annual goal with 519 participants. For electric water heater participation, the program has achieved 10,948 kWh savings or 2 percent of goal and has a significant barrier to entry including high product cost, despite a very good rebate amount.
- Saver's Switch® Marketing activities are under way. As of the end of March, the company had received approximately 1,600 signup requests and 778 switches have been installed.

### **Low-Income Program**

- Energy Savings Kits In the first quarter Public Service began the redesign of the kit box and materials in an effort to make the kit stand out to customers. The new materials will be offered in both English and Spanish. Designing, printing and ordering of the new boxes and kit materials delayed the start of the product.
- **Multi-Family Weatherization** In the first quarter, Public Service did not receive any projects for the Multi-Family Weatherization Product.
- Non-Profit Energy Efficiency Through the first quarter of the product, Public Service has received three completed non-profit projects. These projects were approved in 2011 and completed in 2012. Five additional projects were received for approval in the first quarter.
- Single-Family Weatherization The Single-Family Weatherization program continues to work in partnership with the Governor's Energy Office receiving completed projects on a monthly basis. Product Management is working with engineering to complete the evaluation of new program measures proposed from 2012-2013 DSM Plan Settlement and the 2011 Program Evaluation results. There will be several program energy savings modifications along with new measures incorporated into the program for 2012.

## **Indirect Program**

- Business Energy Analysis At the end of the first quarter Energy Analysis has reached 26% of its 2012 goal. Improved processes and contractor consolidation has resulted in shorter project turn-around times for customers and lower operational costs. Energy Analysis utilizes online and onsite tools to identify energy efficient solutions to business customers by providing them with actionable items to reduce energy and costs through DSM programs.
- Consumer Education Business Through the first quarter of 2012 this product achieved 89 percent of the product target with 1,763 participants. Public Service executed a campaign which included an Energy Solutions newsletter, event marketing, stakeholder relations, educational workshops, and distribution of Smart Energy Employee materials.
- Consumer Education Residential Through the first quarter of 2012 this product achieved 107 percent of the product target with 72,819 participants. Primary activities included execution of a mass media ad campaign used in print, radio, and Web; development of the "ResponsibleByNature.com" web presence; participation in community based marketing events statewide; educational workshops; and neighborhood sweeps.
- **DSM Planning & Administration** During the first quarter of 2012, work primarily focused on the re-filing of the 2012/2013 DSM Plan incorporating the settlement agreement into the plan document. This updated plan was filed with Colorado PUC on February 28, 2012.



Additionally, we worked on compiling the information for the 2011 Annual Status Report that will be filed on April 2, 2012.

- Residential Home Energy Audit The newly redesigned Home Energy Audit program launched February 1. At the end of the first quarter we have rebated 300 completed audits through the new software tool, Snugg Home's iAudit Pro. Product marketing conducted three contractor program and software trainings in which we trained 125 contractors on the new program which represents 70 companies.
- **DSM Market Research** For 2012, two residential programs will be evaluated, Residential High Efficiency Air Conditioning and Low Income Energy Savings Kits. For business, Process Efficiency will be evaluated. All evaluations kicked off in February as scheduled and are in process. All staff interviews are complete and now survey instruments for participants, non-participants and trade allies are in development.
- **DSM Product Development** During the first quarter of 2012, the DSM Product Development team continued with development of new products for 2012 and/or the next Biennial Filing.

No new products were launched in the first quarter of 2012.

The following products were in the Stage 4 (Product Development) of the Product Development Process.

- ASD/VFD Study
- o Turn-Key Services
- Prescriptive Refrigerated Case Efficiency
  - Anti-Sweat Heater Controls
  - Zero Energy Glass Doors
- Low loss filters for Air Compressors (Mist Eliminators)
- o Retrofit EC motors for existing residential furnaces
- o Foodservice Equipment
- High Efficiency Computer Monitors
- LED Wall Pack fixtures
- o Primary Refrigerator/Freezer Recycling Rebate

The following products were in Stage 3 (Concept Evaluation) of the Product Development Process:

- o Bi-level Stairwell Fixtures
- o Commercial Efficiency
- o Lighting Fixture Reduction
- o Plan B RTU's
- o PC Power Management
- o Outdoor resets for residential boilers
- o Residential Multi-family

In accordance with the 2012-2013 DSM Plan Stipulation and Settlement Agreement, the following product is in Stage 2 (Framing) of the Product Development Process:

- Energy Efficiency Financing
  - Stakeholder meeting held April 18, 2012

Development on the following products was discontinued:



Prescriptive rebates for residential condensing boilers (Not cost effective)

The following RFP's were issued in accordance with the 2012-2013 DSM Plan Stipulation and Settlement Agreement:

- o RFP for Small Commercial and Residential AC Tune Up Program
  - Two proposals received, currently being evaluated
- o RFP for Innovative Technology
  - 55 proposals received, currently being evaluated
- Energy Feedback Pilot The residential Energy Feedback Pilot continued to provide savings for participants during the first quarter of 2012. Preliminary results show total savings of about 1,400,000 kWh and 13,000 Dth for January, February and March. The average savings percentage per household is beginning to ramp up and is now at nearly 1% for electric and gas.
- In-Home Smart Device Pilot Final installations within the SmartGridCity (SGC) footprint were completed early this year bringing the total number of in home smart devices deployed within SGC to 101. Sixty six (66) of these participants are also enrolled in the Advanced Pricing Pilot while thirty five (35) are on standard pricing. Recruitment and installations have now begun outside of SGC. The goal is to have approximately 1,100 devices installed by this summer. We will begin initiating control events this summer. The pilot will run through September of 2013.
- Electric Vehicle Charging Station Pilot Currently, the Electric Vehicle Demand Response
  pilot is awaiting Device delivery. The control devices are scheduled to be delivered in late
  May. Once delivered several of these will be installed and tested before recruiting customer
  participation in 2012.
- Building Energy Code Support Pilot The pilot has been launched. We are in the process
  of talking to qualified Jurisdictions about participating in the pilot. We have just signed the first
  of two vendor contracts with Colorado Code Consulting to be our training contractor. We are
  in the final selection process for the second vendor to do the evaluation work.
- **Measurement & Verification** Our third-party verification contractor, Nexant, has been conducting random field inspections for our prescriptive products. Results so far are good with no major deviations from reported savings.

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