



2013 Second Quarter Colorado DSM Roundtable Update August 15, 2013

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 (M&V) modifications.

Product Implementation Status

Please refer to the attached table for the preliminary second quarter 2013 (through June 30, 2013) product energy and demand savings achieved, product expenditures, and CO₂ and SO₂ emissions avoided. In total, Demand-Side Management (DSM) electric products have achieved savings of 183.8 GWh and gas savings of 162,205 Dth by June 30, 2013. This represents approximately 53% of the 2013 electric DSM plan's energy savings target of 345 GWh and 37% of the gas goal of 428,310 Dth. The Commission adopted the 2013 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 second quarter 2013 in the Business, Residential, Low-Income, and Planning & Research Products, as well as other related activities.

Business Program

- **Compressed Air Efficiency** – The product is on pace to have its most successful year since 2010. Through the second quarter, 37 projects yielded 1.8 GWh, or 43% of the year-end goal. However, project sizes remain small. We are continuing efforts to keep trade partners interested in the Denver metro market. Comprehensive evaluation of the program is also currently underway.
- **Computer Efficiency** – The computer efficiency product achieved 2.617 GWh of energy savings in the second quarter of 2013. The product is forecasted to have a solid year. The tablet computer has not gained significant traction in the commercial and industrial marketplace and, thus, is not significantly affecting PC sales to commercial customers, leading to the continued success of these upstream measures.
- **Cooling Efficiency** – The program achieved an additional 1.588 GWh of net electric energy savings in the second quarter. The pipeline remains strong for the year and the program is expected to meet the year-end goal. Direct Evaporative Pre-Cooling continues to generate a great deal of interest among trade partners.
- **Custom Efficiency** – The program achieved 1.6 GWh of net electric energy savings and 245 Dth in gas savings in the second quarter. The pipeline is strong with several projects in the final stages of review.
- **Data Center Efficiency** – Through the second quarter, the program achieved 6 GWh of energy savings, all of which had multi-year sales cycles. We continue to focus on building a longer term pipeline of data center studies. Within the quarter, marketing efforts have focused on two large data centers that have been reluctant to participate. The Company has conducted trade partner outreach and is continuing to pilot use of a third-party for customer project management.
- **Energy Management Systems (EMS)** – The product has achieved 4.3 GWh, or 46% of its year-end goal. Though it was a somewhat disappointing second quarter, the program is still

forecasted to meet its year-end goal due to an observed increase in applications in the month of July. However, sales cycles continue to be long. Customer site visits and education of trade partners have continued.

The program has had no cost-effective gas-only projects, but continues to achieve gas savings that are ancillary to electric projects. To date, the program has captured 2,381 Dth, or 77% of its year-end goal.

- **Heating Efficiency** – The Heating Efficiency Product had 79 participants in the second quarter of 2013 and achieved gas savings of 9,052 Dth, representing 29% of the products year-end goal. The product results are anticipated to finish under the year-end goal, but an increase in participation is anticipated during the coming months. We continue to see the small business sector participants yielding more savings than the larger commercial and industrial customers. An upcoming Heating Advisory Board session is being planned; and technical education for contractors continues.
- **Lighting Efficiency** – Lighting Efficiency finished the second quarter at 81% of the year-end goal. The early year savings are attributed to the recent lapse of the T12 retrofit application deadline (May 1, 2013), in which all 2012 projects must be submitted for rebate. After May 1, the product has continued to see a steady increase in customer rebates for LED products. The Product Marketing team is working with the Product Development and Engineering teams to research and evaluate a midstream LED screw-in incentive that would launch in 2014. The Company is broaching the idea with Colorado stakeholders and manufactures, and analyzing existing utility C&I midstream lamp programs. The team is also evaluating the potential for new LED prescriptive measures by working through the product development process.
- **Motor & Drive Efficiency** – To date, the product has achieved nearly 21 GWh of customer savings, which yielded 14.5 GWh in Net Gen savings, or 60% of the year-end goal. Variable frequency drives (VFDs) represented 92% of that achievement. The small EC Motors within refrigeration continue to gain momentum, as we are now realizing more than 100 units per week. Impacts from traditional motors remain negligible due to the increase in product standards. The 2013 media campaign continues to increase awareness about VFDs within HVAC systems. To date, that campaign has been very successful, as measured by click-throughs and the number of participants who have mentioned our radio and print ads.
- **New Construction** – Commercial New Construction is showing a slight improvement in 2013, with over 40 new project starts in the first half of the year, as compared to 30 new project starts during the first half of 2012. This momentum will help build a solid project pipeline. The program continues to help building owners and developers prioritize energy efficiency by educating and marketing to architects, contractors, small and large businesses, and other interested stakeholders.
- **Process Efficiency** – While achievements slowed in the second quarter, the program is still on track to achieve the year-end goal, with several large projects in the final stages of M&V review. *Phase One Sessions* slowed down significantly in the second quarter and are being transitioned to the *Phase Two Scoping* stage.
- **Recommissioning** – The Recommissioning Product has achieved 45% of its year-end kWh goal and has fully met its 2013 year-end gas savings goal. Pipeline growth remains strong due to continued study submissions from all segments, but particularly from the commercial building and hospital segments. Additional marketing efforts are planned in Q3 targeting both our trade partners and customers through an educational seminar highlighting the benefits of performing a recommissioning study.

- **Segment Efficiency** – The Segment Efficiency program realized its first energy savings achievements of the year during the second quarter. The third-party consultant is continuing to serve as the program study provider, following up on potential customer leads coming through account management and the business solutions center. They are also working with the Company on communication and advertising needs, which will drive additional participation in future quarters.
- **Self-Directed Custom Efficiency** – Two large projects have been implemented at customer facilities and are currently undergoing M&V review. It is unlikely that these two projects alone will result in year-end goal achievement, so a promotion is being initiated in the second part of the year to realize additional savings in 2013, and, largely, to build the pipeline for 2014 and beyond.
- **Small Business Lighting** – The product achieved 80% of its 2013 year-end goal during the second quarter. This achievement is attributed partially to the remaining T12 removal projects closing out by the May deadline and also customers taking advantage of the newly launched optimization rebates. The product continues to see marked increase in participation in LED measures. Participation levels are expected to remain strong through the year-end as a result of continuous education and marketing efforts targeted to both the customer and trade partners.
- **Standard Offer** – The pending closure of the product is accelerating project completion. Although the product is currently only at 30% of the year-end electric goal, the remaining projects in the pipeline make the 9.1 GWh goal attainable. Natural gas achievement is already at 130% of the year-end goal, with additional potential by year end.

Residential Program

- **ENERGY STAR® New Homes** – The ENERGY STAR® New Homes product is on track to exceed the year-end savings goals. Total enrollments have surpassed 2,000 homes and of these, 1,165 have successfully completed the product requirements. Nine homes completed the new ENERGY STAR® v3 tier requirements, earning the highest rebate. Product funds are expected to deplete by mid- to late-October, and the product will likely close for 2013 at that time. Participants have been kept apprized of the product status and the potential for early closing, through monthly communications. These communications will increase to bi-monthly beginning September 1.
- **Evaporative Cooling Rebates** – The Evaporative Cooling Product has seen continued success through the combination of consumer retail advertising complimented by eye-catching point of purchase marketing collateral at big box retailer locations. Radio advertising has continued through the third quarter and we are seeing continued growth with the customer call-to-action to scan QR codes to receive the rebate application instantly delivered via email. As of the end of June, the company had received approximately 999 applications, providing 731,250 Net Gen kWh, slightly behind this point last year; this is primarily attributed to a cooler summer this year. To also compensate for the slower start to the cooling season, since our weather has been cooler and the warm up started later than last summer, we have significantly increased awareness both internally and externally for optimal employee and contractor outreach. Specifically, a contractor promotion has been developed and launching soon for increased awareness and sales incentive.
- **Heating System Rebates** – Through the second quarter of 2013, the program registered over 1,900 participants and over 27,000 net Dth gas savings—over 50% of its 2013 goal—on just 31% of its 2013 budget spent, driven primarily by continued high-efficiency (94% and above AFUE) furnace installations. The deadline for contractors and customers to turn in 2012 paperwork is July 31, 2013, and that deadline should drive a small spike in projects committed in Q3 2013.
- **High-Efficiency Air-Conditioning** – The High Efficiency Air Conditioning (HEAC) Product participation numbers are stronger than those seen for the product during the same period last

year by approximately 30%. Of the 154 trade partners approved to offer the HEAC rebates, 25 are new to the program this year; the NATE Training offered in spring 2013 appears to have made an impact. M&V will be completed by October.

- **Home Lighting & Recycling** – The Home Lighting and Recycling product is on track to meet the year-end goal. Incentives for specialty CFLs were increased this year, discounted up to \$3 each, as were LED incentives, up to \$10 each. Many new LED models are on the market and have been added to the portfolio. To ensure quality control, the Company requires bulbs receiving incentives to be ENERGY STAR® certified and is using TopTenUSA.org to identify better performing LEDs. LED sales are growing substantially. LED bulbs sold through the product in 2013 are expected to be three times higher than in 2012.
- **Home Performance with ENERGY STAR®** – The Home Performance with ENERGY STAR® program continues to have successful participation levels in the Colorado territory. Overall, the program has seen an increase in participation following adjustments to the SnuggHome software utilized in the Home Energy Audit, and is on track to exceed year-end goals by third quarter. A 60-Day Notice was filed to align the program with our standalone programs in May, and contractors were trained on the improved tool additions and 60-Day Notice changes. Additionally, the Home Performance with ENERGY STAR® product is currently undergoing an evaluation by Cadmus, in partnership with the Company, which will be completed near year end. Year-to-date, the program has received over 396 applications resulting in 330,793 kWh and 10,972 Dth of energy savings.
- **Insulation Rebate** – As of the end of June, the 2013 Insulation rebate program has received over 1,924 applications which account for 2,720,335 kWh and 34,215 Dth of energy savings. The Marketing team is now beginning onsite M&V of the 2013 program, with realization rates expected in early Q3. The revised program is continuing to perform well under the new requirements, and has delivered multiple contractor trainings, including additional, specific safety trainings on Combustion Appliance Zones (CAZ).
- **Refrigerator Recycling** – The Refrigerator Recycling program continues to be a success with the additions of freezers and primary units as measures of the program. As of the end of June, 2,400 units had been recycled with anticipated energy savings of 1,560,000 kWh.
- **School Education Kits** – As of the end of June the program, had reached the year-end total enrollment goal of 30,000 participants. In addition, focus groups were conducted with participating teachers in the Colorado region to help increase satisfaction with the program overall, and to ensure alignment with curriculum. Results of the focus group will be completed in early fall. Completed installation rates and impacts to this program are expected in early fall of 2013 as well.
- **Showerheads** – The Company launched its 2013 showerhead efficiency campaign in May; 300,000 natural gas and combination (natural gas and electric) customers received an offer for a free energy-efficient massage showerhead. The campaign's goal is to achieve energy savings of 583,545 Gen kWh and 22,656 Dth.
- **Water Heating Rebate** – Participation in the program has continued to be slow, but steady, and has improved over 2012 (for both natural gas and electric programs). As of the end of June, the program achieved 3,669 Net Dth of energy savings, which is 31% of the year-end goal, through 1,110 participants. The program has achieved 76,703 Net Generator kWh of energy savings, which is 14% of the year-end goal, through 33 participants.
- **Saver's Switch®** – An intensive marketing effort is under way. To date, the company has received approximately 11,000 sign-ups and has deployed 2,920 devices on customer premises.

- **Pool Pumps** – The residential pool pump program launched April 29 with eight program partners (pump distributors, retailers, and installers) brought on board by Ecova, the third-party program implementer. Initial marketing tactics focused on supporting partners' efforts, which included a mailer that was sent with monthly invoices. Personalized program training and support for partners was provided by Ecova's Field Coordinator and customer facing marketing materials were developed and made available. We quickly learned program partners were behind in their seasonal start-up commitments (due to the weather), which left little time for them to become actively involved in the program. Slow adoption program by program partners coupled with the challenge of identifying customers with in-ground swimming pools, has led to a revision of the year-end participation goal downward from 1,100 to 350 participants. A direct mail postcard targeting approximately 4,300 customers is being planned for July and a second is targeted for August. Marketing efforts are being leveraged with other DSM products such as the Home Energy Audit and Home Performance with ENERGY STAR® products. Auditors in both products received product training and were provided with marketing materials. The HEA software was altered to enable auditors to add swimming pools to the report. Other marketing tactics and a vendor incentive promotion are being planned.

Low-Income Program

- **Energy Savings Kits** – In the last quarter, the Company distributed more than 8,000 kits to low-income customers. Although installation reports have not yet been received, the Energy Savings Kits program is well on its way to reaching its 2013 year-end goal. In order to ensure the program reaching its 2013 goal, the Company will send out one final mailing to low-income customers in the next quarter.
- **Multi-Family Weatherization** – Public Service continues to partner with Energy Outreach Colorado (EOC) to help fund equipment retrofits and process improvements for natural gas and electric energy efficiency measures in low-income, multi-family buildings. Although no energy savings were logged in the second quarter of 2013, EOC identified, and the Company analyzed nine new multi-family projects. The majority of projects that have been identified year-to-date are anticipated to be committed and rebated in 2013.
- **Non-Profit Energy Efficiency** – In the second quarter of 2013, EOC identified, and the Company analyzed, 10 new non-profit energy efficiency projects. Although no energy savings were committed in the first quarter of 2013, the program's pipeline includes projects identified in 2012 and advanced to measure-implementation stage in 2013.
- **Single-Family Weatherization** – The Single-Family Weatherization program continues to work with the Colorado Energy Office (CEO), who manages the statewide weatherization program. The Company receives a list of customers served and projects completed on a monthly basis from CEO. In an effort to ensure that the program will reach the 2013 goals, we have been working closely with, and providing educational support to, the contracted weatherization agencies.

Indirect Program

- **Business Energy Analysis** – Energy Analysis is an indirect-impact product that utilizes online and onsite tools to identify energy efficient solutions to business customers by providing them with solutions for reducing energy and costs through DSM programs. Participation in Q2 has been slow – totaling 41 participants. In an effort to increase the number of Onsite Energy Assessments, a revised energy report will be offered to business customers in Q3. The report, developed in partnership with Nexant, will offer customers a comprehensive look at a facility's energy use and identify energy conservation opportunities and payback periods. Training will be arranged with BSC and Account Management to introduce and explain the new features,

improvements, and SFDC process updates. A marketing effort is planned in Q3 targeting both trade partners and customers.

- **Consumer Education Business** – Business Consumer Education is an indirect-impact program that focuses primarily on creating awareness of energy efficiency within business through information and resources to help them manage their energy use. In the second quarter of 2013, the Business Education program delivered 2,059 interactions against a total interaction goal of 1,978 (or, 104% of the 2013 year-end goal). Participation and outreach through key community and trade association events continue to create a meaningful conversation with customers. In addition, the program has been supported through energy efficiency messaging via the Energy Solutions newsletter, as well as a mass marketing print, online advertising, and social media campaign. The combination of these initiatives continues to support the participation goal.
- **Consumer Education Residential** – Consumer Education is an indirect-impact program that focuses primarily on creating awareness of energy conservation while providing residential customers with information and resources on what they can do in their daily lives to reduce their energy usage. In the second quarter of 2013, the Consumer Education program delivered a participation goal of 64% (43,732 participants). Participation and outreach through key community events continues to create a meaningful conversation with customers. To date, the Company has provided outreach through 51 community-based event/outreach days. In addition, the program has been supported through conservation messaging in residential newsletters, as well as a mass marketing radio, print, and web campaign. The combination of these initiatives continues to support the participation goal.
- **Residential Home Energy Audit** – During the first quarter of 2013, the Home Energy Audit program focused on suggested improvements to the SnuggHome software tool resulting from a focus group with our top contractors, held in April. Those additions were included with changes that coincided with the 60-Day Notice for Home Performance with ENERGY STAR® that was filed in May.
- **Energy Efficiency Financing** – Energy Efficiency Financing is an indirect-impact program that launched in 2013. This product is intended to increase customer participation in the Company's direct impact energy efficiency products and was produced as a result of the Settlement process for the 2012/2013 Biennial DSM Plan. To facilitate this program during the first quarter of 2013, conversations were initiated with financial institutions and established alliances to help promote and support these independent energy efficiency financing products (residential unsecured and secured loans and business unsecured loans). At the end of the first quarter of 2013, five alliances had signed Memorandum of Understandings (MOUs) for participation. For each product, the Company is actively marketing the loan products to targeted DSM segments using contractor trainings, direct marketing, event promotion, and posting pertinent information online.
- **DSM Planning & Administration** – During the second quarter of 2013, work primarily focused on completing the Strategic Issues filing on June 17 and the 2014 DSM Plan on July 1. The following 60-Day Notices were posted during the quarterly: Commercial Refrigeration, Energy Efficient Showerheads 2013, Heating System Rebates 2013, Heating Efficiency 2013, Compressed Air Efficiency 2013, Motor & Drive Efficiency 2013, High Efficiency Air Conditioning 2013, Data Center Efficiency 2013, Cooling Efficiency - RTU Early Retirement, and Home Performance with ENERGY STAR 2013.
- **DSM Market Research** – There are three program evaluations in 2013: Residential Home Performance, Business Compressed Air, and Business Segment Efficiency. All 2013 evaluations were kicked off and are targeted for completion by the end of 2013. Business Segment Efficiency will be a process-only evaluation due to the small number of participants, for which deriving a net-to-gross is unreliable. Compressed air custom will be included in the process evaluation, to result in an understanding of the overarching challenges with program participation, and to identify opportunities for improvement. The research vendors for the evaluations are currently preparing

to interview program trade allies, peer utility program contacts, and participants and non-participants.

- **DSM Product Development** – During the second quarter of 2013, the DSM Product Development team continued development of new products for the 2014 DSM Plan and subsequent 60-Day Notices.

The following products were launched:

- Direct Evaporative Pre-cooling for Air-Cooled Condensers (DEPACC)

The following products were added through a 60-Day Notice:

- Commercial Refrigeration

The following products were included the 2014 DSM Plan:

- Direct-Evaporative Pre-cooling for Air-Cooled Condensers (DEPACC)
- Prescriptive Refrigerated Case Efficiency
 - Anti-Sweat Heater Controls
 - Zero Energy Glass Doors
- EC Motors (for new residential natural gas furnaces)
- Commercial Refrigeration
- Building Tune-up – Scaled-down Recommissioning Study (targeted to buildings less than 75,000 square feet)
- Business Energy Feedback Pilot (reports are targeted to Small Business)
- Dew Point Demand Controls
- Cycling Dryers
- Mist Eliminators
- Parking Garage LEDs

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

- Turn-Key Services – This product continues to be tested in our Minnesota (MN) service territory. We will continue to review the MN results to determine whether changes need to be made before it is developed for a 2013 launch in CO.

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

- Residential Multi-family
- Parking Lot LEDs
- LED Troffers
- LED Streetlights (customer-owned)

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

- RFP for Innovative Technology
 - The last of the four selected proposals was added through a 60-Day Notice. The Company will assess the cost effectiveness of issuing an RFP for new technology and/or program delivery models in the future.

The following RFP was issued in accordance with the 2011 DSM Plan Stipulation and Settlement Agreement:

- A 60-Day Notice was posted to close-out the review of early retirement of commercial rooftop unit A/C (RTU Early Retirement). This measure was determined to be marginally

cost-effective with a very high program cost compared to the peak demand and energy saved. The measure will not be added to the Cooling Efficiency program at this time.

- **Energy Feedback Pilot** – Savings results are now observable for the additional 50,000 participants that began receiving Home Energy Reports (HER) in January. Energy savings have ramped up at a rate similar to the original print participants, with electric savings going over a one percent of consumption mark in June. The original group of Energy Feedback participants continues to deliver energy savings. Electric savings per participant have grown 33% since 2012 for those receiving print reports, but have fallen 10% for those receiving e-mail reports. The print results support the premise that incremental behavioral savings can be achieved by longer participant exposure to the program. The e-mail results may indicate that print is a more effective channel of communication for this program, but it also may be premature to draw conclusions from six months of results.
- **In-Home Smart Device Pilot** – The summer control event season kicked off with the first event on June 10. Control events, called upon when high temperatures stress the grid, result in a setback of participants' thermostats by five degrees and a shut-down of two participating appliances. Participants can opt-out of a control event at anytime before or during the event, and can also configure their systems with a customized temperature setback and choose which, if any, appliances will participate. Participation in control events has decreased since 2012, from an average of 51% to 43%. The Company will continue to focus on customer support by addressing technical issues as they arise, managing customer attrition (primarily in the form of customer moves), and by proactively reaching out to customers whose devices are offline to encourage continued participation.
- **Electric Vehicle Charging Station Pilot** – The Charging Station Pilot consists of three phases, each testing a unique control technology. *Phase I:* Deploy market-ready electric vehicle charging stations to insure participants are available during the summer control season. Ten systems have been installed and six charging events have been called. *Phase II:* Install load control devices on customers' existing EV chargers. Devices have been ordered from the selected vendor and participants have been identified. Installations are planned to begin in August 2013. *Phase III:* Work with automotive OEMs to investigate using existing on-board controls in the future. The Company has begun discussions with the General Motors OnStar team to determine if a demonstration project can be designed to test the ability to leverage OnStar's onboard technology for facilitating the use of electric vehicles as Demand Response resources.
- **Building Energy Code Support Pilot** – HMG, the evaluation contractor for this pilot, completed the preliminary evaluation on the effectiveness of the Code Support Pilot in driving increased compliance. HMG found that targeted training delivered to three jurisdictions succeeded in increasing the residential compliance rate by five percent. However, baseline compliance was already very high at 90%. The pilot also determined that the U.S. Department of Energy's (DOE's) Building Energy Codes Program (BECPP) protocol was an effective tool for tracking and evaluating code compliance. It was not sufficient on its own to determine energy savings from code compliance improvements.
- **Community Energy Efficiency Planning (CEEP) Pilot** – We have successfully begun energy efficiency planning with three committed communities creating the framework, mechanisms, and outreach tactics for helping residents, businesses, and organizations more effectively manage energy use and costs. Through this planning we collaborate for stronger, more competitive communities and the communities' participation illustrates their proactive energy leadership in Colorado. Specifically, in this phase we are working to provide, through workshops, the framework to identify and define several low-cost means/projects to drive additional conservation and enhance their community customer's engagement in DSM programs. The Brendle Group, a third-party provider, leverages their expertise and available energy data and tools, to meet and exceed customer expectations in their planning phase as they collaborate with key community stakeholders. In the third quarter, Brendle has planned several stakeholder workshops with two

of the three communities to help them identify energy conservation opportunities, provide technical support throughout the planning process and to help vet implementation strategies and efficiency projects. We are continuing to work to add on a fourth community, which would round out the participant communities in a positive and beneficial way.

- **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.