BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF COLORADO
****

IN THE MATTER OF THE APPLICATION OF EASTERN COLORADO UTILITY COMPANY FOR AN ORDER APPROVING A GAS DEMAND SIDE MANAGEMENT PLAN	)))))	DOCKET NO. 08A-541G

SETTLEMENT AGREEMENT AND MOTION FOR APPROVAL OF SETTLEMENT AGREEMENT

COME NOW Eastern Colorado Utility Company ("Eastern" or the "Company"), Trial Staff of the Colorado Public Utilities Commission ("Staff") and the Colorado Office of Consumer Counsel ("OCC") (collectively referred to as "the Parties") by and through their respective undersigned counsel and submit this Settlement Agreement ("Settlement Agreement") to resolve all undisputed issues that have arisen or could have arisen in this docket regarding the verified application for an order approving Eastern's natural gas demand side management plan in accordance with Rules 4750 through 4760 of the Commission's Rules Regulating Gas, Utilities and Pipeline Operators. Eastern also requests authorization to place into effect its Gas Demand Side Management Cost Adjustment ("Gas DSMCA") tariff and to implement Gas DSMCA rates. The Parties submit that this Settlement Agreement represents a fair disposition of all disputed issues in this docket and that this Settlement Agreement is just and reasonable. Therefore, the Parties respectfully request that the Commission

vacate all remaining filing dates and deadlines, vacate the hearing set for June 2, 2009, and approve the Settlement Agreement.

I. PROCEDURAL HISTORY

1. On December 3, 2008, Eastern filed its application for an order approving its Gas DSM plan and Gas DSMCA tariff. The Commission issued its Notice of Application filed on December 4, 2008. Staff and the OCC timely intervened and are the only other parties in this docket.

2. By Decision No. C09-0045, the Commission deemed the application complete and referred to this matter to an Administrative Law Judge for a recommended decision.

3. On April 1, 2009, the Administrative Law Judge to whom this matter was assigned issued Decision No. R09-0344-I setting a hearing and establishing procedures and procedural schedule for this docket. The hearing was set for June 2, 2009.

4. During the prehearing phase of this docket, the Parties have actively exchanged information and participated in active settlement negotiations. As a result of settlement discussions, Eastern, Trial Staff and the OCC have reached a settlement of all of the disputed issues in this Docket.

5. This Settlement Agreement memorializes the negotiated settlement and stipulations among the Parties. As a result of the settlement negotiations, all parties agree as set forth below that all issues in dispute or that could have been disputed in this Docket have been resolved to the satisfaction of the Parties and

that the terms and stipulations in this Settlement Agreement are fair, just and reasonable.

II. SETTLEMENT

1. Along with the Verified Application filed on December 3, 2008, Eastern submitted its Natural Gas Demand Side Management Plan ("DSM Plan"). As more fully set forth in the DSM Plan, the filing was intended to implement a gas DSM Plan for residential low-income customers. The plan provided significant detail concerning the program budget, annual natural gas savings, benefit/cost estimates, program design, implementation plans, and measurement and verification plans for each program to be implemented.

2. Eastern's original DSM Plan was targeted solely at its low-income customers due to Eastern's modest size and the amount of funds available for implementation of a gas DSM Plan. After discussions with Staff and OCC, Eastern modified its original DSM Plan to provide for DSM programs for a wider array of customers. Attached to this Settlement Agreement as Exhibit 1 is a copy of the revised Eastern DSM Plan. The Parties submit that this plan should be approved by the Commission as part of its consideration of this Settlement Agreement. The revised Eastern DSM Plan contains the description of the programs to be implemented, cost benefit analyses justifying the programs, and the investment in DSM to be made during the course of the DSM Plan.

3. During the course of the negotiations with Staff and the OCC, the issue of the appropriate discount rate to be used for screening DSM programs and measures and for calculating net economic benefits for determining the gas DSM

incentive bonus were addressed by the Parties. Eastern initially proposed the use of the "societal discount rate" of 4.35 percent to be used for both screening DSM programs and measures using the modified Total Resource Cost ("TRC") test for determining cost effectiveness pursuant to Rule 4754. The OCC disagreed that the "societal discount rate" was the appropriate rate. Eastern also proposed the use of the same discount rate for calculating net economic benefits for determining the gas DSM incentive bonus pursuant to Rule 4760. Staff disagreed with the use of a single discount rate for both screening DSM programs and calculating the net economic benefits. The Parties have resolved these issues by agreeing that the discount rate to be used for the first year of Eastern's gas DSM Plan for both purposes will be its after-tax weighted cost of capital of 7.51 percent. Eastern agrees to use the after-tax weighted cost of capital or whatever new discount rate may be implemented by the Commission pursuant to rulemaking, for the second year of the DSM program. The Parties submit that this discount rate is within the discount rate parameters approved by the Commission in several other proceedings relating to gas DSM plans and its use for purposes of Eastern's DSM Plan is in the public interest.

4. The Parties agree that the gas DSM programs in Eastern's gas DSM Plan will initially consist of Eastern's efficient natural gas rebate program and its residential income qualified program. The primary purpose of these DSM programs is to reduce end use natural gas consumption in a cost effective manner in order to save money for consumers. While the program goals appear modest, it is important to remember that Eastern is a small investor-owned utility serving

approximately 3,800 customers in four Colorado counties. A summary of the key portfolio metrics for the proposed program is set forth on page 4 of the accompanying DSM Plan, Exhibit 1, attached hereto. A description of the DSM programs proposed for implementation in 2009 and 2010 by Eastern is set forth in the same DSM Plan attached hereto. The Parties to this Settlement Agreement agree that the programs proposed therein constitute a reasonable set of programs for Eastern to implement in this, its first entry into the gas DSM market.

5. The Parties agree that a reasonable budget for the two-year DSM program is approximately $52,319. Attached hereto as Exhibit 2 is the DSM rate calculation prepared by Eastern showing the calculation of the DSM rate which results in a DSMCA factor of 2.77 percent.

6. In addition to requesting approval of its DSM plan, Eastern seeks commission approval of the corresponding DSMCA as part of this Settlement Agreement. Attached hereto as Exhibit 3 is a copy of proposed tariff sheets which Eastern intends to implement upon Commission approval of this Settlement Agreement. These tariff sheets set forth the description of the DSMCA and its calculation. The Parties request that the Commission approve these tariff pages as part of its consideration of this Settlement Agreement.

7. The Parties agree that, to the extent that clarification of Eastern's DSM tariff is deemed necessary in the future, in order for the language to be understandable to customers and in compliance with any changes in the Commission's gas DSM rules, they will work collaboratively to revise the tariff in a manner acceptable to Eastern and the Parties.

III. GENERAL TERMS AND CONDITIONS

1. Through active prehearing investigation and negotiation, the Parties have reached the Settlement Agreement set forth herein resolving all contested and disputed issues in this Docket in a manner which the Parties agree is just and reasonable and in the public interest. The Settlement Agreement reflects the compromise and settlement of all issues raised or that could have been raised in this docket. The Parties further agree that reaching agreement by means of negotiation and settlement rather than through litigation is in the public interest.

2. The Parties agree to present, to support and to defend this Settlement Agreement before the Commission and in the courts. The Parties further agree if the Commission sets a hearing on this Settlement Agreement to present testimony and exhibits in a hearing to obtain the Commission's approval of this Settlement Agreement.

3. This Settlement Agreement shall not become effective until the issuance of a final Commission order approving this Settlement Agreement which order does not contain any modifications of the terms and conditions of this Settlement Agreement that are unacceptable to any of the Parties. In the event the Commission modifies this Settlement Agreement in a manner unacceptable to any party, that party shall have the right to withdraw from this Settlement Agreement and proceed to hearing on the issues that may be appropriately raised by the party in this docket. The withdrawing party shall notify the Commission and the other parties to this Settlement Agreement by e-mail and facsimile within five business days of the Commission order that the party is withdrawing from

the Settlement Agreement and that the party is ready to proceed to hearing. The e-mail and facsimile notice shall designate the precise issue or issues on which the party desires to proceed to hearing (the "Hearing Notice").

4. The withdrawal of a party shall not automatically terminate this Settlement Agreement as to any other party. Within three business days of the date of the hearing notice from the first withdrawing party, all parties shall confer to arrive at a comprehensive list of issues that shall proceed to hearing and a list of issues that remains settled as a result of the first party's withdrawal from this Settlement Agreement. Within five business days of the date of the hearing notice, the party shall file with the Commission a formal notice containing the list of issues that shall proceed to hearing and those issues that remain settled. The Parties who proceed to hearing shall have and be entitled to exercise all rights with respect to the issues that are heard that they would have had in the absence of this Settlement Agreement.

5. Hearing shall be scheduled as soon as practicable on all of the issues designated in the formal Hearing Notice filed with the Commission. In the event that this Settlement Agreement is not approved, the negotiations or discussions undertaken in conjunction with this Settlement Agreement shall not be admissible into evidence in this or any other proceeding. In the event that this Settlement Agreement is approved with conditions that are unacceptable to any party who subsequently withdraws, the negotiations or discussions undertaken in conjunction with the Settlement Agreement shall not be admissible into evidence in this or any other proceeding as to that withdrawing party. However, as to

parties that do not withdraw from this Settlement Agreement, negotiations or discussions undertaken in conjunction with the Settlement Agreement shall be admissible into evidence in any proceeding to enforce the terms of this Settlement Agreement.

6. Approval by the Commission of this Settlement Agreement shall constitute a determination that the Settlement Agreement represents a just, equitable and reasonable resolution of all issues that were or could have been contested among the Parties in this proceeding.

7. All Parties specifically agree and understand that this Settlement Agreement represents a negotiated settlement in the public interest with respect to the various matters and issues presented in this docket for the sole purpose of the settlement of the matters agreed to in this Settlement Agreement. No party or person shall be deemed to have approved, accepted, agreed to, or consented to any concept, theory or principle underlying or supposed to underlie any of the matters provided for in this Settlement Agreement other than as specifically provided for herein. Notwithstanding the resolution of the issues set forth in this Settlement Agreement, none of the methods or principles herein contained shall be deemed by the Parties to constitute a settled practice or precedent in any future proceeding.

8. This Settlement Agreement may be executed in counterparts and by facsimile copies of signatures, all of which when taken together shall constitute the entire Settlement Agreement with respect to the issues addressed by this Settlement Agreement.

IV. CONCLUSION

For the reasons stated above, the Parties respectfully request that the Commission enter an order vacating all remaining prefiling dates approving this Settlement Agreement, the DSM Plan, and DSMCA incorporated therein with a finding that the Commission's approval of this Settlement Agreement represents a fair, just and reasonable resolution of all disputed issues that have arisen or which could have arisen in this docket and further closing this docket.

Respectfully submitted this 22nd day of April, 2009.

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Eastern Colorado Utility

Eastern Colorado Utility
Natural Gas Demand Side Management Plan

Prepared for:
COLORADO DEPARTMENT OF REGULATORY AGENCIES
Public Utilities Commission

Eastern Colorado Utility
PO Box 575
Strasburg, CO 80136

February 18, 2009

EXHIBIT 1

Table of Contents

1. Introduction

Eastern Colorado Utility ("ECU" or the Company) is pleased to submit this Demand Side Management (DSM) Plan pursuant to the Colorado Department of Regulatory Agencies Public Utilities Commission (Commission) Code of Colorado Regulations 723-4, Part 4 Rules Regulating Gas Utilities and Pipeline Operators (Rules). This filing contains the Eastern Colorado Utility program plan for implementation of two natural gas efficiency programs:

- Efficient Natural Gas Rebate Program
- Residential Income Qualified Program

The plan set forth herein provides in detail all of the information required by the Commission Rules, including program budget, annual natural gas savings, benefit/cost estimates, program design, implementation plans and measurement and verification (M&V) plans for each program.

Eastern Colorado Utility is well positioned to deliver customized energy efficiency programs to meet the needs of its customers. The Company has an ongoing relationship and regularly communicates with its customers. The Company also understands the unique characteristics and needs of various customer segments and demand profiles and can match these with its own system planning requirements. This institutional knowledge, combined with the engineering and technical understanding of its gas system will enable Eastern Colorado Utility to design effective and comprehensive solutions that will maximize participation and energy savings.

The rest of this section provides information on the overall program goals and objectives, service territory characteristics, energy efficiency potential, overall delivery approach, cost-effectiveness analysis and a summary of program and portfolio level participation, savings, costs and cost-effectiveness. Additional sections present details and results for individual programs.

1.1 Program Objectives

The proposed portfolio of programs is cost-effective and will contribute to Eastern Colorado Utility, Public Service Commission (Commission) and Colorado state energy efficiency goals, including Governor Ritter's New Energy Economy.[1]

Specific objectives associated with the programs are:

- To reduce end use natural gas consumption in a cost effective manner in order to save money for consumers;[2]

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1 Governor Ritter's Colorado Promise Policy book.

2 Code of Colorado Regulations (CCR) 723-4, Part 4 Rules Regulating Gas Utilities and Pipeline Operators, Rule 4750, Page 4 and House Bill 07-1037, A Bill For An Act Concerning Measures To Promote Energy Efficiency, Section 2. 40-3.2-101. Lines 21-27.

- To protect the environment by encouraging installation of efficiency measures that help reduce carbon dioxide emissions and air pollutants;
- To increase residential customer awareness of energy efficiency opportunities available, including equipment upgrades and behavioral changes;
- To improve relationships with customers, trade allies and stakeholders by providing value-added energy-efficiency services and support; and
- To support a more robust local and state-wide economy by utilizing local labor wherever possible, helping Colorado residents reduce their monthly energy expenses and promoting the adoption of high-quality equipment.

1.2 Summary Portfolio Data

Summaries of the expected participation, energy savings, costs and TRC benefit/cost ratios for Eastern Colorado Utility's programs are reported in Table 1.

Table 1: Summary of Key Portfolio Metrics

	2009	2010	Total
Participation (Number of customers)	35	56	91
Natural Gas savings (dekatherms)	271	426	697
Budget ($)[3]	$12,357	$17,526	$29,883
Dekatherms per dollar	0.0219	0.0243	0.0233
Cost Effectiveness (Modified TRC – B/C Ratio)	1.55	1.41	1.49

1.3 Service Territory Characteristics

Eastern Colorado Utility, a small, investor-owned utility, serves about 3,793 customers in four Colorado counties, including Arapahoe, Adams, Kiowa, and Cheyenne. Eastern Colorado Utility provides natural gas service primarily to residential customers in smaller rural communities with primarily small to medium-sized homes and a few larger new homes. ECU's largest customer is the King Soopers grocery store in Bennett, Colorado. Its territory also includes one hog farm.

Table 2 provides a profile of Eastern Colorado Utility's customers and sales by sector and segment. The vast majority (85%) of ECU's customer base is residential; commercial customers represent only 15% of customers but 31% of sales.

[3] Note the total DSM budget (2009-2010) represents 5.0% (or approximately 2.5%/year) of base rate revenues (exclusive of commodity costs) and 1.1% of total revenues from August 2007 – July 2008 customer sales. This exceeds the requirements, pursuant to 40-3.2-103(2)(a), C.R.S., by approximately 25%.

Table 2: Profile of Eastern Colorado Utility Customers and Sales (2007)

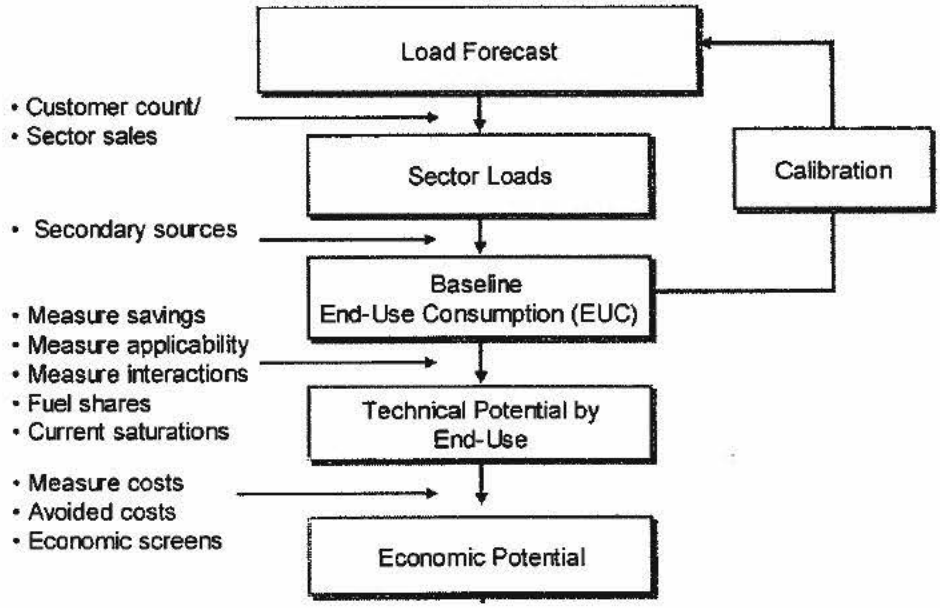
Segment	Number of Customers	Percent of Customers	Percent of Sales
Residential	**3,226**	**85%**	**69%**
Low-Income Multifamily	49	2%	
Low-Income Single family	178	6%	
Manufactured Housing	161	5%	
Multifamily	607	19%	
Single Family	2,230	69%	
Commercial	**567**	**15%**	**31%**

1.4 Energy Efficiency Potential

Eastern Colorado Utility completed a "top-down" energy efficiency potentials analysis to estimate the sectors, segments and end-uses that offer the greatest technical and economic energy efficiency potential. The overall approach in this study distinguishes between three distinct yet related definitions of resource potential widely used in utility resource planning: "technical potential," "economic potential" and "achievable potential." Technical potential assumes all demand-side resource opportunities may be captured regardless of their costs or market barriers. Economic potential is that portion of technical potential that is cost-effective to society (passes the total resource cost test).

The approach was implemented using the sequential approach depicted in Figure 1. For the purposes of this study, a five-year period from 2009 through 2013 was examined.

Figure 1. Energy Efficiency Potentials Assessment Methodology



Baseline Development

The development of an appropriate and accurate baseline is essential to robust economic analysis of energy-efficiency resources and program design. For this study, the baseline was developed using a top-down approach to separate Eastern Colorado Utility's load forecasts for each sector into their respective customers segments and end uses. The first step in characterizing the energy usage baseline was to appropriately partition Eastern Colorado Utility's customers by:

- Customer sectors: residential and commercial
- Customer segments: for both residential (single family, multifamily, manufactured, low-income) and commercial (offices, retail, lodging, etc.)
- End uses: those applicable for each market segment
- Building vintage: existing and new construction

The next step was to break out and allocate sales from Eastern Colorado Utility's econometric forecasts into customer segments and their respective end uses. The distributions by customer sector came directly from Eastern Colorado Utility's 2008 load forecast data. The end use distributions for each customer segment relied on customer billing data and a number of secondary sources, including data from the Energy Information Administration, the American Housing Survey and the 2000 census. Data were normalized by applying Heating Degree Day (HDD) data from the National Oceanic and Atmospheric Administration (NOAA) to Eastern Colorado Utility's climate zones.

Energy Efficiency Measure Characterization

The universe of all energy-efficiency measures was preliminarily screened to include only commonly available, well-understood technologies applicable to the buildings and end uses in Colorado.

Table 3 and Table 4 contain measures for residential and commercial sectors. Over 100 unique measures were considered in the development of the potentials and resource program blocks.[4]

Table 3. Residential Energy-Efficiency Measures

End Use	Measure Types
Heating	Retrofit – Ceiling, wall, below grade wall, floor and duct insulation, infiltration reduction, duct sealing, programmable thermostats Equipment – High-efficiency furnaces and boilers, proper sizing of furnaces and boilers, maintenance of furnaces and boilers
Water Heating	Retrofit – Hot water pipe insulation, faucet aerators, low-flow showerheads, ENERGY STAR dishwashers and clothes washers, water heater temperature setback, drain water heat recovery Equipment – High-efficiency water heaters (including tankless)
Cooking	Efficient stoves and ovens
Appliances	Efficient gas clothes dryers

[4] These translate into hundreds of combinations when building type and vintage are considered.

Table 4. Commercial Energy Efficiency Measures

End Use	Measure Types
Heating	Retrofit – Ceiling, wall, floor and duct insulation, duct sealing, programmable thermostats, infiltration control, windows, exhaust hood makeup air, pipe insulation, automated ventilation control Equipment – High-efficiency furnaces and boilers, infrared heating, proper sizing of furnaces and boilers, maintenance of furnaces and boilers
Water Heating	Retrofit – Hot water pipe insulation, temperature setback, commercial clothes washers, faucet aerators, showerheads, spray heads and dishwashers, drain water heat recovery Equipment – High-efficiency water heaters (including tankless)
Cooking	Equipment – Efficient ovens, ranges, fryers, steam cookers
Pool Heating	Spa/Pool covers

Data for Program Measures

After compiling the residential and commercial measure lists, the next step was to compile savings, costs and other key characteristics. These include the following data components, which are necessary to calculate the total resource benefit-cost ratio and economic potential:

- Basic measure data, including percentage savings, costs and measure life;
- Baseline end-use data (annual consumption per customer, number of customers, equipment saturation and fuel shares); and
- Measure applicability and share remaining to be completed.

Estimation of Technical and Economic Potential

The technical potential for energy-efficiency resources is calculated by applying a savings fraction to the baseline sales for a given sector, market segment and end use. These savings fractions are based on an analysis of secondary data on the energy-efficiency measures applicable to the various market segments and end uses.

Economic potential is calculated the same way as technical potential for energy efficiency programs except the cumulative effect of measures include only those that pass an economic screen. For this study, the measure costs, savings and lifetimes were used to calculate a modified TRC levelized cost for each resource. Measures with a levelized cost less than or equal to Eastern Colorado Utility's avoided energy costs were deemed cost-effective.[5]

5 Eastern Colorado Utility energy avoided costs were grouped by end use (e.g., space heating, water heating, etc.) so the screen for each measure better captured seasonal avoided cost variations.

Findings from Potentials Analysis

As shown in Figure 2, the baseline forecast for Eastern Colorado Utility shows relatively small growth in 2009 and 2010 due to the expected increase in customers offsetting the expected decline in sales per customer. After 2010, sales growth is assumed to be approximately 1% per year. The economic energy efficiency potential, which represents 18% of sales, drops the growth curve to a negative slope (i.e., decreasing overall sales) starting in 2009. The residential economic potential, shown in Figure 3, makes up nearly 57% of the economic potential.

Figure 2. Gas Load Forecasts

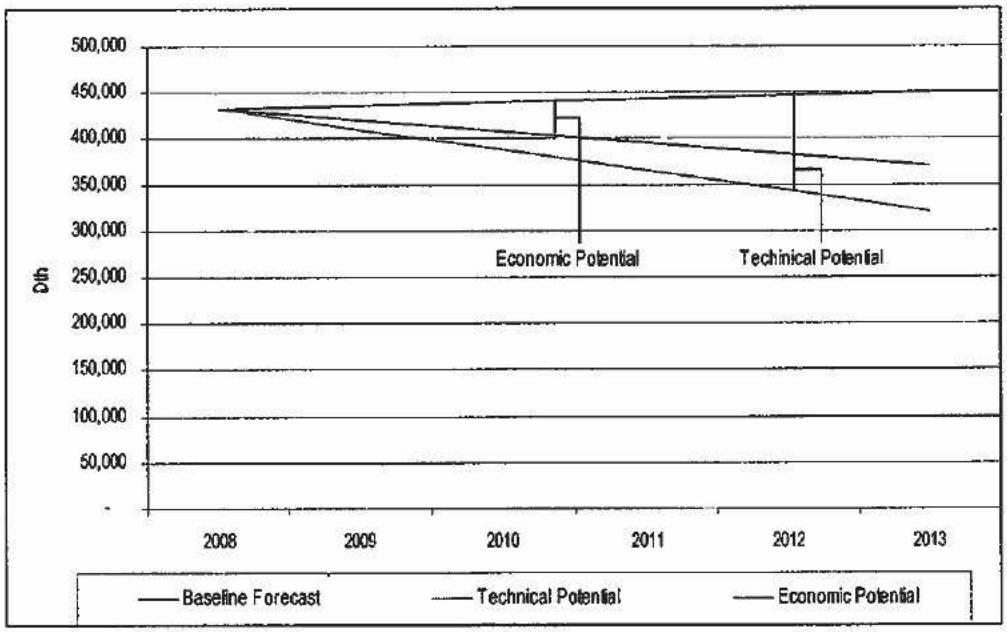
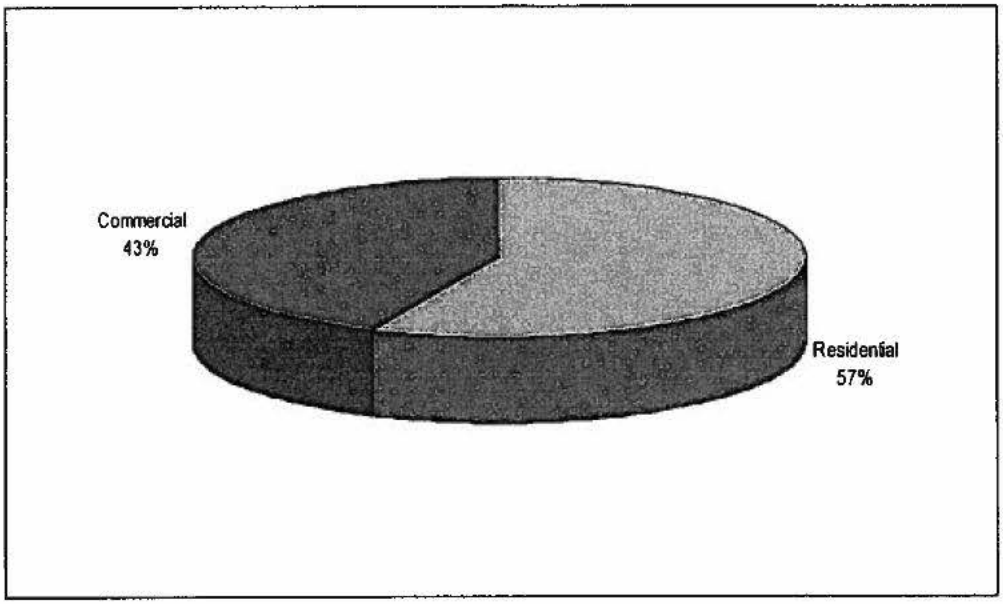
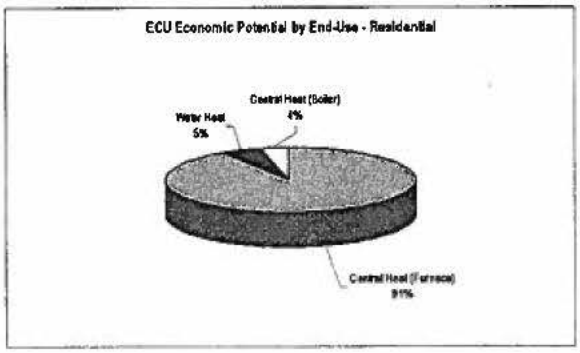


Figure 3. Economic Potential by Sector



As shown in Figure 4 the economic potential within the residential sector is dominated by single family homes (80%), with all of the potential coming from either space heating measures (furnaces and boilers (95%)) or water heating measures (5%). As shown in Figure 5, the economic potential by end use in the commercial sector is dominated by furnace space heat (44%), boiler space heat (35%) and water heat (15%).

Figure 4. Residential Economic Potential by Segment and End Use



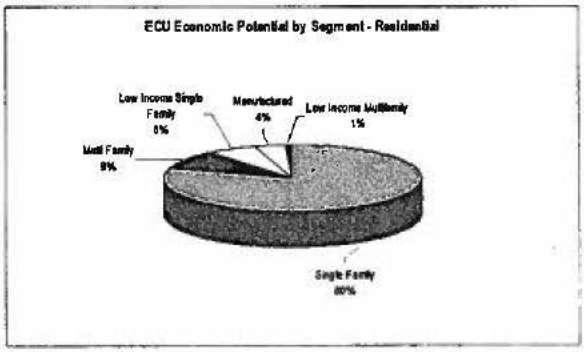
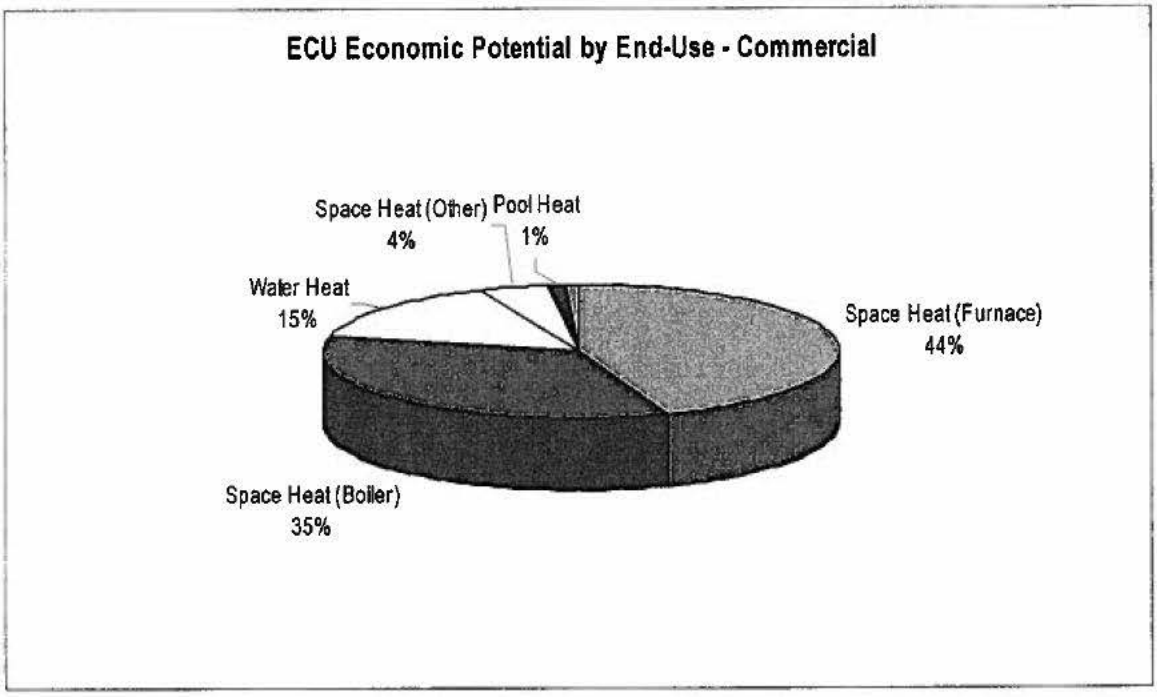
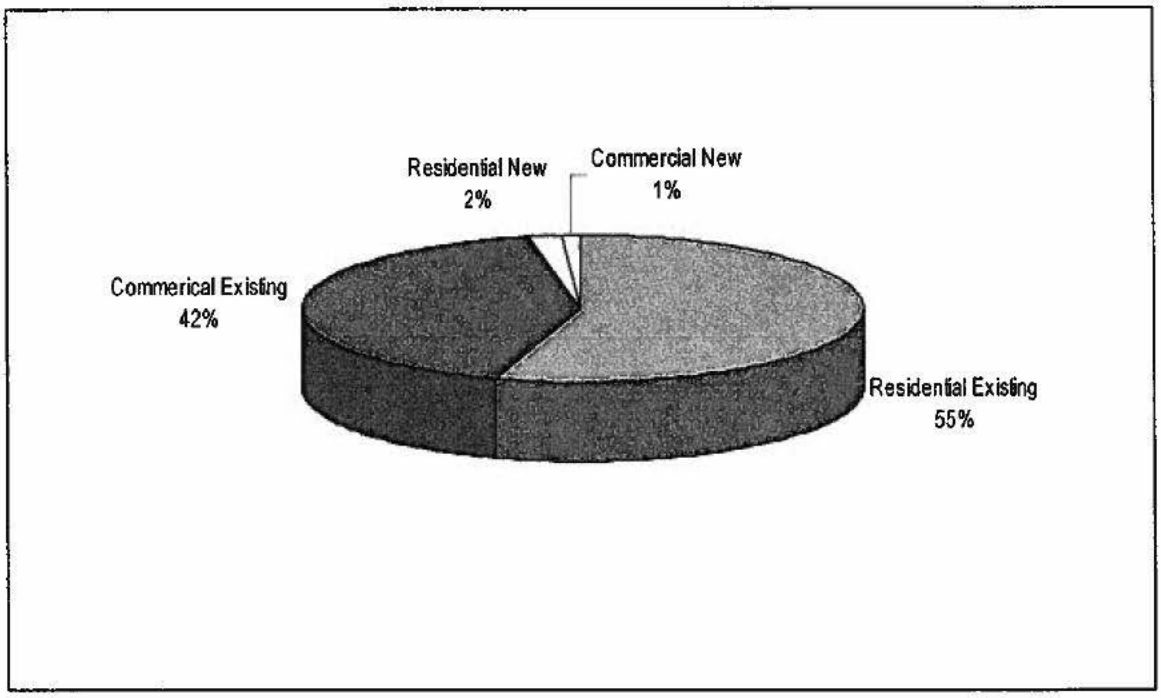


Figure 5. Commercial Economic Potential by End Use



In terms of the building vintage, the majority of economic potential is made up of existing residential (55%) buildings (Figure 6). New construction only represents 3% of the economic potential over the five-year period.

Figure 6. Economic Potential by Vintage and Sector



1.5 Delivery Approach

Eastern Colorado Utility based its selection of programs on a review of its service territory, areas of the greatest energy efficiency potential and an analysis of successful programs delivered by utilities around the country with similar usage characteristics, weather patterns and customer bases. The following table lists DSM measures that Eastern Colorado Utility proposes to include in its programs.

Table 5: Overview of Programs and Measures

Program	Measure
Efficient Natural Gas Rebate Program	High efficiency furnaces
	Programmable thermostats
Income Qualified Program	Professional energy audit
	Insulation and Infiltration
	High efficiency Furnaces and boilers
	High efficiency natural gas water heaters
	Programmable thermostats
	Water heat measures (low-flow showerheads, faucet aerators, water heat blankets, water heater pipe insulation)

Eastern Colorado Utility general delivery philosophies and activities, which are described below, will be consistent features of all of its programs.

Delivery Approach: Eastern Colorado Utility will use its own employees and third party contractors to provide administrative and delivery functions for certain programs. Where appropriate, Eastern Colorado Utility may collaborate with other natural gas utilities in Colorado on contractor procurement for program delivery and administrative functions. The Company's objective is to find the optimal balance of costs, ratepayer value, quality of service, follow up and energy savings.

Training: Eastern Colorado Utility expects superior quality from its employees and contractors and will work to provide appropriate training to support all functions of its programs. Eastern Colorado Utility will work with other gas utilities in the state to identify training needs and develop and implement training programs for their shared contractors and trade allies as needed through the programs' period of delivery.

Marketing: Eastern Colorado Utility plans to work with other natural gas utilities in Colorado to develop consistent messaging and share the cost of branding efforts and collateral material design and development.

Measurement and Verification (M&V): Eastern Colorado Utility plans to collaborate with its utility partners to select a measurement and evaluation contractor through a competitive procurement process and also to provide training for its selected vendor.

1.6 Cost Effectiveness

Assessment of cost-effectiveness begins with a valuation of the program's gross total-resource benefits, as measured by the gas avoided costs and an accounting of the program's total delivered costs. The program's cost-effectiveness is determined in terms of the expected net present value of its benefits. A program is generally considered cost-effective if its net total-resource benefits are positive. In other words:

$$\frac{\text{Total Resource Benefits}}{\text{Total Resource Costs}} \geq 1$$

where,

$$\text{Total Resource Benefits} = NPV\left(\sum_{year=1}^{measurelife}\left(\sum_{i}^{i=n}(impact_i \times avoided\ cost_i)\right)\right)$$

and,

Total Resource Cost = NPV *(Incremental Measure Costs (regardless of who pays for them)* + Utility Costs *(not including participant incentives included in incremental measure costs)*

Program Benefit Components

Benefits used in the total resource test calculation include the full value of time- and seasonally-differentiated commodity, distribution and capacity costs; participant's avoided operating and maintenance costs (where applicable); and (for the modified TRC) the valuation of non-energy avoided emissions and societal benefits.[6]

Program Cost Components

The cost component of the analysis considered incremental measure costs and direct utility costs. Incremental costs are the incremental expenses associated with installation of energy efficiency measures and on-going operation and maintenance costs, where applicable. Utility costs are the expenses associated with development, marketing, delivery and operation and M&V of each program and fall into these seven categories:

- Planning and design;
- Administrative and DSM program delivery;
- Advertising and promotion, including DSM education;
- Customer incentives;
- Equipment and installation;
- M&V; and

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[6] Per Rule 4753, the modified TRC is calculated by multiplying the initial TRC ratio by 1.05.

- Miscellaneous.

Additional Assumptions for Cost Effectiveness

Table 6 presents the assumptions used in the cost effectiveness tests, including the avoided costs, externality factor, line loss, discount rate and inflation.

Table 6. Key Assumptions Used in Cost Effectiveness Calculations

Avoided Energy Costs (2009, $/Dth)	$7.27[a]
Avoided Capacity Costs (2009, $/Dth)	$74.10[b]
Externality (Modified TRC)	1.05[c]
Lost and Unaccounted Gas (L&U)	2.4%[d]
Discount Rate (Modified TRC)	4.35%[e]
Inflation	2.38%[f]

[a] As described in Appendix A
[b] As described in Appendix A
[c] As specified by the Colorado Public Utilities Commission
[d] Weighted average for the ECU Distribution service territory
[e] Based on the value of a thirty-year treasury bill (as of April 14, 2008)
[f] Based on average U.S historic inflation (Bureau of Labor Statistics)

1.7 Eligible Customers

The total number of eligible participants for the proposed programs in 2009 is shown in Table 7. To generate a subset of eligible residential customers who could participate in the programs offered by Eastern Colorado Utility, a number of constraints and conditions were used. These data, consistent with the results from the assessment of efficiency potential, integrate Eastern Colorado Utility customer growth forecast, end-use saturations, fuel shares, and measure lives.

Table 7: Number of Eligible Customers

Program	Measure Group	Eligible Customers	Notes
Efficient Natural Gas Rebate Program	Efficient furnaces	2,028	Based on saturation of equipment and average annual turnover
	Programmable thermostats	2,319	Based on assumed saturation and potential turnover
Income Qualified Program	Single family	178	Number of low-income customers living in SF homes

1.8 Summary Portfolio Data

Summaries of the expected participation, energy savings, costs and TRC benefit/cost ratios for the combined portfolio of Eastern Colorado Utility's programs are reported in Table 8. Table 9, Table 10, Table 11, and Table 12 present a summary for each of these metrics at the program level.

Table 8: Summary of Estimated Key Portfolio Metrics

	2009	2010	Total
Participation (Number of customers)	35	56	91
Natural Gas savings (dekatherms)	271	426	697
Budget ($)[7]	$12,357	$17,526	$29,883
Dekatherms per dollar	0.0219	0.0243	0.0233
Cost Effectiveness (Modified TRC – B/C Ratio)	1.55	1.41	1.49

Table 9: Summary of Estimated Participation

	2009	2010	Total	Rank
Total Portfolio (All Programs)	35	56	91	N/A
Efficient Natural Gas Rebate Program*	30	50	80	1
Income Qualified Program	5	6	11	2

* Participation for the equipment program represents number of equipment rebates.

Table 10: Summary of Estimated Energy Savings (Dekatherms)

	2009	2010	Total	Rank
Total Portfolio (All Programs)	271	426	697	N/A
Efficient Natural Gas Rebate Program	194	333	527	1
Income Qualified Program	78	93	171	2

Table 11: Summary of Estimated Budgets (Dollars)

	2009	2010	Total	Rank
Total Portfolio (All Programs)	$12,357	$17,526	$29,883	N/A
Efficient Natural Gas Rebate Program	$6,882	$11,146	$18,028	1
Income Qualified Program	$5,475	$6,381	$11,856	2

Table 12: Summary of Estimated Cost Effectiveness (Modified TRC Ratio)

	Total	Rank
Total Portfolio (All Programs)	1.49	N/A
Efficient Natural Gas Rebate Program	1.72	1
Income Qualified Program	1.02	2

[7] Note the total DSM budget (2009-2010) represents 5.0% (or approximately 2.5%/year) of base rate revenues (exclusive of commodity costs) and 1.1% of total revenues from January 2007 – December 2007 customer sales. The 2nd year budget amount is .6581% of total revenues which exceeds the requirements, pursuant to 40-3.2-103(2)(a), C.R.S.

1.9 Measurement and Verification

The evaluation plans presented in this filing represent best practices in DSM program evaluation for programs with a similar scope and budget. The underlying principles of these plans are:

- Use industry standard approaches and protocols – such as the International Performance Measurement and Verification Protocols (IPMVP) – for transparency and reproducibility;
- Select sample sizes for statistical validity;
- Verify the measures are both installed and operating according to program expectations; and
- Provide enhanced MV&E for measures with the largest savings and performance uncertainties.

The M&V evaluations shall:

- Assess whether the DSM programs have been implemented as set forth in the approved plan;
- Measure actual energy savings and compare to projected energy savings;
- Assess the persistence (on-going in-service rate) of program installed measures;
- Summarize the actual benefit/cost ratio for each DSM program;
- Assess the extent to which education and market transformation efforts are achieving the desired results; and
- Recommend how the utilities can improve market penetration and cost-effectiveness of individual DSM programs.

Each of the following program descriptions includes a preliminary framework for detailed evaluation work-plans to be developed following approval of the proposed programs. The Company intends to implement the detailed evaluation work plans through an independent, third-party evaluation contractor. Eastern Colorado Utility plans to coordinate with SourceGas Distribution, Atmos Energy and Colorado Natural Gas to use a single evaluation contractor. This will enable the utilities to use common and consistent methods and take advantage of cost-saving opportunities associated with certain evaluation elements such as planning, design and implementation of data collection protocols.

2. Efficient Natural Gas Rebate Program

The Easter Colorado Utility's Efficient Natural Gas Rebate program will promote high efficiency natural gas heating equipment in new and existing homes and businesses. Eastern Colorado Utility employees will provide overall strategic direction and program management and administration of the program and will be supported by a program contractor to conduct measurement and verification services. Eastern Colorado Utility will market the program through traditional as well as innovative grassroots activities. Eastern Colorado Utility plans to collaborate with SourceGas Distribution, Colorado Natural Gas and Atmos Energy to benefit from economies of scale on procurement, delivery and support functions.

The sections below describe the Company's anticipated delivery approach, marketing and outreach strategies, M&V plan, and expected demand and energy savings and impacts.

2.1 Operational Structure

Program Eligibility

This program is available to all residential and commercial customers for existing buildings or new construction who purchase their heating fuel directly from Eastern Colorado Utility. To be as cost effective as possible, the program will target customers seeking to replace space heating equipment or building a new home. Any Eastern Colorado Utility heating customer (owner or tenant) may participate. Customers in rental units must have approval from the building owner to participate.

Table 13. Customer Eligibility Parameters

	Eligibility Parameters
Fuel	Gas customer
Building Type	All
Building Vintage	All
Building Ownership	All
Building Size	All
Rate Schedule	Residential, Commercial
Geography	Eastern Colorado Utility service territory

Financial Incentives

Eastern Colorado Utility will provide a financial incentive in the form of a prescriptive rebate to customers who purchase qualifying efficiency measures identified in Table 14. The measures proposed for this program include common market-ready technologies included in other successful utility energy efficiency programs. Cost estimates were developed for each measure through detailed research on the proposed measures and energy savings were determined through engineering calculations and secondary research for identical measures in geographic areas with Heating Degree

Days substantially equivalent to those in Eastern Colorado Utility's service territory. Incremental costs include additional installation costs, where applicable. While there are technical interactions that may slightly alter savings if multiple measures are installed together, our analysis treats measure savings as independent.[8]

The following table identifies Eastern Colorado Utility's proposed list of eligible natural gas equipment, efficiency qualifications and incentive levels.

Table 14. Eligible Measures

Measure	Efficiency Level	Proposed Incentive
Furnace	92%-93.9% AFUE	$200
	94%+ AFUE	$300
	92% AFUE w. ECM Motor	$250
Programmable thermostat	All	$25

Eastern Colorado Utility will periodically review its programs and may revise qualifying measures, eligibility and incentive levels or structure in the future to manage program participation or as market conditions and equipment standards change.

Program implementation and milestones

Eastern Colorado Utility employees will finalize the program design and conduct implementation activities, provide overall strategic direction, program management and some administrative functions. Eastern Colorado Utility plans to collaborate with SourceGas Distribution, Colorado Natural Gas (CNG) and Atmos Energy on some marketing activities and to select measurement and evaluation and rebate processing contractors through a competitive procurement process and also to provide training for its selected vendor with respect to necessary business and administrative procedures, roles and responsibilities, quality assurance protocols, budgets and timelines and will provide ongoing facilitation and oversight throughout the program delivery period.

Eastern Colorado Utility's planned pre-launch tasks include:

- Develop rebate protocols and application forms;
- Conduct outreach to equipment dealers, trade allies and other local market actors;
- Develop tracking and allocation procedures;
- Coordinate with other utilities regarding training, marketing, contractor procurement and key delivery strategies;
- Generate training materials and coordinate program training for internal employees; and
- Develop customer education materials.

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[8] For example, if an efficient furnace and programmable thermostat are installed at the same time, the energy savings from the thermostat will be less than when installed in a home with an inefficient furnace.

2.2 Education and training

Eastern Colorado Utility plans to coordinate with SourceGas, Atmos and CNG to co-develop and deliver educational materials and training programs wherever practical. Education and training programs will begin prior to program launch and continue over the life of the programs.

2.3 Marketing Approach

Eastern Colorado Utility is a small, well known company active in its community and enjoys a good relationship with its customers. The Company will capitalize on customer touch points including service calls, customer newsletters, on-bill messaging and speaking engagements at seminars, conferences and community events.

Several additional marketing strategies are outlined below.

- Eastern Colorado Utility is in discussions with other natural gas utilities in Colorado regarding its participation in a joint program website that includes details of each utility's programs, rebate forms and other customer information. Eastern Colorado Utility expects to direct its customers to the website through traditional marketing channels such as print media, direct mail, bill inserts and personal communications with customers.
- Eastern Colorado Utility will seek to develop good collaborative relationships that will encourage trade allies to participate in efficiency programs.
- Word-of-mouth advertising can be one of the most effective means of promoting programs. The Company will leverage its customer service department and field personnel to promote programs. Eastern Colorado Utility will train its appropriate employees to articulate program benefits and provide direction for participating.

2.4 Workflow

Eastern Colorado Utility employees will provide overall strategic direction and program management and will perform the primary administrative functions of this program. The Company will procure program contractors to provide certain support functions as needed. Key steps in program participation follow.

- ***Marketing the program.*** Customers may be directed to the program through Eastern Colorado Utility's marketing activities, the Program website, equipment dealers or by contacting one of Eastern Colorado Utility HVAC installation trade allies for a service call.
- ***Installing eligible high efficiency equipment.*** Customers will schedule efficient furnace installations directly with a heating equipment installation contractor. Programmable thermostats may be installed directly by the customer.
- ***Completing the program application.*** Customers will generally work with the furnace contractor or to fill out program applications and submit the application along with an invoice or receipt to Eastern Colorado Utility for processing. Rebate applications for programmable thermostats will not require detailed or complex information and may be

filled out by the customer. A customer service phone number will be provided on the application for customer inquiries or support.

- ***Verifying eligibility.*** Eastern Colorado Utility will review all submitted documentation to ensure that the applicant is a customer and that the installed equipment meets the minimum efficiency standard.
- ***Processing rebate checks for qualified equipment.***
- ***Verifying equipment installation for a sample of participants.***

2.5 Market Barriers and Mitigation Strategies

Table 15 presents the key market barriers to an effective Efficient Natural Gas Rebate program, as well as the strategies the program will use to address each barrier. The Company will seek to overcome these barriers on an ongoing basis throughout the program delivery period.[9]

Table 15. Market Barriers and Mitigation Strategies

Market Barriers	Mitigation Strategies
High cost of efficient equipment and declining economic conditions	Provide rebates to help offset the cost of efficient equipment;
Time required to fill out rebate form	Provide simple rebate forms through a variety of medium (mail-in, on-line); Encourage trade allies to help fill out form at the time of purchase
Trade allies not up-selling to high-efficiency equipment	Trade ally training to help customers quickly identity appropriate measures and products; In-store brochures and collateral; Market programs and general awareness to customer;
Lack of availability of qualifying equipment	Promote programs to customers so they ask for qualifying equipment and dealers stock it; Trade ally outreach
Customers don't understand the long-term value of high-efficiency equipment	Train trade allies to explain life-cycle costs to customers; Market program and general efficiency awareness to customers
Dealers unaware of program	Provide outreach and marketing to dealers

2.6 Value proposition

Eastern Colorado Utility's proposed program offers the following main benefits.

- The process is simple and straightforward so participants receive rebates for qualifying equipment with minimal hassle.
- Participating customers save money in the short term through rebates and in the long term through lower-utility bills.

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9 Note these strategies can not permanently eliminate the identified barriers.

- Customers receive reliable advice about high quality, energy-efficient equipment from a trustworthy source.
- The program supports the local economy by generating demand for higher-cost, higher quality equipment, creating business opportunities for equipment dealers, installers and other energy efficiency end-use sectors and by decreasing consumer's monthly living expenses.

2.7 Participation

The participation projections are shown in Table 16.

Table 16. Projected Participation

	2009	2010	Total
Furnace	18	32	50
Programmable thermostat	12	18	30
Total measures	30	50	80

2.8 Energy Savings

Table 17 provides energy savings goals.

Table 17. Projected Energy Savings (Dekatherms)

	2009	2010	Total
Annual energy savings	194	333	527

2.9 Total Projected Program Costs

Table 18 provides the projected program costs.

Table 18. Projected Program Costs (Dollars)

	2009	2010	Total
Planning and design	$522	$616	$1,139
Administration and delivery	$928	$1,128	$2,056
Advertising and promotion	$790	$1,225	$2,015
Customer incentives	$4,400	$7,750	$12,150
Equipment and installation	$0	$0	$0
Measurement and verification	$242	$426	$668
Miscellaneous	$0	$0	$0
Total costs	$6,882	$11,146	$18,028

2.10 Projected Cost Effectiveness

Table 19 provides program projected cost-effectiveness results.

Table 19. Projected Cost-Effectiveness Results

Test	Benefit-Cost Ratio
Total resource cost (TRC)	1.64
Utility	1.80
Participant	9.04
Ratepayer impact measure	0.37
Modified TRC	1.72

2.11 Measurement and Verification Plan

Program Description

The Efficient Natural Gas Rebate program promotes energy efficiency for residential and commercial gas customers. The program provides participants with rebates to offset the higher purchase cost of efficient products and equipment, information highlighting the benefits of energy efficient equipment and general efficiency education.

Program Theory

The Efficient Natural Gas Rebate program is designed to address the particular needs of two market segments. The structure of this program is intended to achieve immediate savings through rebates and long-term savings through lower utility bills.

General Evaluation Approach

The primary goal of the evaluation is to document the energy savings attributable to the program and to ensure reliability and persistence of the expected impacts. Surveys of program participants will be administered.

Surveys will include free-rider and participant spillover questions. Surveys and interviews will include a focus on opportunities and barriers to participation and adoption of efficiency measures, and will assess the program processes that are effective, the processes that are not working and how the process can be improved.

Impact Evaluation Methodology

The impact evaluation will focus primarily on validation of measures installed, estimating actual energy and demand savings and determining persistence of measure impacts. The impact assessment will have two major components, outlined below.

- Sample-based verification of measures installations. The verification element of the evaluation will serve several objectives, including:
  - Quantifying and verifying the type, specification and frequency of measures installed and operating;
  - Determining the reasons for any discrepancies in measure counts; and
  - Identifying any operational or performance issues for further study by program administrators.
- Individual measure savings and realization rates will be estimated through engineering calculations based on the verification studies or through secondary research adjusted for differences in Eastern Colorado Utility customer characteristics and HDDs.

Net-to-Gross Methodology

Net-to gross will be estimated through a survey-based approach for participants that will include free-ridership and spillover modules implemented as part of the full-participant survey. Program free-rider and spillover rates will be estimated and applied to participant savings.[10]

Data Collection

The evaluation contractor will work with program administrators to develop a comprehensive data tracking system to support program evaluation. Most of this effort will occur during the pre-implementation evaluation assessment phase, which will also include a review of the program participation forms, quality assurance procedures and database arrangement.

The major threat to validity will be baseline assumptions or existing conditions. The evaluation contractor will work with the program administrators and implementer to ensure that the appropriate data are collected.

[10] Savings weighted free-ridership and spillover by measure may not be estimated due to the number of measures and the range of savings.

3. Low-Income Program

The Eastern Colorado Utility low-income program will promote energy efficiency for existing income-qualified residential customers in single family[11] and mobile homes.[12] The program provides energy education, on-site energy audits, direct installation of low-cost natural gas water heating measures, weatherization and may include more extensive efficiency upgrades if needed.

Eastern Colorado Utility's staff will provide overall strategic direction and program management. The program will be supported by a contractor, which will provide turnkey administration of the program.

The sections below describe Eastern Colorado Utility's anticipated delivery approach, marketing and outreach strategies, cost effectiveness test results, M&V plan and expected energy savings impacts.

3.1 Operational Structure

The Governors Energy Office (GEO) will provide turn-key administration and delivery of the program. The GEO has been managing state-wide delivery of the Federal Low-Income Home Energy Assistance Program (LIHEAP) for several years and has weatherization contractors, delivery protocols and tracking mechanisms in place. The GEO delivers this program through eight regional low-income weatherization agencies covering the state of Colorado. These agencies qualify participants, conduct marketing, procure labor and materials, manage auditors and equipment installation subcontractors and track results. They report regularly to the GEO which will regularly report to Eastern Colorado Utility.

The GEO will combine resources for natural gas efficiency measures from Eastern Colorado Utility with resources for electric efficiency measures from the corresponding electric utility in the service territory[13] and outside funding sources as needed to comprise a complete low-income weatherization package for income-qualified customers. Outside resources may be provided through LIHEAP and/or the state of Colorado.

Program Eligibility

The total number of eligible participants for the proposed programs in 2009 are shown in Table 20. To generate a subset of eligible customers who could participate in the program, a number of constraints and conditions were used. These data, consistent with the results from the assessment of efficiency potential, integrate ECU's customer growth forecast, end-use saturations, fuel shares and measure lives.

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11 Single family is defined as homes with up to 4 individual dwelling units.

12 In order to be eligible mobile homes must be on a permanent foundation.

13 In cases where the corresponding electric utility does not offer a Low-Income DSM program, the program administrator will leverage needed resources from outside funding sources.

Table 20. Number of Eligible Customers (2009)

Program	Measure Group	Eligible Customers	Notes
Low-Income Program	Single family	181	Number of low-income customers living in Single family homes

This program is available to income-qualified[14] residential customers in single-family homes who purchase their heating fuel directly from Eastern Colorado Utility. Customers in rental housing must have approval from the building owner to participate.

Table 21. Customer Eligibility Parameters

	Eligibility
Rate schedule/fuel	Residential gas customer
Building Type	Residential homes up to 4 units; Mobile homes
Building Vintage	All
Building Ownership	All
Building Size	All
Customer status	Income-qualified residential homeowner; income-qualified residential tenant
Geography	Eastern Colorado Utility service territory

Energy Efficiency Measures and Financial Incentives

Eastern Colorado Utility based its selection of program measures on a review of its service territory, areas of the greatest energy efficiency potential and a review of low income programs delivered by utilities around the country with similar usage characteristics, weather patterns and customer bases.

Complete audit services, weatherization and equipment upgrades will be provided to income-qualified residential customers at no cost through the program. The following table provides an initial list of DSM measures that Eastern Colorado Utility proposes to include in its program.

[14] Income qualified customers meet standards set by LIHEAP i.e., annual income is below 80% of the area median income level.

Table 22. Overview of Energy Efficiency Measures

Low Income Program Measures
Professional energy audit
Insulation and Infiltration
High efficiency furnaces and boilers
High efficiency natural gas water heaters
Programmable thermostats
Water heat measures (low-flow showerheads, faucet aerators, water heat blankets, water heater pipe insulation)

Eastern Colorado Utility will provide funding to support the installation of these natural gas efficiency measures as needed in participants' homes based on the results of the energy audit. Anticipated average funding for each home is provided in Table 23, below. As noted, the GEO will combine Eastern Colorado Utility efficiency incentives with funding from other sources to deliver the overall program.

Table 23. Program Component Incentives

Program Component	Assumed Average Incentive
Single family	$804

Eastern Colorado Utility will review this program annually and may revise qualifying measures and incentive levels or structure in the future to manage program participation or as market conditions and equipment standards change.

Program implementation and milestones

Eastern Colorado Utility will use The GEO as a third party administrator to provide centralized turnkey program delivery services. The GEO has conducted low-income weatherization programs in Colorado for several years.

The GEO has established sub-contract agreements with regional partners around the state who manage the single family weatherization program at the local level and employ qualified energy auditors and weatherization technicians to provide services. The regional agencies track participation and measure installation and report regularly to GEO.

Eastern Colorado Utility' planned pre-launch tasks include:

- Coordinate with other utilities and work with the GEO to establish business processes, administrative procedures, roles and responsibilities, quality assurance protocols, budgets and timelines.
- Issue RFP (jointly with other Colorado natural gas utilities) to qualify and select an M&V contractor.

3.2 Education and training

The GEO includes energy efficiency education materials and one-on-one education to participants during the energy audit and educational materials are left with each participant. Eastern Colorado Utility will review the GEO educational materials and make recommendations for changes and/or improvements based on their service territory, customer base and organizational needs.

The GEO and the local delivery agencies ensure that energy audit and weatherization contractors are trained on installation best practices and program protocols.

3.3 Marketing Approach

Marketing for the Low-Income program is conducted by the GEO, working with local delivery contractors and human services organizations. Eastern Colorado Utility will refer customers who call for energy assistance to the regional partnership agencies for participation in the program as appropriate.

3.4 Workflow

Eastern Colorado Utility' staff will provide overall strategic direction and program management for the program.

Key steps in the low income program include:

- ***Qualifying the customer.*** All participating customers must be eligible for LIHEAP funding. Single family applications will be processed by the applicable local weatherization agency and reported to the GEO.
- ***Identifying a local weatherization agency for the customer.*** The GEO will identify an appropriate local weatherization agency based on the customer's location. The local weatherization agency schedules the audit and weatherization work to be completed.
- ***Completing an on site energy audit and weatherization.*** Weatherization agency staff conducts an energy audit of the customer's home and directly installs simple energy efficiency measures. The auditor will evaluate major energy-using equipment (*e.g.*, gas space conditioning and hot water heating equipment) and building envelope characteristics to identify areas for cost effective efficiency upgrades. The auditor will perform the necessary weatherization (e.g., insulation and air sealing) applicable for the home. In addition, he/she will discuss energy efficient practices and disseminate educational materials. The weatherization agency provides a copy of the audit report to the homeowner, local agency and GEO, which reports regularly to Eastern Colorado Utility for tracking and reporting purposes.
- ***Installing equipment upgrades.*** Local weatherization agencies schedule installation of larger equipment upgrades by a qualified space heating or water heating contractor during a second visit.

- ***Verifying a representative sample of measure installations.*** This will provide a high level of confidence for calculating energy reductions. On-site inspection will be performed according to the monitoring and verification plan outlined below.

3.5 Market Barriers and Mitigation Strategies

Table 24 presents the key market barriers to an effective low-income program, as well as the strategies the program will use to address each barrier.[15]

Table 24. Market Barriers and Mitigation Strategies

Market Barriers	Mitigation Strategies
Higher initial cost of energy-efficient equipment	Provide free on-site energy audits, direct installation, weatherization measures and needed efficient equipment upgrades for immediate savings; Educate customers on the long-term energy cost-saving benefits of higher efficiency equipment
Lack of customer awareness	Provide customer marketing and outreach; Provide efficiency and energy usage education;
Customers reluctant to ask for help	Work through local community agencies, which may have existing relationships with customers; Provide discrete program qualification and implementation process

3.6 Value proposition

Eastern Colorado Utility's proposed program offers the following main benefits:

- Customers receive free direct installation and home weatherization services which permanently lower their monthly expenses.
- The program supports those most in need of financial assistance.
- The program supports the local economy by creating jobs with regional weatherization agencies and supporting new business for equipment dealers and other energy efficiency end-use service sectors.
- The program will help reduce end-use natural gas consumption in a cost-effective manner.

3.7 Participation

The participation projections are shown in Table 25.

Table 25. Projected Participation

	2009	2010	Total
Low income single family homes	5	6	11

[15] Note these strategies can not permanently eliminate the identified barriers.

3.8 Energy Savings

Table 26 provides energy savings goals.

Table 26. Estimated Energy Savings (Dekatherms)

	2009	2010	Total
Low-Income Single-Family	78	93	171

3.9 Total Projected Program Costs

Table 27 provides the projected program costs.

Table 27. Projected Program Costs (Dollars)

Program Component	Residential Single family		
	2009	2010	Total
Planning and design	$478	$384	$861
Administration and delivery	$352	$422	$774
Advertising and promotion	$402	$483	$885
Customer incentives	$4,022	$4,826	$8,849
Equipment and installation	$0	$0	$0
Measurement and verification	$221	$265	$487
Miscellaneous	$0	$0	$0
Total costs	$5,475	$6,381	$11,856

3.10 Projected Cost Effectiveness

Table 28 provides program cost-effectiveness results.

Table 28. Cost-Effectiveness Results

Test	Residential Single family
Total resource cost (TRC)	0.97
Utility	0.81
Participant	N/A
Ratepayer impact measure	0.30
Modified TRC	1.02

3.11 Measurement and Verification Plan

Program Description

The ECU low-income program will promote energy efficiency for existing income-qualified residential customers through energy education, on-site energy audits, direct installation of low-cost natural gas water heating measures, weatherization and more extensive efficiency upgrades, if needed.

Program Theory

The low income program is designed to address the needs of the low-income customer segment. The structure of this program is intended to achieve immediate savings through direct installation measures and provide the necessary information and education to advance continued energy efficiency in this segment.

The M&V evaluations shall:

- Assess whether the DSM program has been implemented as set forth in the approved plan;
- Measure actual energy savings and compare to projected energy savings;
- Assess the persistence (on-going in-service rate) of program installed measures;
- Summarize the actual benefit/cost ratio for each DSM program;
- Recommend how the ECU can improve market penetration and cost-effectiveness of the program.

General Evaluation Approach

This evaluation plan represents best practices in DSM program evaluation. The underlying principles of the plan are:

- Using industry standard approaches and protocols – such as the International Performance Measurement and Verification Protocols (IPMVP) – for transparency and reproducibility;
- Selecting sample sizes for statistical validity;
- Verifying the measures are both installed and operating according to program expectations;

The primary goal of the evaluation is to document the energy and capacity savings attributable to the program and to ensure reliability and persistence of the expected impacts. The vast majority of the savings are assumed to be instantaneous as a result of direct installation and weatherization measures.

The Company intends to implement the evaluation work plan through an independent, third-party evaluation contractor. Eastern Colorado Utility plans to work with other Colorado Natural Gas utilities, Colorado Natural Gas, Atmos Energy and SourceGas, to select a single evaluation contractor to conduct measurement and verification activities for all three utilities' low income programs. This will enable the utilities to use common and consistent methods and take advantage

of cost-saving opportunities associated with certain evaluation elements such as planning, design and implementation of data collection protocols.

Eastern Colorado Utility will rely on information provided by the GEO combined with findings from the other Colorado utilities to estimate savings by measure. The results will be calibrated using engineering algorithms to adjust for other factors that may either increase or decrease savings, including the number of household members, square footage of and age of the home.[16]

Evaluation Methodology

Participant-level data will be collected by GEO. The data will include:

- Detailed customer information: name, address, account number, contact information, etc.
- Demographic/household information: age of home, number of household members, square footage, etc.
- Measure characteristics: type of measure installed, efficiency level, date installed, etc.

These data will be used to provide initial estimates of savings using deemed values. The savings will then be calibrated, as discussed above, through engineering adjustments.

Net-to-Gross Methodology

Due to the income eligibility requirement of the low-income program, it is assumed that in absence of the program none of the measures would have been installed. The net-to-gross for the Low-Income program, therefore, is assumed to be 100%.

Data Collection

The evaluation contractor will work with program staff to develop a comprehensive data tracking system to support program evaluation. Most of this effort will occur during the pre-implementation evaluation assessment phase, which will also include a review of the program participation forms, quality assurance procedures and database arrangement.

The major threat to validity will be baseline assumptions or existing conditions. The evaluation contractor will work with the program staff and implementer to ensure that the appropriate data are collected.

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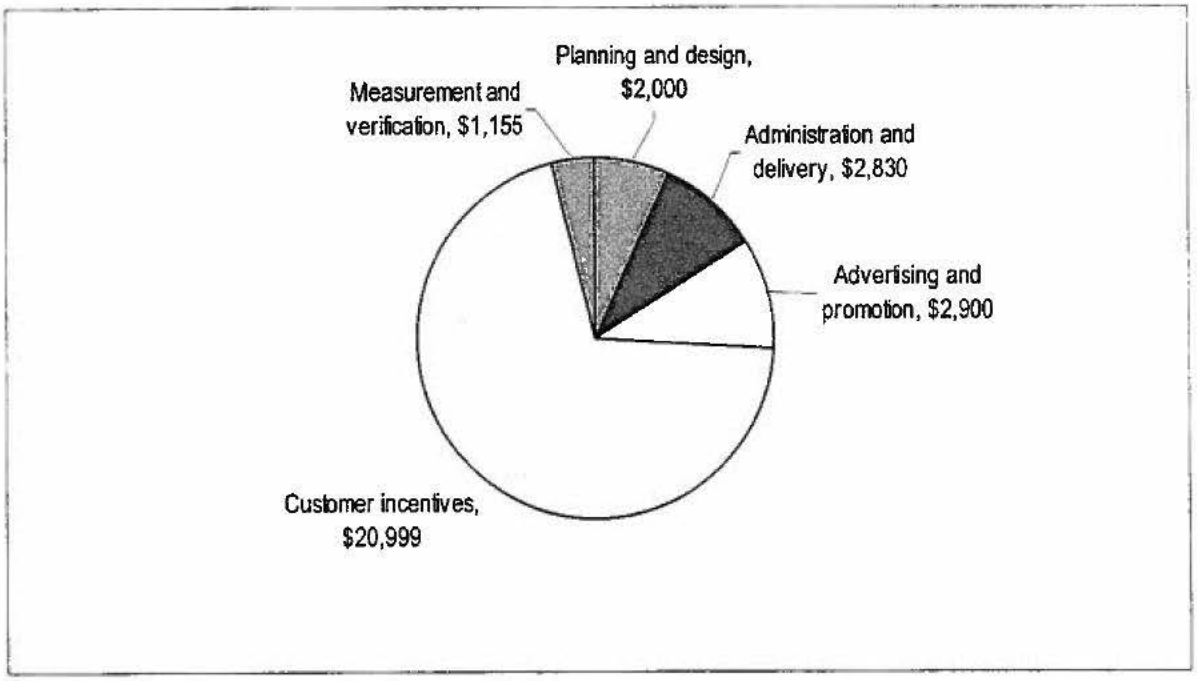
[16] Critical demographic and household characteristics will be collected as part of the implementation and evaluations of the programs.

4. Conclusion

By submitting this 2009-2010 Eastern Colorado Utility Demand Side Management (DSM) Plan, Eastern Colorado Utility is committing to reduce end-use natural gas consumption, save money for its consumers, and protect the environment by encouraging the reduction of emissions and air pollutants. This program will contribute to Eastern Colorado Utility, Public Utilities Commission (Commission) and Colorado state energy efficiency goals.

This DSM Plan, fulfilling the Colorado Public Utilities Commission Rules, includes the program design and implementation plan, expenditures and budget, annual natural gas and unit energy savings, benefit/cost estimate using a modified TRC test and an M&V plan for the required residential low-income program. As required by the Commission Rules, Eastern Colorado Utility's program budget represents over 2% of its base rate revenues. Figure 7 shows the budget distribution by program during the 2009-2010 program cycle.

Figure 7. Portfolio Level Budget (2009-2010)



Eastern Colorado Utility believes that its program meets the goals pursuant to the Public Utilities Commission of the State of Colorado (Commission) Code of Colorado Regulations 723-4, Part 4 Rules Regulating Gas Utilities and Pipeline Operators. The Company is committed to meeting the program participation and savings goals associated with its DSM plan and looks forward to providing these important services to its customers and contributing to Colorado's energy and environmental goals.

Eastern Co Utility Co
Strasburg, CO 80136

DSM Exhibit No 1
DSM Rate Calculation

Calculation of DSM Rate

	residential	commercial	large commercial	total
residential ccount/year	38,836	6,582	401	
facility charge	7.50	8.50	25.00	
	$291,270	$ 55,947	$ 10,025	$357,242
sales mcf	291,425	71,366	62,165	424,956
dist charge	1.385	1.385	1.385	1.385
	$403,624	$ 98,842	$ 86,099	$588,564
total (denomimator)	$694,894	$ 154,789	$ 96,124	$945,806
dsm cost (numerator)				$ 26,160
g-dsmca factor				2.77%

DSM Cost to be Recovered 2009 & 2010

total projected dsm cost - per plan	$ 29,883
cost to develop dsm plan	$ 14,495
attny fees	$ 6,441
consultant	$ 1,500
Total Cost 2 year period	$ 52,319
Cost Recovered per year	$ 26,160

EXHIBIT 2

EASTERN COLORADO UTILITY COMPANY
Name of Utility

Colo. PUC No.
Sheet No. 1
Second Revised
Cancels First Revised
Sheet No. 1

INDEX

EXPLANATION OF SYMBOLS USED

R – Reduction
I – Increase
C – Changed regulation
T – Change in text but no change in rate or regulation
S – Reissued matter
N – New rate or regulation
D – Discontinued rate or regulation

Advice Letter No. _____ _____ Issue Date _____
Decision or Signature of Issuing Officer
Authority No. _____ _____ Effective Date _____
Title

EXHIBIT 3

EASTERN COLORADO UTILITY COMPANY
Name of Utility

Colo. PUC No.
Sheet No. 2
Twenty-seventh revised
Cancels Twenty-sixth revised
Sheet No. 2

RESIDENTIAL AND COMMERCIAL GENERAL GAS SERVICE

AVAILABILITY

Natural Gas Service under this schedule is available to any separately metered customer for residential or commercial purposes in and around the Towns of Deer Trail, Byers, Strasburg, Bennett, Watkins, Kit Carson, and Sheridan Lake. T

Service under this schedule is not available for resale or standby service.

RATE

Monthly Facility Charge – Residential Customers	7.50
Monthly Facility Charge – Commercial Customers	8.50
Distribution Delivery Charge, * per 1000 Ccf	1.3850

GAS DEMAND-SIDE MANAGEMENT COST ADJUSTMENT N

This rate schedule is subject to Gas Demand Side Adjustments stated in the Rate Component Summary. N N

PAYMENT

Gas service may be discontinued if an account is not paid when due. A charge of $40.00 will be made for reconnection if gas service is discontinued, or if collection of a past due bill is made on the customer's premises. In the event gas service is discontinued, it will not be resumed until the customer's account is paid in full to date.

BAD CHECK CHARGE

Customer's checks which are returned by the bank for insufficient funds will be charged an Additional $10.00 fee.

*Excludes gas costs which have been carved out in the GCA.

Advice Letter No. _____ _____ Issue Date _____
Decision or Signature of Issuing Officer
Authority No. _____ _____ Effective Date _____
Title

EASTERN COLORADO UTILITY COMPANY
Name of Utility

Colo. PUC No.
Forty-second Sheet No. 2.1
Cancels Forty-first Sheet No. 2.1

LARGE COMMERCIAL GAS SERVICE

AVAILABILITY

Natural Gas Service under this schedule is available to any separately metered customer for commercial purposes with large meters such as 1.5m American Rotary in and around the Towns of Deer Trail, Byers, Strasburg, Bennett, Watkins, Kit Carson, and Sheridan Lake.

Service under this schedule is not available for resale or standby service.

RATE

Monthly Facility Charge – Large Commercial Customers	25.00	
Distribution Delivery Charge, * per 1000 Ccf.....	1.3850	

GAS DEMAND-SIDE MANAGEMENT COST ADJUSTMENT

This rate schedule is subject to Gas Demand Side Adjustments stated in the Rate Component Summary. N N N

PAYMENT

Gas service may be discontinued if an account is not paid when due. A charge of $40.00 will be made for reconnection if gas service is discontinued, or if collection of a past due bill is made on the customer's premises. In the event gas service is discontinued, it will not be resumed until the customer's account is paid in full to date.

BAD CHECK CHARGE

Customer's checks which are returned by the bank for insufficient funds will be charged an Additional $10.00 fee.

*Excludes gas costs which have been carved out in the GCA.

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EASTERN COLORADO UTILITY COMPANY
Name of Utility

Colo. PUC No. Seventeenth Revised Sheet No. 3.4
Cancels Sixteenth Revised Sheet No. 3.4

GAS RATE COMPONENT SUMMARY

Monthly Facility Charge		
Residential Customers	7.50	
Commercial Customers	8.50	
Large Commercial Customers	25.00	
Commodity Charge		
Commodity Gas Costs per CCF	0.6364	
Upstream Delivery Service Costs per CCF	0.0503	
Distribution Delivery Charge (Local Distribution Company Costs) per CCF	0.1385	
Total Commodity Rate	.8252	
Gas Demand-Side Management Cost Adjustment		
Residential Customers	2.77%	N
Commercial Customers	2.77%	N
Large Commercial Customers	2.77%	N

Components of GCA
(Commodity Gas Costs and Upstream Service Costs)

Rate Schedule	Sheet Number	Current Gas Costs Per CCF	Deferred Gas Costs Per CCF	Total Gas Cost Adjust Per CCF
SG-1 & SG-2	2 & 2.1	$0.6478	($0.0114)	$0.6364

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EASTERN COLORADO UTILITY COMPANY
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Colo. PUC No. _____ Original
Sheet No. 3.5
Cancels _____
Sheet No. _____

Natural Gas Rates
Gas Demand-Side Management Cost Adjustment (G-DSMCA)

Gas Demand-Side Management Cost Adjustment (G-DSMCA)

All sales rate schedules for natural gas service are subject to a Gas Demand-Side Management Cost Adjustment (G-DSMCA) designed to prospectively recover prudently incurred costs of Demand-Side Management Programs (DSM Programs) in accordance with Gas Demand-Side Management Rules 4750 through 4760 of the Commission's Rules Regulating Gas Utilities and Pipeline Operators, 4 Code of Colorado Regulations 723-4 (Gas DSM Rules). The G-DSMCA Factor shall be separately calculated and applied to the Company's base rate schedules for residential and commercial customers. The Company shall Recover the annual expenditure projected for that year over a one-year period with the G-DSMCA Factor.

DSM Plan Filing

The initial DSM plan filing shall cover a DSM period of two years. The subsequent DSM plan filings shall cover a DSM period of three years unless otherwise specified by the Commission. Subsequent DSM plan applications are to be filed by May 1 of the final year of the current DSM plan. Periodic DSM Plan Filings may be pursuant to the Gas DSM Rules by the Company to propose, inter alia, expenditure targets for DSM programs.

Annual G-DSMCA Filings

Upon Commission approval, the Company will place into effect the new G-DSMCA tariff pursuant to the Commission's final order on its initial DSM plan and application.

Beginning April 1, 2010, and each April 1st thereafter, the Company shall submit its annual DSM report, application for bonus and DSMCA filing. The Company will include in its annual G-DSMCA filing all pertinent information and supporting documentation as is required by the Commission's Rules and as specifically set forth in the Gas DSM Rules 4757 and 4758.

The Company shall file a request to adjust its G-DSMCA Factor either through an application or an advice letter and tariffs. Prudently incurred costs of the DSM program expenditure target approved by the Commission in order to provide for funding of the utility's DSM programs, as well as recovery of deferred G-DSMCA costs, plus any G-DSM bonus approved by the Commission, shall be recovered through the G-DSMCA Factor that is set on an annual basis, and collected from July 1 through June 30.

If the projected DSM program costs have changed from those used to calculate the currently effective G-DSMCA cost or if the Company's deferred G-DSMCA cost balance increases or decreases sufficiently, the Company may file an application to revise its currently effective G-DSMCA factor to reflect such changes, provided that the resulting change to the G-DSMCA factor equates to a base rate of at least one ($.01) per Mcf or Dth. The Company has the burden of proof to justify any interim G-DSMCA filings and the Commission has the discretion to consolidate the interim G-DSMCA filing with the next regularly scheduled annual G-DSMCA filing.

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EASTERN COLORADO UTILITY COMPANY
Name of Utility

Colo. PUC No. ____
Original Sheet No. 3.6
Cancels Sheet No. ____

Natural Gas Rates
Gas Demand-Side Management Cost Adjustment (G-DSMCA)

Definitions

Deferred G-DSMCA Cost. Deferred G-DSMCA Cost means a rate component of the G-DSMCA Factor which is designed to amortize over the G-DSMCA Period, plus interest, the under- or over-recovered G-DSMCA Factor reflected in the Company's Account No. 186 for all applicable rate schedules of residential and commercial customers.

DSM Period. DSM Period means the effective period of an approved DSM plan.

DSM Bonus. The amount of bonus approved by the Commission in the Company's annual DSM Bonus application, as set forth in gas DSM Rule 4760.

Current DSM Cost. Prudently incurred costs of DSM programs within the DSM program expenditure target approved by the Commission in order to provide for funding of the utility's DSM program.

DSM Program. DSM Program or energy efficiency program means any combination of DSM measures, information and services offered to customers to reduce natural gas usage set forth in the Company's DSM Plan Filing as approved by the Commission.

G-DSMCA Factor. The G-DSMCA Factor for each service class shall be a percentage adjustment Applicable to all base rates for customers receiving service under the rate schedule for the service class. The following formula shall be used:

$$\text{G-DSMCA Factor} = \frac{\text{(current DSM Cost + DSM Bonus + Deferred G-DSMCA Cost)}}{\text{(CCount * FC + Sales * D)}}$$

where:

- CCount is the forecasted number of customers under a rate schedule in the DSM period
- FC is the Facility Charge effective on the April 1 filing date
- Sales is the forecasted sales gas quantity for the rate schedule in the DSM period
- D is the Distribution charge effective on the April 1 filing date
- The G-DSMCA Factor will also include the current G-DSM bonus plus any adjustment necessary to previously approved G-DSMCA bonuses
- Deferred G-DSMCA Cost includes sub-accounts of deferred amounts for DSM bonus and current DSM Cost for the rate schedule.

G-DSMCA Period. The G-DSMCA shall take effect July 1 of each year for a period of 12 months.

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EASTERN COLORADO UTILITY COMPANY
Name of Utility

Colo. PUC No. _____
Original
Sheet No. 3.7
Cancels _____
Sheet No. _____

Natural Gas Rates
Gas Demand-Side Management Cost Adjustment (G-DSMCA)

Interest on under- or over-recovery. The amount of net interest accrued on the average monthly balance in sub-accounts of Account No. 186 (whether positive or negative), is determined by multiplying the monthly balance by an interest rate equal to the Commission-authorized after-tax weighted average cost of capital.

Prudence review and adjustment of G-DSM bonus. If the Commission finds that the actual performance varies from the performance values used to calculate the DSM bonus, then an adjustment shall be made to the amount of DSM bonus award. Any true-up in DSM bonus will be implemented on a prospective basis.

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