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BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF THE APPLICATION OF INTERMOUNTAIN GAS COMPANY FOR THE AUTHORITY TO CHANGE ITS RATES AND CHARGES FOR NAUTRAL GAS SERVICE TO NATURAL GAS CUSTOMERS IN THE STATE OF IDAHO	)))))))	CASE NO. INT-G-16-02

DIRECT TESTIMONY

DIEGO RIVAS

DECEMBER 16, 2016

Q. Please state your name, affiliation, and reason for this testimony.

A. My name is F. Diego Rivas, and I am a Senior Policy Associate with the NW Energy Coalition and based in Helena, MT. The reason for my testimony is to encourage implementation of smart rate structure and program design to maximize the use of energy efficiency as a resource.

Q. Please list the topics you will cover as a witness.

A. My testimony covers the proposed Demand Side Management programs (pages 1 – 9), the Fixed Cost Collection Mechanism (pages 10 – 13), and rate design issues for the Residential and General Service classes (pages 13 – 18).

DEMAND SIDE MANAGMENT

Q. Intermountain Gas proposes a suite of Demand Side Management programs. Do you have any general comments on this proposal?

A. Yes – an effective Demand Side Management (DSM) program is a critical element of any utility's supply portfolio. The northwest region has prided itself on making energy efficiency the primary resource and nearly all regulated utilities in the region use DSM programs as a means of keeping costs low.

As such, it is encouraging to see Intermountain Gas Company's (IGC) interest in offering a DSM program. However, the program as presented in the testimonies of Allison Specter and Cheryl Imlach – and supported by the testimony of Dan Kirschner – falls more in the category of a fuel-switching incentive program than a true DSM program. IGC does not hide from the fact that the intent of the program is to encourage fuel-switching, stating, "Conservation incentives associated with high-efficiency natural gas space and water heating equipment would provide the Company with the two-fold benefit of acquiring essential DSM resources while allowing natural

gas to serve the role it performs best, as a direct space and water heating fuel." (Spector, page 4, ln 2 - 6).

While there may be some savings to be had in encouraging fuel switchers to purchase more efficient appliances, the Company is ignoring large segments of their customer base and should be looking more broadly in the development of their DSM program.

Q. Should natural gas utilities be actively promoting fuel-switching?

A. The merits of fuel-switching continue to be debated. The Northwest Power and Conservation Council (Council) re-studied the topic of direct use of natural gas in the development of the 7th Northwest Power Plan[1]. They concluded that there may be some economic benefit for households to convert from electricity to natural gas and that "natural gas will continue to gain space and water heating market share while electricity's market share of these end uses will continue to decrease.[2]" The Council, however, while recognizing the potential economic benefits, does not include fuel-switching in their definition of conservation.

IGC's assertion that the direct use of natural gas is inherently more efficient than electricity generation from natural gas depends on the precise generation mix of the electric utility. Looked at in isolation, direct use of natural gas for heating in a modern furnace is more efficient than generating electricity in a modern combined cycle gas turbine and using electric resistance for heating. But this theoretical look at a single fuel and single heating equipment type is incomplete. Heat pump type heaters can have higher resource efficiency than gas furnaces. Utilities with large hydroelectric resources generate electricity without relying on outside fuel

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[1] Seventh Northwest Conservation and Electric Power Plan, *Appendix N: Direct Use of Natural Gas,* Northwest Power and Conservation Council. http://www.nwcouncil.org/media/7149904/7thplanfinal_appdixn_duofnatgas.pdf

[2]Seventh Northwest Conservation and Electric Power Plan, *Appendix N: Direct Use of Natural Gas,* Northwest Power and Conservation Council. Page 12.

sources, which is largely the case in IGC's service territory. For example, in 2015 natural gas made up only 14.3% of Idaho Power's supply portfolio, while hydroelectric power made up 41.5% and renewable energy sources adding roughly another 10%[3]. Also within IGC's service territory are rural electric coops and municipal utilities that are customers of Bonneville Power Administration (BPA), whose portfolio is 85% hydroelectric generation.

While IGC claims, and we agree, that natural gas is more efficient as an end use product, they provide no cost-justification for fuel-switching from hydro based utilities. Company witness Kirshcner on page 5 of his testimony states, "natural gas generation can be expected to replace some portion of regional coal retirements because it is dispatchable, economic and a cleaner generation resource." However, the Northwest Power and Conservation Council's 7th Northwest Plan states, "Only low to modest amounts of new natural gas-fired generation is likely to be needed to supplement energy efficiency, demand response, and renewable resources…[4]" Furthermore, should natural gas be used to provide more electricity in northwest markets, the price of natural gas would undoubtedly increase, leaving the economics of fuel-switching further up for debate.

Instead of justifying natural gas conservation programs on the basis of savings in the electricity system, gas DSM programs must be justified by avoiding the costs of gas service. Because of this ICL and NWEC strongly support gas DSM programs that encourage customers to use gas efficiently rather than merely encouraging fuel switching. Fuel switching may result in greater efficiency in specific applications under certain conditions, but conserving fuel is what benefits customers.

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[3] Idaho Power Company, *Resource Portfolio Fuel Mix – 2015* *https://www.idahopower.com/AboutUs/EnergySources/FuelMix/resourcePortfolio_2015.cfm*

[4] Seventh Northwest Conservation and Electric Power Plan, Page 1-6

Q. Should natural gas utilities be able to claim energy savings from fuel-switching activities?

A. Yes, if energy savings are also being achieved through other utility sponsored DSM programs. Due to the economics of natural gas versus electricity, the Northwest Power and Conservation Council expects natural gas water and space heating appliances to naturally increase market share. As more households choose natural gas applications in their home, it will become increasingly important for natural gas utilities to offer incentives for customers to not only install efficient equipment, but use gas efficiently in homes and businesses through improving building envelops and enacting conservation behaviors.

As market share of natural gas end uses increase throughout the region, so too will aggregate gas demand. Under familiar concepts of supply and demand, we can expect the cost of natural gas supply to increase. Furthermore, rising gas demand will eventually trigger the need for infrastructure investments putting upward pressure on rates for customers. To the extent fuel switching causes rising gas demand and therefore rising gas costs, incentives to use gas more efficiently in homes and businesses help offset the increase in initial cost to the customer, and can provide downward pressure on rates for all utility customers.

A DSM program based solely on providing incentives for fuel-switching customers could have the opposite effect. While some "savings" are achieved if a customer installs a more efficient appliance model as compared to the assumed baseline of the least cost models, overall natural gas obligation for the utility would actually increase. Again, this could end up having upward pressure on rates.

The real savings from fuel-switching programs fall on the electricity side. Dual-fuel utilities are more likely to offer fuel-switching incentives, relieving pressure on their electric system. However, as electric applications become increasingly efficient, the price of natural gas

increases, and the electric grid becomes increasingly reliant on clean, renewable energy, we expect fuel-switching programs to be less popular.

Q. IGC uses the Utility Cost Test to compare the costs and benefits of proposed DSM measures (Spector at p.9 ln 2 – 3). Do you support this methodology?

A. In regards to Intermountain Gas operations in Idaho, I do support using the Utility Cost Test to ensure cost effective DSM programs. The Idaho Commission, like most other state commissions, utilities, and industry experts, look at a variety of cost-benefit tests for DSM programs. While the Total Resource Cost (TRC) is typically the primary test, the Utility Cost Test (UCT) is also commonly used, and the Idaho Commission recently approved "utilization of the UCT as a threshold test for the proposed [gas conservation] DSM programs." (Order No. 33444, at 9, AVU-G-15-03). Under the TRC, the utility and stakeholders compare the avoided energy, capacity, and quantifiable non-energy benefits against the costs to the utility and the program participant. Importantly, this test includes the program participant's incremental costs to purchase the equipment eligible for a rebate. However, these participant's costs are never borne by other ratepayers or shifted onto society, therefore it is not clear what roll these costs play in policy making. Meanwhile, the Utility Cost Test compares the avoided energy and capacity costs against the utility costs to administer and incent conservation measures. This comparison is a traditional role for policymakers, comparing the utility's costs and benefits to ensure fair-priced energy. As long as the benefits to the utility, which flow to customers by reducing or avoiding energy and capacity costs, exceed the costs to administer programs, policy makers can feel confident utilities are prudently spending ratepayer dollars.

Q. Intermountain Gas Exhibits 25 and 26 outline the proposed DSM measures. Do you have any comments?

A. The proposed measures are consistent with IGCs desire to encourage fuel-switching. As stated in IGC's response to Staff Request No. 158, "All participants in the Residential Space Heating Equipment Rebate under current rate schedule ER were new heating customers." In an apparent effort to continue this trend, all six measures in Exhibit 25 are incentives for high capital cost equipment targeting new customers. Absent from the portfolio are low-cost, easy to install measures targeting customers already using natural gas for water or space heat, as well as complimentary measures, such as weatherization, for new and existing customers.

Q. Intermountain sets their DSM target based on a "programmatic potential." Have you seen this level of refinement used before?

A. Having reviewed conservation potential assessments for multiple utilities and rural electric coops, I have never before seen the term programmatic potential used to determine DSM targets. In almost all cases, utilities use the achievable potential as the basis for setting their annual DSM goals. There is clearly value in determining what a programmatic potential is but it seems to be grossly misused in IGC's DSM determination.

First, we object to the definition of achievable potential given by Company witness Allison Specter. On page 13 of her testimony, she states that achievable potential "asks 'how much savings will result from *this* portfolio of utility rebate measures based on real-world conditions in Intermountain's service area, and customer awareness?'" This level of refinement – with a focus on "*this* portfolio" – more accurately depicts programmatic potential. Achievable potential does not take into account a utility's DSM program, but rather asks how much cost-effective DSM available in the service territory can a utility realistically capture over a set period of time. Or as

stated in the Cascade Natural Gas 2016 Integrated Resource Plan, "While technical and economic potential are both theoretical limits to energy savings, achievable potential embodies a set of assumptions about the decision consumers make regarding the efficiency of the equipment they purchase."[5] Utility programs should then be designed to influence these decisions towards conserving energy in order to achieve the cost effective potential. By starting with the energy savings a suite of programs may deliver, a utility hamstrings the effort to pursue all cost effective energy efficiency.

Generally speaking, the floor for achievable potential in utility conservation potential assessments is around 70% of economic potential. The Northwest Power and Conservation Council uses a 0.85 multiplier to get from economic to achievable.

Using the Company definition of achievable potential, IGC claims that only 97,825 out of 2,446,984 economically available savings – four percent - were achievable in 2016 (Company Exhibit 25). We contend that this number actually represents programmatic potential – 97,825 represents the total number of therms available to be captured based on the fuel-switching portfolio IGC has put forward. Instead, using the low of 70% as a multiplier, no less than 1,712,888 therms were achievable in 2016 utilizing a well-deigned DSM portfolio.

Q. Do you propose a different or complementary suite of measures?

A. Yes, along with the proposed incentives targeting fuel-switching, IGC should include low-cost measures such as low-flow showerheads and faucet aerators. These measures are most effective as direct install applications, often occurring during a home or business energy audit. IGC should also target energy savings from weatherization measure incentives, such as insulation and windows. These measures provide additional benefit by increasing the health and comfort of the

[5] Cascade Natural Gas, *2016 Integrated Resource Plan, Section 7 Demand Side Management.* Page 7-9

utility customer household and as such would likely pass both the utility cost test and total resource cost test.

Q. Do you recommend any DSM programs for low-income residential customers?

A. Yes, a low-income program is crucial for our support of a decoupling mechanism. Increases in rates due to investments in DSM can disproportionately impact low-impact customers if they are unable to participate in energy efficiency measures due to the initial cost barrier. We have discussed this issue with CAPAI and support their proposal. Absent immediate development of a low-income program, we cannot support the FCCM.

Q. Intermountain proposes DSM programs for residential customers only. Do you propose DSM measures for other customer classes?

A. Yes. Consistent with the practices of other natural gas utilities throughout the region – including IGC's sister company, Cascade Natural Gas – IGC should develop and implement a DSM program for the GS-1 General Service rate class. Also, consistent with other natural gas utilities, the savings potential per customer is significantly greater, allowing the utility to capture more energy savings at lower costs.

The average annual RS-2 (space and water heat) consumption was 718 therms annually (Blattner, p. 20). Within the GS-1 rate class: 37.5% of customers – nearly 12,000 accounts - use between 1,200 and 20,000 therms each year; roughly 570 accounts use between 20,000 and 60,000 therms; and roughly 100 accounts use over 60,000 therms per annum (Blattner, p 24). These numbers indicate the potential for large therm savings per customer.

In order to quickly capture significant energy savings, I have attached Exhibit 401 to my testimony – a description of the incentives Cascade Natural Gas offers for Commercial and Industrial customers in Washington – as a good starting point of the types of DSM measures IGC

should implement now. We recommend that going forward IGC should conduct an end-use study for its GS-1 customers and implement a more robust DSM program based on those findings.

FIXED COST COLLECTION MECHANISM

Q. Have you reviewed Intermountain's proposed Fixed Cost Collection Mechanism?

A. Yes. IGC proposes to break the link between the sale of natural gas therms and revenue, thereby ensuring the collection of fixed costs necessary to maintain and expand the distribution system. This is known as revenue regulation, though more commonly referred to as decoupling (decoupling can take on different forms as well). The FCCM will also remove the disincentive for IGC to pursue cost-effective DSM, theoretically allowing the company to treat DSM without prejudice in its requirement to reliably serve its customers. It is important to note that the FCCM would apply to the new RS (residential) and GS-1 (small commercial) rate classes, as well as the interruptible snowmelt rate classes.

Q. Do you have any recommendations for the FCCM?

A. I have both policy and technical recommendations. Generally speaking, ICL and NWEC support revenue regulation. This form of decoupling is typically adopted for utilities with known track records of DSM programs that cause identifiable impacts to fixed cost collections. The reasoning is that decoupling should address foregone fixed cost recovery attributable to utility actions to promote conservation. Foregone fixed cost revenue attributable to weather, economic conditions, or customer behaviors not influenced by IGC, while a feature of allocating fixed costs into variable bill components, are a normal risk to utility operations.

IGC proposes the FCCM without this track record of DSM accomplishments. Accordingly, at least in the early years of the DSM program ramp-up, most of the fixed cost volatility comes from factors outside Intermountain's control. And, because much of Intermountain's proposed DSM portfolio focuses on switching customers from electric to gas instead of gas conservation, even in later years the fixed cost volatility attributable to utility sponsored DSM, under the current proposal, is minimal to nonexistent. ICL and NWEC's support for the FCCM is directly tied to the quality of the proposed gas conservation programs; to the extent they focus on conservation for Residential, General Service, and Low Income customers, our support grows. However, without a robust DSM program that targets existing customers and DSM efforts beyond fuel switching and without a substantial low-income program, we cannot support the FCCM.

If the Company's DSM proposal is improved, and the FCCM considered, we offer the following recommendations on the technical side. Overall, we encourage the Commission and IGC to keep the decoupling mechanism as simple as possible during the early stages. Adding nuanced detail to the mechanism increases the likelihood that it will not accomplish its intended goals. Below we propose five changes to the structure of the FCCM.

Cap Rate Increase

Similar to the decoupling mechanisms used by Idaho Power and Avista, any increase in rates should be capped at no more than three percent annually. Research done by Pamela Morgan shows that "64% of all adjustments are within plus or minus 2%...[and] almost 75% are

within plus or minus 3%[6]." Capping rate increases at 3% limits potential extreme rate volatility due to factors outside of IGCs control, factors for which customers should not be penalized.

Per Customer Reconciliation

"Per customer" decoupling has seemingly become the preferred method of ensuring adequate fixed cost recovery for natural gas utilities. These utilities generally have robust DSM programs, limiting the long-term environmental and economic impacts of providing service to existing and new customers. The addition of a handful of new customers might warrant the need to ensure fixed cost recovery, especially considering that growth is likely to occur on the fringes of its distribution system.

It this case, however, IGC proposes a DSM program largely based on encouraging households and businesses to become new customers. These new customers will have access to DSM incentives and new, highly efficient appliances. They are, therefore, in a less risky position with regard to rate increases due to under-collection of fixed costs. While natural gas rates may increase to recover fixed costs, these new, fuel-switching customers inherently use gas more efficiently and as a result, rate impacts will have less impact on them.

Current existing customers, however, without access to DSM measures enabling them to purchase high-efficiency appliances or weatherize their home or business, will necessarily be in a position to pay higher rates and higher bills.

Without the presence of DSM measures for existing customers, total utility natural gas sales will likely increase rather than decrease due to fuel-switching new customers. Fixed cost recovery contained within volumetric sales should therefore not be an issue. These customers are also more likely to be located well within IGC's current distribution system, limiting fixed-cost

[6] Morgan, Pamela. *A Decade of Decoupling for US Energy Utilities: Rate Impacts, Designs and Observations.* 2012

needs. Because of this dynamic, per customer reconciliation would likely lead to over estimation of the revenue requirement and higher than necessary rates for customers.

The Commission could opt to use the attrition method to periodically adjust base rates for certain changes including number of customers. This could occur during the annual reconciliation process as proposed below. Conversely, NWEC and ICL would support use of the per customer method with inclusion of a more robust DSM program.

Per Month Reconciliation

Similarly, per month reconciliation is unnecessary at this time. As pointed out by Janine Migden-Ostrander and Rich Sedano of the Regulatory Assistance Project, "More frequent adjustments...can expose consumers to volatility from such factors as swings in the weather that can cause unusually high or low revenues...[7]" Low-income and fixed income customers can be particularly burdened by these swings in rates. Utilizing a cap on rate increases will help alleviate the impacts of these swings, though not eliminate them entirely. Calculating rates on a monthly basis is also an administrative burden, utilizing resources that could be better served by strengthening IGC's DSM program. A 2009 study by Pamela Lesh of Graceful Systems, LLC found that of 25 decoupled natural gas utilities, 19 of them used an annual rate true-up method. Only four used a monthly method while two used a semi-annual/quarterly method.[8]

NWEC and ICL propose removing the per month reconciliation provision of the FCCM and use total annual fixed cost calculations to set rates under the FCCM. If IGC or the

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[7] Migden-Ostrander, J., and Sedano, R. (2016). *Decoupling Design: Customizing Revenue Regulation to Your State's Priorities.* Regulatory Assistance Project. http://www.raponline.org/wp-content/uploads/2016/11/rap-sedano-migdenostrander-decoupling-design-customizing-revenue-regulation-state-priorities-2016-november.pdf

[8] Lesh, P. (2009), *Rate Impacts and Key Design Elements of Gas and Electric Utility Decoupling: A Comprehensive Review.* Page 6.

Commission determine after a period of time that fixed cost recovery calculations are not adequate on an annual basis, the issue could be revisited.

Removal of Largest Customers in GS Rate Cass

Intermountain states, "the largest GS-1 customers are similar to many Industrial LV-1 customers, and [are] very different from most GS-1 customers" (Blattner, p. 25). Ms. Blattner's testimony includes Table B.7 on page 25 that shows the largest 50 customers use 135,585 therms per year whereas as all other GS customers use 3,052 therms per year, a very large disparity. This disparity has the ability to disproportionately affect smaller GS users under the proposed FCCM. For example, if one large user were to drastically reduce natural gas consumption for any number of reasons – energy efficiency, the economy, change of business plan, etc – rates would necessarily increase for all other users in order for Intermountain to collect the required revenue. Again, a cap on rate increases could help alleviate some of these concerns but we question if a small business should have rates increase 3% due to the decisions made by a handful of larger businesses.

NWEC and ICL propose removing the largest 50 customers from the GS-1 rate class and the FCCM mechanism. Reducing the threshold for qualification in the LV-1 rate class could be considered as could a separate rate class for these customers (GS-2).

RATE DESIGN

Q. Does ICL and NWEC have an overall objective regarding rate design?

A. Yes, we believe all rate designs should send a meaningful price signal to encourage the efficient use of energy resources. This is one of Bonbright's rate design principles (Blattner p 19, ln 16 – p10, ln 7). This is also reflected in Idaho state policy that prioritizes cost effective energy

efficiency and instructs all state agencies "to consistently reinforce and support state objectives regarding energy efficiency." (State Energy Plan page 8-9.). Because Bonbright's principles include other important criteria – like simplicity, effectiveness, stability, and fairness – ICL and NWEC submit that rate design is an important area for the Commission and other stakeholders to balance policy objectives.

ICL and NWEC believe Idahoans are best served by sending price signals that encourage customers to use capacity and energy efficiently. We are concerned that Intermountain's rate design proposals reduce the commodity price signal in order to increase the customer charge. We believe this proposal is out of balance.

Q. Intermountain proposes changes to the Residential rates. Please comment.

A. Intermountain proposes to combine two current residential classes into a single residential class. (Blattner p 21, ln 9 – p22, ln 8) IMG also proposes to eliminate the seasonally differentiated rates, which in the winter increase the customer charge and reduce the gas distribution component of the per therm charge. ICL and NWEC agree with these proposals because they match cost causation, simplify rates, and maintain price signals for efficiency.

Customer Charge:

Intermountain also proposes to increase the monthly customer charge from a seasonally differentiated $2.50 summer and $6.50 winter monthly charge to a flat $10 per month. (see Exhibit 31, Sheet 1, note this increase was not covered in the testimony). This increase comes predominately from reducing the commodity costs. ICL and NWEC oppose this change for the following reasons.

First, to the extent the increased customer charge reduces the commodity charge, this change dilutes an important price signal for customers. Individual customers have no ability to affect the monthly customer charge. So while a relatively steep monthly charge maybe provide stability to utility collections, it sends no price signal to be more energy efficient.

Second, high monthly fixed charges disproportionately hurt low-income households because energy bills represent a larger portion of these households' monthly expenses. While it can be argued that rate increases due to DSM activities under the FCCM could also hurt low-income households, there is at the very least the opportunity to participate in energy savings measures under properly designed utility DSM and low-income weatherization programs. There is no opportunity to reduce a monthly fixed charge through either equipment or behavioral changes.

Third, the proposed FCCM would address the same issue that raising the customer charge is intended to address – fixed cost recovery through volumetric sales. ICL and NWEC believe that proper rate design incudes a low monthly customer charge along with a decoupling mechanism. Because it maintains a commodity price signal, is more fair to customers, and addresses revenue stability ICL and NWEC support a properly designed FCCM instead of increasing the monthly customer charge.

Q. What do you recommend for the RS class rate design?

A. Jim Lazar and Wilson Gonzalez of the Regulatory Assistance Project recently produced a paper that updates the Bonbright principles. In *Smart Rate Design for a Smart Future,* Lazar and Gonzalez define a customer charge as "a fixed charge to customers each billing period, typically

to cover metering, meter reading, and billings costs that do not vary with size or usage."[9] They also state that customer charges "should not exceed the customer-specific costs associated with an additional customer, such as the service drop, billing and collection."[10]

Based on these principles, we recommend setting the customer charge at $3.50 per month and adjusting the per therm charge to recover the remaining revenue requirement. This amount is derived from numbers in Company Exhibit 21, Class Cost of Service – Account Detail.

Customer Account Subtotal, Residential, page 10:	7,246,763
Customer Service and Information Subtotal, Residential, page 10:	183,418
Customer Account Subtotal, Residential, page 16:	3,911,317
Total:	11,341,498
Divided by total residential customers (302,790):	37.45
Divided into twelve months:	3.12

The Idaho Commission has approved similar customer charges for Idaho's other investor owned utilities not based on cost of service, rather on principles of fairness to customers and maintain the ability to send commodity price signals.

A quick survey of other northwest natural gas utilities indicates a mean of $7.68 and median of $7.37. At $10.00, Intermountain would have the second highest of the surveyed utilities, falling slightly behind Puget Sound Energy at $10.34. Despite these higher customer charges at other utilities, Intermountain's sister company, Cascade Natural Gas, is a decoupled natural gas utility operating with a $3.00/month residential fixed charge.[11]

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[9] Lazar, J. and Gonzalez, W. (2015). *Smart Rate Design for a Smart Future.* Regulatory Assistance Project. http:// www.raponline.org/document/download/id/7680. Page 83.
[10] Lazar, J and Gonzalez, W. Page 65.
[11] Utilities surveyed include Cascade Natural Gas, NW Natural- OR, NW Natural –WA, Puget Sound Energy, Avista – ID, OR and WA, and NorthWestern Energy.

We also recommend the Commission direct Intermountain to work with stakeholders to propose tiered, inclining block, commodity rates to further refine the balance between setting rates that reflect costs and sending a strong price signal for conservation.

Q. Intermountain proposes changes to the General Service rate design. Please comment.

A. Intermountain proposes three changes to the GS rate design – eliminating the seasonally differentiated customer charge, increasing the monthly customer charge and adding a fourth block to the per therm charge.

With regard to the customer charge, NWEC and ICL take a similar position as to the RS rate class. We have no objection to the elimination of seasonal rates as there is no cost or policy justification to have two different rates. However, the substantial increase in the customer charge severely diminishes the price signal sent to GS-1 customers to be more energy efficient. As with the RS rate class, Intermountain should consider lowering the customer charge and increasing the per therm charge in order to better establish this price signal. Following the same steps as with the residential class, we recommend the GS-1 customer charge be set at $10/month (actual calculation came to $8.23/month). Intermountain should also quickly roll out a commercial DSM program in order to assist small businesses in becoming more energy efficient.

The addition of a fourth declining block to the per therm charge exacerbates an archaic form of rate design that encourages consumers to use more energy. This proposal directly undercuts Intermountain's argument that the FCCM will allow the utility to effectively promote energy conservation. On the contrary, the largest users of the GS class will find minimal benefit in energy efficiency upgrades, and could potentially see bill increases due to these investments. A quick survey of natural gas utilities in the northwest region found that only Avista in Idaho uses a declining block rate structure for the GS rate classes.

The better policy option is to use inclining block rates, charging customers more – not less – per therm as they use more energy. Inclining rates send a strong price signal to customers that they should invest in energy efficiency, significantly reducing the payback time for these investments. If inclining block rates are not feasible, a flat per therm rate would achieve greater conservation impact than declining rates.

Q. Does this conclude your direct testimony?

A. Yes.

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BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF THE APPLICATION OF INTERMOUNTAIN GAS COMPANY FOR THE AUTHORITY TO CHANGE ITS RATES AND CHARGES FOR NAUTRAL GAS SERVICE TO NATURAL GAS CUSTOMERS IN THE STATE OF IDAHO	)	CASE NO. INT-G-16-02

DIRECT TESTIMONY

DIEGO RIVAS

EXHIBIT 401

CASCADE NAUTURAL GAS DSM INCENTIVES FOR COMMERICAL AND INDUSTRIAL CUSTOMERS

DECEMBER 16, 2016

CASCADE NATURAL GAS CORPORATION®
A Subsidiary of MDU Resources Group, Inc.
In the Community to Serve®

Commercial/Industrial Standard Incentives

Warm Air Furnaces - $3.00/kBtu/hr
High Efficiency Condensing Furnace—Min 91% AFUE

HVAC Unit Heater - $1.50/kBtu/hr
High Efficiency Non-Condensing Min—86% AFUE

HVAC Unit Heater - $3.00/kBtu/hr
High Efficiency Condensing Min—92% AFUE

Radiant Heating - $6.95/kBtu/hr
Direct fired radiant heating

Boiler - $4.00/kBtu/hr
High Efficiency Condensing Boiler
Min 90% Thermal Eff & 300 kBtu input

Boiler Vent Damper - $1,000
Min 1,000 kBtu input

Boiler Steam Trap[1] - $125
Min 300 kBtu in; steam pressure at 7psig or >

Domestic Hot Water Tanks[3] - $2.50/kBtu/hr
Condensing tank, Min 91% Thermal Eff

Domestic Hot Water Tankless Water Heater[3] - $60/gpm
ENERGY STAR® .82 EF

Attic Insulation - (retrofit only)
Tier 1: Min R-30 - **$0.50/sq ft**
Tier 2: Min R-45 - **$0.65/sq ft**

Roof Insulation - (retrofit only)
Tier 1: Min R-21 - **$0.60/sq ft**
Tier 2: Min R-30 - **$0.80/sq ft**

Wall Insulation[2] - (retrofit only)
Tier 1: Min R-11 - **$0.50/sq ft**
Tier 2: Min R-19 - **$0.56/sq ft**

Energy Savings Kits[3] - FREE
A: Kitchen Pre Rinse Spray Valve & Bath Aerators
B: Low Flow Showerhead

Ozone Injection Laundry[3] - $2,500
Venturi injection or bubble diffusion - Min 125 lb. total washer/extractor capacity. **Pre-approval required.**

Motion Control Faucet[3] - $105
Maximum flow rate of 1.8 gpm
WaterSense® Certified and Below Deck Mixing Valve

Clothes Washer[3] - $180
Commercial gas washer—1.8 MEF

Gas Convection Oven - $450
ENERGY STAR®
≥42% Cooking Eff/ ≤13,000 Btu/hr Idle Rate

Gas Griddle - $350
ENERGY STAR®
≥38% Cooking Eff/ ≤2650 Btu/hr sq ft Idle Rate

Gas Conveyor Oven - $600
Greater than 42% tested baking efficiency

Connectionless 3 Pan Gas Steamer - $850
ENERGY STAR® or CEE/FSTC Qualified
≥38% Cooking Eff / ≤2,083 Btu/hr/pan Idle Rate

Connectionless 6 Pan Gas Steamer - $1,200
ENERGY STAR® or CEE/FSTC Qualified
≥38% Cooking Eff / ≤2,083 Btu/hr/pan Idle Rate

Double Rack Oven - $2,000
FSTC Qualified
≥50% Cooking Eff/ ≤3,500 Btu/hr/Idle Rate D Rack

ENERGY STAR® Gas Fryer - $600

Door Type Dishwasher Low Temp Gas[3] - $650
ENERGY STAR®
≤.6 kw Idle Rate/ ≤1.18 gallon/rack

Multi-Tank Conveyor Low Temp Dishwasher[3] - $1,000
Gas Main w/Electric Booster ENERGY STAR®
≤2.0 kw Idle Rate; ≤ 0.50 gallons/rack

Recirculation Controls[3] - $100
Continuous Operation DHW Pump
Pre-Approval required.

Demand Control Ventilation[4] - $12/nominal ton
5 tons ≤ Unit Cooling Capacity ≤ 20 tons. Pre-Approval Required.

If you are planning equipment or building upgrades that do not fit within the standard incentives, but significantly reduce natural gas consumption, please call 866.450.0005 to learn about custom project opportunities.

Mixed purpose facilities that include buildings on both Residential Rate Schedule 503 **and** qualifying Rate Schedules 504, 505, 511, 570, and 577 as part of the same Cascade Natural Gas customer account shall also be eligible for custom conservation incentives.

[1] This measure will only be allowed where the customer agrees to regular trap maintenance and replacement every seven (7) years.

[2] Minimum value of R-11 applies only where existing walls have no internal insulation cavities.

[3] Incentive eligibility contingent upon use of natural gas fired domestic hot water serving the specified measure equipment or fixture.

[4] For Existing Packaged HVAC Units equipped with Gas Fired Furnace and Direct Expansion Cooling Sections. DCV Unit Controller must meet Joint Utility Advanced Rooftop Control Guidelines

Updated 09/16

Who is eligible to participate?

- Must be a new or existing commercial or industrial customer of CNGC on one of five qualifying rate schedules: 504, 505, 511, 570 or 577.
- Incentives apply on qualified high-efficiency natural gas equipment such as heating, insulation, water heating systems, cooking equipment installed as replacement, retrofit as well as new installation in place of standard efficiency equipment. If the equipment installation, replacement, or retrofit provides significant increase over existing high-efficiency equipment, and is not listed here please contact program representative for potential custom incentive.
- Insulation must be installed in an existing building, heated by natural gas, without functional insulation.
- Eligible measures installed are subject to the available incentives coinciding with the date of the installation as outlined in CNGC's tariff.
- Customers requesting incentives for site-specific energy efficiency measures must submit estimated costs and natural gas savings associated with the project. Natural gas savings are to be calculated using standard engineering practices. CNGC will review the natural gas savings calculations, and reserves the right to modify energy savings estimates.

How to qualify for Cascade Natural Gas incentives

1. Establish your eligibility. Call 1.866.450.0005 or visit www.cngc.com/conservation for program requirements.
2. Install energy-efficient upgrades. Contact a participating Trade Ally contractor or licensed contractor to install eligible measures.
3. Get the application, available online at www.cngc.com/conservation.
4. Sign and submit the following forms:

C&I Standard Incentive application • W9 form •
Invoice/Quote for equipment installation • Manufacturer's spec sheet

Send forms to:

Mail: Cascade Natural Gas Corporation, c/o Lockheed Martin Energy and Environmental Services
22121 20th Avenue SE, Bothell, WA 98021

Fax: 1.877.671.2998

Upon receipt of completed application, please allow six weeks for processing and payment.

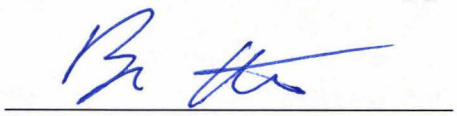
Get started today!

To apply for an incentive, apply online or download a PDF application at www.cngc.com/conservation and return it by fax or mail.

Questions on food service, lodging or health care projects? Call Bill Prillaman, 503.278.3078

CERTIFICATE OF SERVICE

I hereby certify that on this 16th day of December 2016 I delivered true and correct copies of the foregoing DIRECT TESTIMONY OF DIEGO RIVAS to the following persons via the method of service noted:



Benjamin J. Otto

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