ORDER NO. 16 132

ENTERED MAR 30 2016

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.	ORDER

DISPOSITION: APPLICATION DENIED

I. INTRODUCTION

As authorized by Senate Bill (SB) 844,[1] Northwest Natural Gas Company, dba NW Natural, seeks approval of its first voluntary emission reduction proposal, a Combined Heat and Power (CHP) program. We divide this order into two parts. First, we describe NW Natural's proposal, parties overall positions, and provide our rationale for our decision to deny NW Natural's application. Second, we provide guidance on three contested design issues (emission reduction value methodology, fuel switching, and use of Energy Trust of Oregon (ETO) funds for the program), and overall program design.

II. BACKGROUND

NW Natural's CHP program is intended to incentivize customers to install CHP systems by paying customers for measured and verified emission reductions. NW Natural asserts that CHP systems reduce emissions by displacing central station generation. CHP, or cogeneration, produces electricity and heat in an integrated system at a facility that uses electricity and heat at all hours. According to NW Natural, combining electricity and thermal energy generation into a single process can save up to 35 percent of the energy required to perform these tasks separately.

The Citizens' Utility Board of Oregon (CUB), the Northwest Industrial Gas Users (NWIGU), Portland General Electric Company (PGE), PacifiCorp, dba Pacific Power, NW Energy Coalition (NWEC), Climate Solutions, and Oregon Department of Energy (ODOE), intervened in this proceeding. Throughout the proceeding, parties filed several rounds of testimony and briefs. A hearing was held on December 18, 2015.

[1] ORS 757.539; OAR 860-085-0500 *et al.*

III. DISCUSSION

A. Summary of NW Natural's Proposal

NW Natural maintains that the CHP program meets all required criteria under SB 844, because it will reduce carbon emissions, benefit customers, and is not a project the company would undertake in its ordinary course of business. NW Natural states that CHP provides the greatest natural gas-related opportunity to reduce carbon emissions in Oregon, based on findings from ODOE and others. NW Natural projects that the potential to reduce carbon emissions from CHP is nearly equal to all other proposed measures combined (natural gas vehicles, renewable natural gas, energy efficiency, system upgrades, and oil conversions).

1. Incentives and Program Costs

NW Natural proposes two incentives to encourage installation of CHP systems. First, the company proposes a payment to CHP program participants of $30 per ton of carbon reduced. NW Natural states that this incentive level will reduce a participant's payback period to recover its CHP investment costs within three to four years, which ICF International identified as required to achieve 30 to 40 percent of the economic CHP potential in Oregon. In addition to NW Natural's payment, the model assumes that participants will apply for state tax credits through ODOE covering 35 percent of the project cost, a federal tax credit covering 10 percent of the project cost, and ETO incentives capped at $500,000.

Second, NW Natural proposes a payment to the company of $10 per ton of carbon reduced. The company explains that a $10 per ton incentive is appropriate as a baseline for future SB 844 projects and is under the 25 percent program cap established by our rules. NW Natural adds that the $10 per ton incentive will represent a smaller percentage of future program costs, because the CHP program will likely have the cheapest carbon cost of any SB 844 program.

In addition to these incentives, NW Natural expects the program will cost $2.59 per ton for program administration. Thus, the total cost of carbon under the program will be $42.59 per ton of CO_2 equivalent reduced. The company proposes to track these costs in a deferred account, and will file to amortize the account coincident with the company's annual Purchased Gas Adjustment (PGA) filing. NW Natural states that, under its assumed high utilization rate, the program could annually reach 2.1 percent of the company's last approved retail revenue requirement, with a total dollar amount up to $10.2 million in the peak year. For the rate impact, NW Natural anticipates increased costs attributable to the CHP program of 1.51 percent on average across all customer classes ($0.99 monthly residential rate increase).

2. *Benefits to Customers*

NW Natural states that the increased gas load from CHP will benefit all of NW Natural's customers in two ways. First, NW Natural states that the program is inherently beneficial because it will lower carbon emissions. Second, it notes that the CHP Program will increase sales and throughput. In a rate case, the increased throughput provides a larger base over which system costs can be spread, resulting in a reduction of average system cost (total system cost / total system load). In between rate cases, NW Natural will defer and pass through 100 percent of increased margins through a deferred account, estimating approximately $623,551 per year to be shared equally between all customer classes.

3. *Quantification of Carbon Reduction*

NW Natural proposes to quantify carbon reduction by calculating the avoided carbon emissions if the electricity had been purchased from the grid. The parties dispute the appropriate value to use for the calculation and whether to use the Environmental Protection Agency's (EPA) Emissions and Generation Resource Integrated Database (eGRID) model or the Northwest Power and Conservation Council (NWPCC) model. The parties also question when the company will adjust the emission reduction value going forward.

In its reply brief, NW Natural states that, although it prefers EPA's eGRID carbon values, it is willing to use the NWPCC values that Staff and CUB support. The parties point out that changing from eGrid to NWPCC requires modifying the incentive values. For example, to use the NWPCC value, the participant payment would need to increase to $60 per ton and the proposed program cap would need to decrease to 120,000 tons. NW Natural does not propose any changes to the $10 per ton company payment.

B. Opposition to Proposal

The participating parties—Staff, CUB, NWIGU, PGE, PacifiCorp, and NWEC—oppose the program as proposed.[2] The primary issue is cost. NWIGU, CUB, and Staff argue that the incentive payments and program costs are too high and the costs of the program should be subject to some form of an earnings test. PGE and PacifiCorp also contend that the program is in NW Natural's "ordinary course of business," and constitutes improper fuel switching.

1. *Incentives and Program Costs*

Staff, CUB, and NWIGU contend the overall program costs of $42.59 per ton of carbon are excessive. Staff estimates the program could cost customers over $100 million and raise monthly residential rates from $0.63 to $2.50, or 2.2 percent. Staff warns this high cost could hamper future carbon reduction proposals as this one project could amount to one-third of the cost cap in OAR 860-085-0700. Staff believes the risk to customers is

[2] Climate Solutions does not take a specific position on the program but provides background on SB 844, and generally wants a CHP program to succeed. ODOE intervened but did not file testimony or briefs.

disproportionate to the benefit they receive because, if the program fails, costs related to implementation will be assigned to customers, not shareholders.

With regard to incentives, Staff and CUB believe that the proposed $30 per ton payment to program participants is too high. Staff even questions the need for incentives when the ICF International study (that studied the CHP potential in Oregon) expects 64 MW of new CHP in Oregon by 2030 without incentives. Staff and CUB also recommend NW Natural use different methodologies to set program participant incentives. Staff believes an internal rate of return method is superior to NW Natural's simple payback period, and both Staff and CUB recommend NW Natural explore a reverse auction for the participant incentive because it would lower procurement costs. CUB also points out that the program stacks incentives funded by NW Natural's other customers, electric utility customers, and Oregon taxpayers, and notes that most of the company's customers will be required to fund the incentives in all three categories.

Staff, CUB, and NWIGU agree that the proposed company incentive of $10 per ton of carbon is too rich. They believe that a $5 per ton incentive is more appropriate for the first project. They state that SB 844 and our rules do not *require* an incentive payment to the utility as part of a project. NWIGU and Staff assert that the $10 per ton proposal is not supported by evidence in the record and was only chosen because it is the maximum amount the company could request. CUB and NWIGU also contend that any costs for implementing the program are fully recovered in rates as O&M CHP program costs.

2. *Benefits to Customers*

Staff and CUB state that the CHP program benefits are insufficient compared to program costs, comparing $6 million in benefits to $100 million in costs over a 10 year program. CUB and Staff also state that the 1.5 to 2 percent rate increase is unjustifiably high given the identified benefit.

CUB also believes that NW Natural's proposed program cap at 240,000 tons of reduced carbon leaves the program vulnerable to subscription by one large CHP project, such as a 45 MW project that could almost reach the $4.5 million per project, annual cap. CUB would prefer a diversity of smaller projects to reduce the risk and impact of a single failed project.

3. *Earnings Test*

The parties disagree on whether the CHP program should be subject to an earnings test.[3] NWIGU and Staff agree that the company incentive payments should not be included in

[3] NW Natural explains it is currently subject to two earnings tests. The traditional spring earnings test is part of all local distribution companies (LDC) PGA. The spring earnings test is based on the company's results of operations for the year, including any actual weighted average cost of gas (WACOG) gains or losses, and also including some revenue and expense adjustments. The test considers whether the company has earned above a level inclusive of a variable deadband over its authorized return on equity (ROE). The second earnings test has recently been established for NW Natural's environmental remediation deferred expenses. If the company is earning in excess of the authorized ROE level, then any environmental

an earnings test, as such treatment would reduce the company's incentive to invest in carbon reduction programs. They argue, however, that the remaining program costs should be subject to some form of an earnings test to protect ratepayers from additional costs of a voluntary program when the company is over earning.

CUB argues that both the participant incentive payments and the program costs should be subject to the PGA earnings tests and any earnings test associated with a deferral.

NW Natural opposes the imposition of any earnings tests, and states that it will not implement the CHP program with a required earnings test.

4. Statutory Intent and Fuel Switching

PGE and PacifiCorp state that the CHP program is not eligible under SB 844 because NW Natural has pursued CHP in the ordinary course of business. PGE states that NW Natural previously had a five year tariff option that offered customers bill credits to incentivize CHP development. PacifiCorp states that, if a program increases utility margin revenue, the utility has an ordinary course of business interest in pursuing the program and careful consideration should be given to the appropriate level of any additional incentive given to the utility. PacifiCorp concedes that NW Natural has proposed to return all margins back to customers, but still questions the incentive, as it is much larger than the margin revenue.

PGE and PacifiCorp also state that the proposal results in fuel switching by inappropriately incentivizing customers to switch from electric to natural gas service, and using ratepayer dollars to cause customers to switch. PGE states there are a growing number of electric technologies that would reduce emissions by displacing natural gas appliances at the point of use. PacifiCorp and PGE state that NW Natural's position here is inconsistent with docket UM 1565 where the company argued that no ratepayer money should be used to incentivize high efficiency electric heat pumps. PGE warns that the CHP program will reduce electric load and raise rates for electric customers. PGE compares this to direct access departing load, where the Commission mitigates the system impact with a transition adjustment paid by departing customers.

PGE also contends that, if ETO incentives are applied, they should be sourced from NW Natural customers, not from electric utility customers for electric energy efficiency. PGE believes this is a policy issue for the Commission to resolve.

C. Commission Resolution

We reject NW Natural's application. We concur with the parties that the company incentives, the CHP customer incentives, the overall cost of the proposed program, and the potential rate impacts of the proposed program are all too high. We expect the first-ever project to be developed under the voluntary emissions reduction program to

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expenses subject to amortization (beyond the credits for the tariff rider, insurance proceeds, and accrued insurance interest) are absorbed by the company up to its excess earnings.

effectively reduce carbon emissions at a reasonable cost. As proposed, this project does not do so.

Further, SB 844 mandates a utility to involve stakeholders as part of the program eligibility requirements, and we favor designs that have broad support from our Staff, customer groups, and other intervenors. We strongly encourage NW Natural to work more closely with stakeholders on future program designs.

IV. Guidance on Program Design

Should NW Natural seek to reapply for the approval of a CHP program, we offer the following guidance. We respond to the parties' arguments on three contested design elements and prescribe the following:

a. NW Natural must use the most accurate carbon emission reduction value available, and update the value regularly during any CHP project's life. We support use of the NWPCC model.

b. We will allow fuel switching. We agree with Staff, CUB, and NWIGU that SB 844 sets forth criteria for projects to reduce emissions, and some projects will reduce carbon emissions by using natural gas to displace a higher-carbon emitting fuel source.

c. We will allow use of ETO electricity funds to be used to support such projects.

We prescribe no other elements of an acceptable CHP program because there are potential tradeoffs between the other design elements. For example, whether a CHP program should be subject, in some degree, to an earnings test, depends upon other elements of the program's overall design to safeguard ratepayers.

We believe that there are multiple designs that could be acceptable, and will examine any future CHP proposal on a holistic basis and consider tradeoffs between elements to ensure a proper balance between program benefits and costs. Here is one example, of many possible acceptable CHP proposals, showing the potential tradeoffs between design elements:

- Inclusion of the three elements identified above
- Reduced utility incentive and reduced CHP participant incentive
- Lower cap on program costs and rate impacts
- The passing of all margin benefits to customers
- No required use of reverse auctions
- No required earnings test

We stress this is only one possible program design, and again emphasize that we will examine any proposal holistically to ensure it contains a proper balance between program benefits and costs.

V. ORDER

IT IS ORDERED that the Application for Approval of an Emission Reduction Program, filed by Northwest Natural Gas Company, dba NW Natural, is denied.

Made, entered, and effective MAR 3 0 2016.

John Savage	**Stephen M. Bloom**
Commissioner	Commissioner
	COMMISSIONER ACKERMAN WAS UNAVAILABLE FOR SIGNATURE
	Susan K. Ackerman
	Commissioner

PUBLIC UTILITY COMMISSION OF OREGON

A party may request rehearing or reconsideration of this order under ORS 756.561. A request for rehearing or reconsideration must be filed with the Commission within 60 days of the date of service of this order. The request must comply with the requirements in OAR 860-001-0720. A copy of the request must also be served on each party to the proceedings as provided in OAR 860-001-0180(2). A party may appeal this order by filing a petition for review with the Court of Appeals in compliance with ORS 183.480 through 183.484.