BEFORE THE PUBLIC UTILITY COMMISSION

OF OREGON

UM 1744

In the Matter of NORTHWEST NATURAL GAS COMPANY, dba NW NATURAL, Application for approval of an Emission Reduction Program.	STAFF'S PREHEARING BRIEF

1. Introduction

Staff files this prehearing brief in anticipation of the hearing scheduled for Novembe19, 2015. Staff will first discuss the law that governs the consideration of Northwest Natural Gas Company (NWN or Company) Application for Approval of NW Natural's Combined Heat & Power Solicitation Program (Application). Staff will then summarize relevant parts of the Application. Staff will then set forth and explain the issues it has identified concerning the Application.

2. Applicable Law

The Company filed its Application pursuant to ORS 757.359 and OAR 860-085-0500 through 860-085-0750. These laws are intended to provide an incentive for a "natural gas utility" (NGU) to invest in projects that reduce certain types of emissions [for the purposes of this brief, sometimes referred to as either "greenhouse gas" (GHG) emissions or "carbon" emissions] and provide benefits to natural gas customers. ORS 757.539(1). The statute further sets forth eligibility criteria, as well as information that the NGU must provide with its application, for proposed projects. ORS 757.539(3), (4); *see also* OAR 860-085-0600.

ORS 757.539(8)(b) delineates the methods by which the NGU may recover its costs, investments and incentives. The Commission's rules expressly provide that the Commission has the discretion to grant incentive payments. *See* OAR 860-085-0750. If such payments are allowed, the total costs to ratepayers of all incentives received may not exceed 25 percent of the

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project cap specified in OAR 860-085-0700. In turn, OAR 860-085-0700 provides that the projected costs of all qualified projects cannot exceed four percent of the utility's last approved retail revenue requirement. Moreover, the cost of the incentives to the NGU is included in the determination of the costs to ratepayers under the prescribed four percent total cost cap.

While there are other sections of the statute and other rules that are important, of course, the sections discussed above are most relevant to the issues presented by the NWN's Application.

3. Key Aspects of NWN's Application

NWN proposes to offer what it terms a "Combined Heat & Power" (CHP) solicitation program (CHP Program). CHP is a form of distributed generation that combines electricity and thermal generation into a single process. CHP can save up to 35 percent of the energy required to accomplish these processes separately. The energy efficiency (EE) comes from the displacement of natural gas with what would otherwise be considered "waste heat" for use in space and water heat and industrial processes. *See generally* Application at 3. CHP systems can range in size from one kilowatt (kW) to hundreds of megawatts (MW). NWN/100, Summers/3.

Under the CHP Program, the Company would solicit its customers to invest in on-site CHP facilities. As proposed, customers who enroll in the CHP Program ("Participants") would receive an incentive of $30 per "metric tonne of CO2 emissions" displaced [referred to as MTCO2(e)] through use of the CHP facility. Although a CHP system has an expected life of 20 years, the Participant-incentive payments would be made on a quarterly basis for 10 years. Application at 4, 7. NWN has set its Participant incentive at a level it has determined is necessary to incent its customers to participate, which is primarily based upon a level sufficient to allow for a payback period of the Participant's entire capital investment within three to four years. Application at 10; NWN/101, Summers/14. Each Participant site would be capped at $4.5 million of incentive payments per year. NWN/101, Summers/14.

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The CHP Program has a target or goal of reducing GHG emissions by 240,000 MTCO2(e) per year by the end of 2020. Application at 5. This equates to about 21,898 homes' energy use or 66.1 wind turbines. Staff/200, St. Brown/3. The Application states that the Company's customers would benefit from the CHP Program due to lower incremental rates for all customers arising from lowered average system costs and increased system reliability due to the increased load from CHP. Application at 5-6.

For itself, NWN proposes a company-incentive of $10 per MTCO2(e). According to NWN, this level of incentive is within the 25% cap set by OAR 860-085-0700, based upon a cost of carbon of $42.59 per MTCO2(e). Application at 9.

The Company proposes to use the Environmental Protection Agency's (EPA) "eGrid Nonbaseload carbon emissions value" ("eGrid methodology) to calculate the MTCO2(e) value. Application at 7. In its Reply Testimony, the Company stated that the eGrid numbers were updated as of October 8, 2015. In terms of issues analyzed in this brief, the current eGrid number proposed and relied upon by the Company is 1,579 CO2 lbs./MWh (up from the original number of 1,340 CO2 lbs./MWh). NWN/500, Summers/2.

NWN originally estimated that the cost of the CHP Program to its customers could reach as high as 2.1% of its last approved retail revenue requirement (or $10.2 million per year). Application at 13; NWN/200, Speer/3-4. Since that original estimate, the Company has stated that the costs are hard to predict with certainty, and has provided cost estimates ranging from $0.63 to $2.50 per month per residential customer. Staff/100, Klotz/5.

With regard to ORS 757.539(3)(g)'s "but for" test, the Company states that it would not propose the CHP Program in its ordinary business. The reason, according to the Company, is its CHP Program is based on incentives which it could not previously lawfully recover the costs of providing "but for" the provisions of ORS 757.539. Application at 6.

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4. Staff's Issues with NWN's Application

Staff has submitted two rounds of testimony in this docket, sponsored by Senior Utility Analyst Jason Salmi Klotz and by Utility Economist Max St. Brown. *See generally* Staff/100, 200, 300 and 400. Staff's multiple concerns with the Application may be distilled into seven broad categories, summarized as follows:

A. Overall High Program Costs, High Costs to Customers, and Customers assume Cost Risks (Staff/100, Klotz/5-8; Staff/100, Klotz/11-14; Staff/300, Klotz/2-6);
B. Overall Program Benefits Unclear and Insufficient (Staff/100, Klotz/8-11);
C. Overly-generous Participant Incentive Structure (Staff/100, Klotz/17-18; Staff, 200, St. Brown/4-17; Staff/300, Klotz/6-8, 24-26; Staff/400, St. Brown/2-20);
D. Proposed Company Incentive is overly-generous and possibly unnecessary (Staff/100, Klotz/12-14; Staff/200, St. Brown/18-23);
E. Emission Reduction Calculation Methodology (Staff/300, Klotz/9-26);
F. Fuel Switching (Staff/300, Klotz/26-30); and
G. Measurement and Verification (Staff/100, Klotz/14-17).

Staff will discuss each of these issues in turn.[1]

A. Overall Program Costs, Costs to Customers and Cost Risks

In its broadest terms, the basic issue in this proceeding is the cost to customers to achieve the level of carbon emissions reductions sought. In other words, Staff understands and agrees that GHG emissions reduction is a worthy goal that NWN hopes to achieve with its CHP Program. However, Staff's overall concern is the cost to NWN's customers to achieve the goal sought by the CHP Program.

After review and analysis, Staff concluded that the CHP Program costs are too high as compared to the identified benefits. Staff/100, Klotz/5. Per the Application, the CHP Program could cost over $100 million ($10.2 million per year for ten years; or 240,000 MTCO2(e) at a cost of $42.49 per ton = $10.197 million). Application at 5, 9; Staff/300, Klotz/2. This is more

[1] While not an issue per se, Staff has been concerned with the lack of consistent and reliable information provided by NWN throughout this proceeding. Staff's primary concern in this area is NWN's use of data request responses to update, change or supply for the first time key information related to its Application. This includes information related to customer bill impacts and the imposition, and then withdrawal, of an overall cost cap to the CHP Program. Staff found NWN's trickling of important information in this manner to the parties to be very challenging in assessing the its Application.

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than the rate increase that resulted from the Company's more recent rate case. Staff/300, Klotz/2.

Further, Staff notes that the Program costs are not clearly identified by NWN. These costs may vary depending then number of CHP units and their operating hours, and while not clearly defined by the Company in its Application, the average bill impact to residential customers seems to range from $0.63 to $2.50. Staff/100, Klotz/5-6. This equates to a possible 2.2 percent increase to this one customer class. Staff/100, Klotz/6. The same data shows some industrial customers could get hit with a nine percent increase. *Id.* These costs are too high for one single project. *Id.* As such, Staff recommends that, should the CHP Program be allowed to proceed, that there be cap on the overall costs of the CHP Program. Staff/300, Klotz/5.

Staff is also concerned because NWN has structured its CHP Program such that the Company carries no risk should it fail in any manner. As with other ventures, the Company should be held responsible should it poorly administer the Program and share the risks associated with it, including the risk that CHP incentives provided by other governmental agencies or programs do not materialize as expected. Staff/300, Klotz/3-4; Staff/100, Klotz/ 11-12.

B. Overall Program Benefits Unclear and Insufficient

The Company identifies the general public benefit arising from reducing GHG emissions by 240,000 MTC02(e) per year. However, Staff finds that it is unclear which carbon emissions reductions can be attributed to NWN's proposed CHP solicitation program because the ICF International report, which is not based on local state or utility-specific incentives, finds that "it is not unexpected that there will be significant levels of CHP … market penetration in the near future." Staff/200, St. Brown/9.

Along with the general public benefit of arising from reducing GHG emissions, NWN specifically identified the benefit to its customers resulting from increased customer loads ("throughput") that would occur through the CHP Program. These increased loads would lead to lower incremental customer rates. Application at 5-6. NWN witness Speer quantifies the benefit

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of additional throughput as $132,283 annual benefit margin for every 10 MW of newly-installed CHP capacity. NWN/200, Speer/2. NWN further asserts that ORS 757.539 does not require program benefits to outweigh program costs in that the legislature impliedly established that "a reasonably priced voluntary program that lowers carbon emissions effectively is inherently beneficial..." NWN/300, Summers/12-13.

Without necessarily agreeing with Ms. Summers' legal interpretation of ORS 757.539, Staff can find common ground with her assertion that carbon emissions reduction programs must be "reasonably priced." Staff concludes that the CHP Programs is not reasonably priced when compared to its benefits. Staff/100, Klotz/8. NWN's single identified specific benefit of increased system load, with its potential associated lower incremental rate impacts, and the general benefit of 240,000 MTCO2(e) per year emission reductions, is insufficient when compared to the potential rate impacts to its customers as discussed in the immediately preceding section. Staff/100, Klotz/8.

Nonetheless, Staff did identify other possible benefits that may arise from the CHP Program and suggested NWN explore them. These potential benefits include a cross-utility benefit of reduced electric demand and possible future compliance with the EPA's Clean Power Plan. *See* Staff/100, Klotz/9-10. NWN responded to Staff's testimony by stating it agreed that there were other benefits from its CHP Program but that they were difficult to quantify. NWN/300, Summers/13.

C. Overly-generous Participant Incentive Structure

It is probably fair to say that NWN, Staff and the interveners would all agree that it is not easy to ascertain the level of incentive that is "just right" to entice customers to participate in the CHP Program but not over-pay them to do so. Staff concludes that NWN's proposed incentive amount of $30 per MTCO2(e) crosses the line of "just enough" and provides more dollars than is required to accomplish the task. Instead, Staff proposes the Company use a "reverse auction" process to best determine a reasonable Participant incentive level.

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As stated, NWN proposes a $30 per MTCO2(e) (sometimes referred to in this brief as "$30 per ton") of emissions reduction as an incentive to entice potential customers to invest in a CHP system. NWN/100, Summers/8. NWN arrived at its $30 per ton amount based on the results of a model developed by the United States Department of Energy (USDOE)'s Technical Assistance Program at Washington State University (WSU). The model is referred to in this proceeding as the "RELCOST model." *Id.* The $30 per ton amount results from the model's assumption of 8,322 CHP operating hours (95 percent capacity factor) and 100 percent utilization of reclaimable waste heat. *Id.* In addition to NWN's Participant incentive, CHP customers may also apply for incentive payments offered by the Oregon Department of Energy (ODOE) and the Energy Trust of Oregon (ETO) and a Business Investment Tax Credit (ITC). NWN/100, Summers/9.

Simply put, Staff concludes that the Company's $30 per ton Participant incentive is too rich. Staff/400, St. Brown/2. Instead, Staff proposes that the Company conduct a "reverse auction" to clearly identify the amount of incentive required to entice customer participation in the program without paying these customers too much. *See generally* Staff/200, St. Brown/12-17. However, if a reverse auction is not used, then Staff finds it extremely difficult to determine the correct incentive to pay on a per ton of MTCO(e) reduced basis before having an agreed-upon methodology to set the carbon emissions reduction value (the method for determining the amount of carbon emissions reduced by operating a CHP system is discussed in detail in Section 4(e) below). As such, Staff presents an alternative approach of determining the aggregate customer incentive payments for plants operating at full capacity. *See* Staff/400, St. Brown/13-20.

(i) $30 per ton is overly-generous to incent customers to participate in the CHP Program

The Company set its per ton Participant incentive at a level that was sufficient to achieve a "simple payback" period of three to four years of a Participant's investment in the CHP system, including all other available incentives. NWN/100, Summers/7. As a base case scenario, the

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Company forecasts that five of its customers will participate in the CHP Program, resulting in 120 MW of installed capacity. Staff/200, St. Brown/6.

After extensive review and analysis, Staff was not persuaded that NWN's $30 per ton incentive was the correct level needed to incent participation in the CHP Program. As Staff explained in detail, the overall size of NWN's proposed CHP solicitation program should be considered because, due to the increasing marginal costs nature of the proposed program, if the program's 240,000 MTC02(e) per year emissions reduction goal were cut in half, then the program's total cost would be reduced by more than half. Staff/200, St. Brown/8-11. Another way of looking at the issue is NWN's proposed flat rate customer incentive would overpay certain customers. *Id.*

In its Reply Testimony, Staff analyzed a new base case presented by NWN in its supplemental response to Staff IR 11. For illustrative purposes, the Company presented a base case that assumes that customers with CHP systems of 500 kW, 800 kW, 4.3 MW, 21.7 MW and 45 MW participate in the CHP Program. Staff/400, St. Brown/2-3.

Staff analyzed these different scenarios and determined that, for three reasons, such customers would all participate for less than $30 per ton. Staff/400, St. Brown/3. These reasons, which Staff discusses in detail in its Reply Testimony, are:

1. Returns for these Participants would be nearly twice NWN's approved cost of capital;
2. In computing the years-to-payback period, the Company may be overstating the incremental costs of a CHP project; and
3. The Company did not include in its payback calculations the fact that customers have a benefit of improved power reliability associated with its newly-built CHP system.

Staff/400, St. Brown/3-7. As to Item 2 immediately above, NWN seems to concede in its last round of testimony that it has inflated or misstated the CHP incremental costs when it notes that, when it re-ran the RELCOST model for a 45 MW CHP system with only 70 percent of reported installed costs, the payback period without any customer incentive was still only four years. *See* NWN/500, Summers/14-15.

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Further, Staff questioned NWN's reliance on a "simple payback period of three to four years" as it key criterion for setting the Participant incentive level. Staff describes an alternative approach to investment decisions known as the "internal rate of return" (IRR) method. *See generally* Staff/400, St. Brown/8-12. Simply stated, the IRR is the discount rate that equates to the present value of cash outflows for an investment with the present value of its cash inflows. So, a potential investor would compare the IRR on a project to its own cost of capital and accept any investment proposal with an IRR equal to or greater than the investor's cost of capital. Staff/400, St. Brown/8.

Staff used the IRR method to compute IRRs for CHP projects at different sizes. The results showed project IRRs that range from 16.0 percent for 800 kW projects to 24.9 percent for a 45 MW project. *See* Staff/400, St. Brown/11-12. These IRRs are well-above NWN's approved 7.778 cost of capital. Staff/400, St. Brown/4. The Company assumed a capital cost of 7.778 percent for the 45 MW CHP plant in its response to Staff IR 11. Staff/401, St. Brown/2. Staff found that an IRR of 10 – 15 percent is a commonly required IRR for companies to participate in energy efficiency projects. Staff/400, St. Brown/15. Staff concludes from use of the IRR method that NWN's proposed $30 per ton Participant incentive is overly generous and not required to induce customer participation in its CHP Program. Staff/400, St. Brown/4.

Staff further noted that it was concerned with using NWN's proposed "payment per ton" method because the methodology for setting the carbon emissions reduced has not yet been agreed upon by the parties. *See* Staff/400, St. Brown/13 (the method for determining the amount of carbon emissions reduced by operating a CHP system is discussed in Section 4(e) below). Instead, Staff suggested using a total dollars per year payment in order to ascertain the level of incentive that is "just right" to entice customers to participate in the CHP Program but not over-pay them to do so. *See* Staff/400, St. Brown/13. Staff presents these dollars per year incentive payments for the 1.6 MW, 0.5 MW, 4.3 MW, and 21.7 MW plants in Table 1 of its response testimony. *See* Staff/400, St. Brown/16. Staff disputes the Company's method for computing

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annual incentive payments for CHP systems of 45 MW capacity but did not have the response to its IR 45 on this issue needed to make this computation at the time it filed its testimony. Staff/400, St. Brown/19. However when the Company re-ran the RELCOST model for a 45 MW CHP system with only 70 percent of reported installed costs, the IRR without any customer incentive was 20.6%. NWN/500, Summers/14-15.

Finally, for comparison purposes, Staff converted its IRR method (also referred to in Staff's testimony as the "aggregate yearly customer payments" method) to a customer incentive payment per ton of MTC02(e) of emissions reductions . Staff determined that the appropriate range for the Participant incentive would be $0 to $10 per ton of MTCO2(e) emissions reduced. Staff/400, St. Brown/19-20.

Lastly, Staff witness Klotz built upon the IRR aggregate yearly customer payment analysis prepared by Staff witness St. Brown to arrive at a possible range for the Participant incentive to be compared to NWN's proposed $30 per ton proposal. *See* Staff/300, Klotz/24-26. Staff calculated this range, using NWN's original eGrid carbon value of 1,240 CO2 lbs per MWh (the eGrid model is discussed further in Section 4(e) below), to be between $0 to $10 per ton of emission reduction, with $3.34 per ton being a reasonable value. Staff/300, Klotz/25.

(ii) Staff advocates for use of a reverse auction to determine the Participant incentive

Because of its concerns with the Company's proposed $30 per ton incentive, and in recognition that it is extremely difficult to determine the correct amount of incentive based upon theories and assumptions, Staff proposes a method that in essence asks potential participants to identify the minimum level of acceptable incentive. This method is known as a "reverse auction." *See generally* Staff/200, St. Brown/12-17. There are different approaches to a "reverse auction," but, simply-stated, the auctioneer is the "buyer" of the product (here, GHG emission reductions through installation of CHP systems) and the bidders are the suppliers of the product. Staff/200, St. Brown/12. While Staff provides examples of various reverse auctions and provides basic criteria for constructing such auctions (Staff/200, St. Brown/12-17; Staff/400, St.

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Brown/10), it is important to note that Staff does not have a specific proposal for creating a reverse auction for NWN's CHP Program. Instead, Staff recommends that the Company work with an expert consultant, as necessary, to produce an acceptable proposal. Staff/200, St. Brown/1-2.

D. Company Proposed Incentive for itself is overly-generous and may not even be needed

The Company proposes to be paid an incentive of $10 per MTCO2(e). Application at 9. Notably, NWN does not clearly state why it seeks an incentive for offering its CHP Program. Instead, the Company simply desires a "benefit" from doing so and that such a payment would "provide a strong signal to the Company" to seek to develop other such programs. *See* NWN/100, Summers/18-19.

Staff's analysis of the issue reveals that the Company would receive adequate benefits from the CHP Program even in the absence of an ear-marked dollar incentive such as the Company proposes. Staff/200, St. Brown/18. Based upon the Company's base case, these benefits include increased margin of approximately $16,335,209 due to increased sales of natural gas. Staff/200, St. Brown/18-22. Further, the Company obtains a benefit from increase CHP facilities on its system in relation to the new compliance requirements under the EPA's Clean Power Plan rule. Staff/200, St. Brown/22. Because of these benefits, Staff concludes that the Company may not require an incentive payment at all (i.e. range that includes $0 as the incentive). *Id.*

Further, Staff is concerned that $10 per MTCO2(e) represents almost 25 percent of the overall program costs. This is clearly excessive in light of the other benefits Staff identified. Staff/100, Klotz/12-13. And, it is excessive in light of the effort undertaken to create and implement the Program. Staff/100, Klotz/13-14. However, based upon persuasive testimony presented by the Northwest Industrial Gas Users (NWIGU), and its reliance upon market data, Staff concludes that an incentive to the Company of $5 per MTCO2(e) would be reasonable. Staff/300, Klotz/7-8.

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E. Emissions Reduction Calculation Methodology

A contentious issue of NWN's CHP Program proposal is how to calculate the amount of GHG or carbon emissions reduced, or "saved," by installation of a CHP system. Another way to view it is how to account for the grid electricity that is displaced by operating a CHP system. The determination of this value is important because it represents a component of the equation by which NWN's proposed Participant incentive will be paid: i.e. "[CO2 savings per MWh] x [Participant Incentive] = Total Participant Dollars Paid." So, the higher the CO2 savings value, the more the Participants are paid for use of their CHP systems.

NWN proposes to determine the avoided MTCO2(e) emissions from electric generation by comparing the difference between (1) the monitored and verified MTCO2(e) savings from operation of a CHP system to (2) the calculated MTCO2(e) emissions if the same volume of electricity had been purchased from the grid. NWN/100, Summers/11-12. For the calculated MTCO2(e) emissions, NWN proposes to rely upon the baseline recommended by the EPA for CHP systems sited in Oregon – EPA's most recent "eGrid Nonbaseload carbon emissions value" for the Northwest Power Pool (NWPP) sub-region (eGrid methodology). *Id.* The value calculated was 1,340 CO2 lbs per MWh when NWN originally filed its Application, but it has recently been updated to 1,579 CO2 lbs per MWh. NWN/500, Summers/2.

Staff, along with several interveners, disagrees with NWN's choice of the eGrid methodology to calculate CO2 savings. The issue is admittedly complex and Staff discusses the matter at length at Staff/300, Klotz/9-26.

Staff first sets forth the concerns it has with using the eGrid method. *See generally* Staff/300, Klotz/11-12. Briefly stated, Staff has concerns with the following aspects of the eGrid methodology: the emissions savings by program vary over time, the eGrid model cannot run future scenarios, the model uses a very broad geographic profile (including plants that do not serve Oregon), and, because the eGrid model includes non-Pacific Northwest region states, it does not fully account for the Pacific Northwest's heavy reliance on hydro power. *Id.*; *see also*

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Staff/300, Klotz/21 (showing a graphic comparison of eGrid model to other models proposed by the parties).

After review and investigation, Staff proposes that a model set forth by the Northwest Power and Conservation Council (NWPCC) be used to set the CO2 savings value. *See* Staff/300, Klotz/17-23. The NWPCC model presents a range for the carbon value of between 700 and 1800 CO2 lbs per MWh. Staff/300, Klotz/17. Staff explains at length why it favors the NWPCC model. The NWPCC model effectively models the effects of hydro-generation on available power and the relationship of the Northwest power system to end-use efficiency. Staff/300, Klotz/17-18. It is also produces a carbon value that is a regionally-vetted number. Staff/300, Klotz/18. Further, the NWPCC model is developed by a local neutral third party which has a nationally-recognized role in energy efficiency measurement and verification. Staff/300, Klotz/19. The Power Council's emissions rate number is used in the Power Plan to assess the value of end-use efficiency and generation, similar to CHP systems. *Id.* And, the NWPCC model is developed in a manner approximating utility model rigor. *Id.* The only clear disadvantage of the NWPCC model as compared to the eGrid model is that the former is not updated as frequently as the latter. Staff/300, Klotz/18.

Staff set forth its criteria for choosing carbon models at Staff/300, Klotz/19-21. As shown by the chart on page 21 of that testimony, the NWPCC model best fits Staff's five proposed carbon model criteria.

F. Fuel Switching

Portland General Electric Company (PGE) and PacifiCorp are concerned about the proposed use by the CHP Program of ratepayer funds to promote "fuel switching." *See* PGE/100, Barra/2-3; PGE/200, Barra/2-3; PAC/100, Wiencke/1-4; PAC/200, Wiencke/3-4.[2] For its part, the Citizens' Utility Board (CUB) does not directly discuss the issue of fuel

[2] PGE and PacifiCorp both rely upon the Commission's definition of "fuel switching" as "any substitution of one type of energy or fuel for another." OAR 860-027-0310(1)(b).

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switching but asks the Company to consider load-shifting in assessing the benefits of its CHP Program. CUB/100, McGovern-Jenks/10.

Staff's position on the issue is that while history shows the legislature did not expressly consider fuel switching in drafting what became codified as ORS 757.539, the statute either implicitly allows for it or does not preclude it. Staff/300, Klotz/27-28. But, to address this aspect of the NWN's proposed project, Staff recommends that the net costs of the CHP Program, excluding the Company incentive, should be subject to an earnings test. Staff/300, Klotz/29; *see also* CUB/100, McGovern-Jenks/20-21.

G. Measurement and Verification

Staff identified four concerns with some aspects of NWN's proposed method of measuring and verifying (M&V) the MTCO2 savings claimed by the program's Participants. *See* Staff/100, Klotz/14-16. For the purposes of this brief, Staff has two remaining primary concerns. First, Staff is concerned with NWN's proposed use of an energy consulting firm known as "Energy 350." While not necessarily objecting to the participation of Energy 350, the firm's close working relationship with NWN may possibly lead to Energy 350 not operating independently from the Company in the performance of its work. Staff/100, Klotz/15-16. Second, Staff was concerned that NWN proposed its M&V plan without submitting a proposal for the information that will be reported to the Commission and how violations or anomalies by Participants would be addressed. Staff/100, Klotz/16.

Subsequent to Staff's initial testimony, NWN addressed Staff's second primary concern about reporting to the Commission. *See* NWN/300, Summers/27-28. The Company also responded to Staff's concerns about Energy 350's independence and stated it was willing to work with Staff to ensure the firm operates free from interference by the Company. NWN/300, Summers/29-30.

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5. Conclusion

Staff sees many merits in a CHP program generally described by NWN. However, Staff disagrees with the Company on several issues including the likely market response, the level of incentives, and the appropriate rate impact on all other customers. For the reasons stated, Staff requests that the Commission deny NWN's Application as proposed. Staff believes there is still value in trying to work through areas of disagreement in order to design a successful and workable program under this novel statutory approach.

DATED this 12th day of November, 2015.

Respectfully submitted,

ELLEN F. ROSENBLUM
Attorney General

Michael T. Weirich, #82425
Assistant Attorney General
Of Attorneys for Staff of the Public Utility Commission of Oregon

Department of Justice
1162 Court Street NE
Salem, OR 97301-4096
(503) 947-4520 / Fax: (503) 378-3784