First Regular Session Seventy-third General Assembly STATE OF COLORADO

INTRODUCED

LLS NO. 21-0352.01 Duane Gall x4335

HOUSE BILL 21-1238

HOUSE SPONSORSHIP

Bernett, Kennedy

SENATE SPONSORSHIP

Hansen,

House Committees

101

102

Energy & Environment

Senate Committees

A BILL FOR AN ACT

CONCERNING THE MODERNIZATION OF GAS ENERGY EFFICIENCY PROGRAMS.

Bill Summary

(Note: This summary applies to this bill as introduced and does not reflect any amendments that may be subsequently adopted. If this bill passes third reading in the house of introduction, a bill summary that applies to the reengrossed version of this bill will be available at http://leg.colorado.gov.)

The bill updates the methods used to determine the cost-effectiveness of demand-side management (DSM) programs of public utilities selling natural gas at retail, including requiring that the calculation of future benefits reflects the avoided costs to ratepayers resulting from reduced consumption of natural gas. The bill specifies that the calculation must be based on reliable estimates and published

scientific data and must include methane emissions. In addition, the bill adds savings targets and budget control mechanisms to the approval process for gas DSM programs, paralleling the existing process that applies to electric DSM programs.

1 Be it enacted by the General Assembly of the State of Colorado: 2 **SECTION 1. Legislative declaration.** (1) The general assembly 3 finds and determines that: 4 (a) Demand-side management (DSM) programs promote energy 5 efficiency, saving utility ratepayers money and reducing energy 6 consumption over a long period for a relatively small initial investment; 7 (b) Colorado law gives public utilities incentives to invest in DSM 8 programs but conditions those incentives on a requirement that the DSM 9 programs, taken as a whole, be cost-effective; 10 Changes to the metrics used to determine the (c) 11 cost-effectiveness of DSM programs will more realistically account for 12 their value, benefitting ratepayers economically while simultaneously 13 reducing the greenhouse gas emissions of Colorado's gas utilities; and 14 (d) As a result of legislation passed in 2019, the Colorado air 15 quality control commission is undertaking statewide assessments of 16 greenhouse gas emissions, including emissions of not only carbon dioxide 17 but also methane, which is often released in the process of natural gas 18 production and distribution, and other greenhouse gases in the calculation 19 of environmental costs. Leading climate scientists state that mitigation of 20 short-lived pollutants such as methane can play a significant role in 21 slowing the rate of climate change while producing many co-benefits for 22 human health and food security.

(2) Therefore, the general assembly declares that it is in the public

23

-2- HB21-1238

1	interest to:
2	(a) Update the methods used to determine the cost-effectiveness
3	of gas DSM programs;
4	(b) Incorporate into the cost-effectiveness determinations the most
5	recent and accurate assessments of the social costs of greenhouse gas
6	emissions, including carbon dioxide and methane emissions, while
7	recognizing that future assessments likely will provide still more
8	favorable estimates of the long-term value of current investments in gas
9	DSM programs;
10	(c) Ensure that a significant portion of gas DSM program
11	expenditures be targeted to improve energy efficiency in income-qualified
12	households;
13	(d) Direct the public utilities commission to incorporate into its
14	evaluations of DSM program the costs of greenhouse gas emissions,
15	including the social cost of carbon dioxide and methane leaked or emitted
16	into the atmosphere; and
17	(e) Direct the public utilities commission to set savings targets for
18	gas utility DSM plans based upon the maximum cost-effective and
19	achievable level of savings.
20	SECTION 2. In Colorado Revised Statutes, 40-1-102, amend (5)
21	and (6); and add (1.1) as follows:
22	40-1-102. Definitions. As used in articles 1 to 7 of this title 40,
23	unless the context otherwise requires:
24	(1.1) "BEHIND-THE-METER THERMAL RENEWABLE SOURCE" MEANS
25	A TECHNOLOGY THROUGH WHICH A UTILITY CUSTOMER ACCESSES A
26	RENEWABLE HEATING OR COOLING SOURCE TO SERVE THE CUSTOMER'S
27	ELECTRIC OR HEATING NEEDS FOR ONE OR MORE END USES, INCLUDING

-3- HB21-1238

1	WATER HEATING, SPACE HEATING OR COOLING, OR INDUSTRIAL PROCESSES,
2	IF THE USE OF THAT TECHNOLOGY:
3	(a) REDUCES SYSTEM COSTS FOR THE UTILITY'S CUSTOMERS;
4	(b) REDUCES NET GREENHOUSE GAS EMISSIONS; OR
5	(c) Provides for a more efficient utilization of grid
6	RESOURCES.
7	(5) (a) "Cost-effective", with reference to a natural gas or electric
8	demand-side management program or related measure, means having a
9	benefit-cost ratio greater than one.
10	(b) In calculating the benefit-cost ratio, the benefits shall MUST
11	include, but are not limited to IN A BASE CASE, the following, as
12	applicable:
13	(I) The utility's avoided generation, transmission, distribution,
14	capacity, and energy costs;
15	(II) The valuation of avoided GREENHOUSE GAS emissions,
16	CALCULATED AS THE SOCIAL COST OF CARBON DIOXIDE IN ACCORDANCE
17	WITH SECTIONS 40-3.2-106 AND 40-3.2-107 AND THE SOCIAL COST OF
18	METHANE IN ACCORDANCE WITH SECTION 40-3.2-107, AS SEPARATE ITEMS
19	IN THE COST-BENEFIT CALCULATION; and
20	(III) Nonenergy OTHER COSTS OR benefits as determined by the
21	commission.
22	(c) In calculating the benefit-cost ratio, the costs shall MUST
23	include but are not limited to, utility and participant expenditures for the
24	following, as applicable:
25	(I) Program design, administration, evaluation, advertising, and
26	promotion;
27	(II) Customer education;

-4- HB21-1238

1	(III) Incentives and discounts;
2	(IV) Capital costs; and
3	(V) Operation and maintenance expenses.
4	(d) IN ADDITION TO THE BASE CASE ANALYSIS OF
5	COST-EFFECTIVENESS DESCRIBED IN SUBSECTION (5)(b) OF THIS SECTION,
6	A UTILITY MAY PROVIDE A CASE THAT DOES NOT INCLUDE THE SOCIAL
7	COSTS OF METHANE AND CARBON DIOXIDE.
8	(6) "Demand-side management programs" or "DSM programs"
9	means ANY OF THE FOLLOWING PROGRAMS OR COMBINATION OF
10	PROGRAMS:
11	(a) Energy efficiency, INCLUDING WEATHERIZATION AND
12	INSULATION;
13	(b) Conservation;
14	(c) Load management;
15	(d) BENEFICIAL ELECTRIFICATION, AS DEFINED IN SECTION
16	40-3.2-106 (6)(a); and
17	(e) Demand response programs. or any combination of these
18	programs.
19	SECTION 3. In Colorado Revised Statutes, 40-2-123, amend
20	(1)(b) as follows:
21	40-2-123. New energy technologies - consideration by
22	commission - incentives - definitions - legislative declaration.
23	(1) (b) (I) The commission may give consideration to the likelihood of
24	new environmental regulation and the risk of higher future costs
25	associated with the emission of greenhouse gases such as carbon dioxide
26	AND METHANE when it considers utility proposals to acquire resources
27	Where utilities eliminate or reduce carbon dioxide emissions through the

-5- HB21-1238

1 use of capture and sequestration, the commission may consider the 2 benefits of using carbon dioxide for enhanced oil recovery or other uses 3 OR TO IMPLEMENT DSM PROGRAMS. THE COMMISSION SHALL 4 COLLABORATE WITH THE AIR QUALITY CONTROL COMMISSION TO ENSURE 5 THAT ANY EMISSIONS REDUCTIONS ACHIEVED THROUGH GAS DSM 6 PROGRAMS ARE APPROPRIATELY ACCOUNTED FOR IN MEETING THE STATE'S 7 GREENHOUSE GAS REDUCTION GOALS. 8 (II) FOR PURPOSES OF EVALUATING A GAS DSM PROGRAM OR 9 MEASURE THAT INCORPORATES INNOVATIVE TECHNOLOGIES WITH THE 10 POTENTIAL FOR SIGNIFICANT IMPACT, SUCH AS ENERGY-SAVING 11 TECHNOLOGIES THAT GO BEYOND WHAT IS ACHIEVABLE USING ENERGY 12 EFFICIENCY MEASURES ALONE, THE COMMISSION MAY FIND THE PROGRAM 13 OR MEASURE COST-EFFECTIVE, NOTWITHSTANDING SECTION 40-1-102 14 (5)(a), EVEN IF ITS INITIAL BENEFIT-COST RATIO IS NOT GREATER THAN ONE 15 WHEN CALCULATED USING CURRENTLY AVAILABLE DATA AND 16 ASSUMPTIONS. 17 **SECTION 4.** In Colorado Revised Statutes, 40-3.2-103, amend 18 (1), (2) introductory portion, (2)(a), (2)(b), and (3); and **add** (2.5) and 19 (3.5) as follows: 20 40-3.2-103. Gas distribution utility demand-side management 21 programs - recovery of costs. (1) On or before September 30, 2007, the 22 commission shall commence a rule-making proceeding, as described in 23 subsection (2) of this section COMMENCING IN 2022 AND NO LESS 24 FREQUENTLY THAN EVERY FOUR YEARS THEREAFTER, EACH 25 INVESTOR-OWNED GAS DISTRIBUTION UTILITY, ALSO REFERRED TO IN THIS 26 SECTION AS A "GAS UTILITY", SHALL FILE AN APPLICATION TO OPEN A DSM 27 STRATEGIC ISSUES PROCEEDING to develop expenditure and ENERGY

-6- HB21-1238

SAVINGS TARGETS TO BE ACHIEVED BY THE GAS UTILITY, TAKING INTO ACCOUNT ITS POTENTIAL FOR COST-EFFECTIVE DEMAND-SIDE MANAGEMENT AS WELL AS COLORADO'S GREENHOUSE GAS REDUCTION GOALS. THE COMMISSION SHALL, AS PART OF APPROVING A GAS UTILITY'S GAS DSM STRATEGIC ISSUES APPLICATION, ALSO DEVELOP AN ESTIMATED DSM BUDGET COMMENSURATE WITH natural gas savings targets, funding and cost-recovery mechanisms, and a financial bonus structure for demand-side management DSM programs implemented by an investor-owned gas distribution utility, also referred to in this section as a "gas utility" A GAS UTILITY.

(2) As part of the rule-making proceeding DEVELOPMENT OF TARGETS, MECHANISMS, AND A BONUS STRUCTURE required by subsection (1) of this section, the commission shall:

- (a) Adopt AN ESTIMATED BUDGET FOR DSM program expenditure targets equal to at least one-half of one percent of a natural gas utility's revenues from its full service customers in the year prior to setting such targets EXPENDITURES COMMENSURATE WITH THE ENERGY SAVINGS TARGETS ESTABLISHED BY THE COMMISSION;
- (b) Establish DSM program energy savings targets that are commensurate with program expenditures and expressed in terms of an amount of gas saved per unit of program expenditures consistent with achieving the greenhouse gas reduction targets in section 25-7-102 (2)(g), take into consideration new clean energy technologies as contemplated by section 40-2-123, and reflect the maximum cost-effective and achievable natural gas savings potential for the gas utility consistent with the needs of its full-service customers;

-7- HB21-1238

(2.5) FOR GAS UTILITIES WITH FEWER THAN TWO HUNDRED FIFTY THOUSAND FULL-SERVICE CUSTOMERS, THE COMMISSION MAY ESTABLISH ENERGY SAVINGS TARGETS, A BUDGET FOR GAS DSM PROGRAM EXPENDITURES, FUNDING AND COST-RECOVERY MECHANISMS, AND A FINANCIAL BONUS STRUCTURE IN THE SAME PROCEEDING IN WHICH THE UTILITY'S GAS DSM PROGRAM PLAN IS SUBMITTED FOR APPROVAL.

- (3) Within twelve months After the completion of the rule-making required by DEVELOPMENT OF THE TARGETS, MECHANISMS, AND BONUS STRUCTURE AS DESCRIBED IN subsection (1) of this section, each gas utility shall:
- (a) (I) Develop and begin implementing a set of cost-effective GAS DSM programs for its full service customers. Such programs shall be of the gas utility's choosing, taking into account the characteristics of the gas utility and its customers. One or more programs may PROGRAM PLANS DESIGNED TO MEET OR EXCEED THE ENERGY SAVINGS TARGETS ESTABLISHED BY THE COMMISSION.
- (II) GAS DSM PROGRAM PLANS MAY BE COMBINED WITH ELECTRIC DSM PROGRAM PLANS, BENEFICIAL ELECTRIFICATION PLANS, OR OTHER PLANS THAT REDUCE ENERGY CONSUMPTION OR GREENHOUSE GAS EMISSIONS. EXCEPT AS OTHERWISE PROVIDED IN SUBSECTIONS (3)(a)(III) AND (3)(a)(IV) OF THIS SECTION, ONE OR MORE OF THE GAS DSM PROGRAMS OR MEASURES, REPRESENTING AN AGGREGATE TOTAL OF AT LEAST TWENTY-FIVE PERCENT OF OVERALL RESIDENTIAL GAS DSM PROGRAM EXPENDITURES, INCLUDING EXPENDITURES SERVING INCOME-QUALIFIED HOUSEHOLDS, MUST be targeted to low-income RESIDENTIAL customers and, if so, may be provided directly by the gas utility or indirectly through financial support of conservation programs

-8- HB21-1238

1	for	low-income	households	administered	by	the	state	IN
2	INCO	OME-QUALIFIED	HOUSEHOLDS.					

(III) IN THE CASE OF A GAS UTILITY WITH FEWER THAN FIFTY THOUSAND FULL-SERVICE CUSTOMERS, AND EXCEPT AS OTHERWISE PROVIDED IN SUBSECTION (3)(a)(IV) OF THIS SECTION, ONE OR MORE OF THE GAS DSM PROGRAMS OR MEASURES, REPRESENTING AN AGGREGATE TOTAL OF AT LEAST FIFTEEN PERCENT OF OVERALL RESIDENTIAL GAS DSM PROGRAM EXPENDITURES, INCLUDING EXPENDITURES SERVING INCOME-QUALIFIED HOUSEHOLDS, MUST BE TARGETED TO RESIDENTIAL CUSTOMERS IN INCOME-QUALIFIED HOUSEHOLDS.

- (IV) ON OR AFTER JANUARY 1, 2026, THE COMMISSION MAY COMMENCE PROCEEDINGS TO ADJUST THE PERCENTAGE SPECIFIED IN SUBSECTION (3)(a)(II) OR (3)(a)(III) OF THIS SECTION IN LIGHT OF CHANGED CIRCUMSTANCES, SO LONG AS THE RESULTING PERCENTAGES REPRESENT A SIGNIFICANT PORTION OF GAS DSM PROGRAM EXPENDITURES AND CONTINUE TO MAKE PROGRESS TOWARD ACHIEVEMENT OF COLORADO'S ENERGY EFFICIENCY AND GREENHOUSE GAS EMISSION REDUCTION GOALS.
- (b) In implementing APPROVED DSM programs, use reasonable efforts to maximize energy savings consistent with the annual energy efficiency budget.
- (3.5) TO MEET THE ENERGY SAVINGS TARGETS ESTABLISHED BY THE COMMISSION IN ACCORDANCE WITH THIS SECTION, GAS UTILITIES SHALL CONSIDER INCLUDING INCENTIVES FOR CUSTOMERS TO UTILIZE BEHIND-THE-METER THERMAL RENEWABLE SOURCES. THE COMMISSION SHALL NOT PROHIBIT GAS UTILITIES FROM OFFERING PROGRAMS OR INCENTIVES THAT ENCOURAGE CUSTOMERS TO REPLACE GAS-FUELED

-9- HB21-1238

1	APPLIANCES WITH EFFICIENT ELECTRIC APPLIANCES.
2	SECTION 5. In Colorado Revised Statutes, 40-3.2-106, amend
3	(1) introductory portion, (1)(c), (4), and (5); and add (1)(c.5) as follows:
4	40-3.2-106. Costs of pollution in utility planning - definitions
5	- rules. (1) The commission shall require an electric OR GAS public utility
6	subject to commission jurisdiction to consider the cost of carbon dioxide
7	emissions, as set forth pursuant to IN subsection (4) of this section, when
8	determining the cost, benefit, or net present value of any plan or proposal
9	submitted in one of the following proceedings:
10	(c) Applications related to, section 40-3.2-104; or THE
11	COMMISSION'S EVALUATION OF, PROGRAMS ADOPTED UNDER SECTION
12	40-3.2-103;
13	(c.5) APPLICATIONS RELATED TO, OR THE COMMISSION'S
14	EVALUATION OF, PROGRAMS ADOPTED UNDER SECTION 40-3.2-104; OR
15	(4) The commission shall base the cost of carbon dioxide
16	emissions on the most recent assessment of the social cost of carbon
17	dioxide developed by the federal government. Starting in 2020, the
18	commission shall use a social cost of carbon dioxide of not less than
19	forty-six dollars per short ton. The commission shall modify the cost of
20	carbon dioxide emissions based on escalation rates of the 2020 base cost
21	by an amount that is equal to or greater than the central value escalation
22	rates established in the technical support document. When calculating the
23	cost of carbon dioxide emissions for any proceeding listed in subsection
24	(1) of this section, the commission shall use the same A discount rate as
25	that used to develop the federal FOR THE social cost of carbon dioxide as
26	set forth in That does not exceed the lesser of two and one-half
27	PERCENT OR ANY LOWER VALUE ESTABLISHED BY THE MOST RECENT

-10- HB21-1238

- 1 AVAILABLE SUCCESSOR TO the technical support document.
- 2 Notwithstanding the discount rate used to develop the social cost of
- 3 carbon dioxide value over the planning period, the commission shall
- 4 continue to discount any net present value analysis of any optimized
- 5 resource portfolio in the electric resource planning process using discount
- 6 rates that the commission deems appropriate.

16

17

18

19

20

21

22

23

24

25

26

27

- 7 (5) IN THE BASE CASE ANALYSIS OF COST EFFECTIVENESS AS
 8 DESCRIBED IN SECTION 40-1-102 (5)(b), the commission shall apply a THE
 9 SOCIAL cost of carbon dioxide AND THE SOCIAL COST OF METHANE
 10 emissions to the nonenergy benefits BENEFIT-COST CALCULATION for
 11 programs that are defined to be ENERGY EFFICIENCY OR beneficial
 12 electrification PROGRAMS OR THAT INCORPORATE BEHIND-THE-METER
 13 THERMAL RENEWABLE SOURCES.
- SECTION 6. In Colorado Revised Statutes, add 40-3.2-107 as follows:
 - 40-3.2-107. Costs of methane pollution in gas DSM program planning rules definitions. (1) The commission shall require a gas public utility subject to commission jurisdiction to consider the social cost of methane emissions, as set forth in subsection (2) of this section, when determining the cost, benefit, or net present value of revenue requirements of any plan or proposal submitted in an application related to, or the commission's evaluation of, programs adopted under section 40-3.2-103.
 - (2) (a) THE COMMISSION SHALL BASE THE SOCIAL COST OF METHANE EMISSIONS ON THE MOST RECENT ASSESSMENT OF THE GLOBAL SOCIAL COST OF METHANE DEVELOPED BY THE FEDERAL GOVERNMENT, AS UPDATED TO REFLECT THE LATEST AVAILABLE FIGURES DERIVED FROM

-11- HB21-1238

1 PEER-REVIEWED, PUBLISHED STUDIES; EXCEPT THAT, BEGINNING ON THE 2 EFFECTIVE DATE OF THIS SECTION, THE COMMISSION SHALL USE A SOCIAL 3 COST OF METHANE OF NOT LESS THAN ONE THOUSAND NINETY DOLLARS 4 PER SHORT TON. THE COMMISSION SHALL MODIFY THE SOCIAL COST OF 5 METHANE EMISSIONS BASED ON ESCALATION RATES OF THE 2020 BASE 6 COST BY AN AMOUNT THAT IS EQUAL TO OR GREATER THAN THE CENTRAL 7 VALUE ESCALATION RATES ESTABLISHED IN THE ADDENDUM TO THE 8 TECHNICAL SUPPORT DOCUMENT AND SHALL USE A DISCOUNT RATE THAT 9 DOES NOT EXCEED THE LESSER OF TWO AND ONE-HALF PERCENT OR ANY 10 LOWER VALUE ESTABLISHED BY THE MOST RECENT AVAILABLE SUCCESSOR 11 TO THE TECHNICAL SUPPORT DOCUMENT. 12 (b) WHEN CALCULATING THE COST OF METHANE EMISSIONS FOR 13 ANY PURPOSE LISTED IN SUBSECTION (1) OF THIS SECTION, THE 14 COMMISSION SHALL OBTAIN AND APPLY THE BEST AVAILABLE VALUES FOR 15 NATURAL GAS LEAKAGE DURING THE EXTRACTION, PROCESSING, 16 TRANSPORTATION, AND DELIVERY OF NATURAL GAS BY THE GAS PUBLIC 17 UTILITY AS WELL AS LEAKAGE FROM PIPING OR OTHER EQUIPMENT ON 18 CUSTOMER PREMISES. THE COMMISSION SHALL TAKE INTO ACCOUNT ANY 19 RELEVANT DATA AND EMISSIONS ACCOUNTING METHODOLOGIES 20 DEVELOPED BY THE AIR QUALITY CONTROL COMMISSION PURSUANT TO 21 SECTION 25-7-140 REGARDING METHANE LEAKAGE RATES AND THE 22 APPROPRIATE GLOBAL WARMING POTENTIAL OF METHANE. THE

(c) Notwithstanding the discount rate used for the cost of methane emissions, the commission shall discount other

COMMISSION SHALL USE THE SAME DISCOUNT RATE AS THAT USED TO

DEVELOP THE FEDERAL SOCIAL COST OF METHANE, AS SET FORTH IN THE

ADDENDUM TO THE TECHNICAL SUPPORT DOCUMENT.

23

24

25

26

27

-12- HB21-1238

1	FUTURE COST STREAMS INTO THE NET PRESENT VALUE ANALYSIS OF ANY
2	RESOURCE PORTFOLIO IN THE GAS DSM PROGRAM PLANNING PROCESS
3	USING A DISCOUNT RATE THAT THE COMMISSION DEEMS RELEVANT TO THE
4	PARTIES RESPONSIBLE FOR FINANCING OR PAYING THESE FUTURE COSTS.
5	WHEN RATEPAYERS ARE COVERING COSTS WITHOUT INVESTMENT FROM
6	GAS PUBLIC UTILITIES, SUCH AS ENVIRONMENTAL COSTS OR
7	PASS-THROUGH FUEL COSTS, THE COMMISSION SHALL GIVE
8	CONSIDERATION TO DISCOUNTING THOSE COSTS WITH A STABLE
9	LONG-TERM INFLATION RATE THAT, IN THE COMMISSION'S JUDGMENT,
10	ACCURATELY REPRESENTS THE NET PRESENT VALUE OF FUTURE CASH
11	FLOWS EXPERIENCED BY RATEPAYERS.
12	(3) As used in this section:
13	(a) "ADDENDUM TO THE TECHNICAL SUPPORT DOCUMENT" MEANS
14	THE 2016ADDENDUM OF THE FEDERAL INTERAGENCY WORKING GROUP ON
15	SOCIAL COST OF GREENHOUSE GASES, ENTITLED "ADDENDUM TO
16	TECHNICAL SUPPORT DOCUMENT ON SOCIAL COST OF CARBON FOR
17	REGULATORY IMPACT ANALYSIS UNDER EXECUTIVE ORDER 12866:
18	APPLICATION OF THE METHODOLOGY TO ESTIMATE THE SOCIAL COST OF
19	METHANE AND THE SOCIAL COST OF NITROUS OXIDE".
20	(b) "TECHNICAL SUPPORT DOCUMENT" MEANS THE 2016
21	TECHNICAL SUPPORT DOCUMENT OF THE FEDERAL INTERAGENCY WORKING
22	GROUP ON SOCIAL COST OF GREENHOUSE GASES, ENTITLED "TECHNICAL
23	UPDATE OF THE SOCIAL COST OF CARBON FOR REGULATORY IMPACT
24	Analysis under Executive Order 12866".
25	SECTION 7. Applicability. This act applies to plans,
26	applications, or other documents reviewed by the public utilities
27	commission on or after the effective date of this act.

-13- HB21-1238

- 1 **SECTION 8. Safety clause.** The general assembly hereby finds,
- determines, and declares that this act is necessary for the immediate
- 3 preservation of the public peace, health, or safety.