BEFORE THE PUBLIC UTILITY COMMISSION

OF OREGON

LC 79

In the Matter of NORTHWEST NATURAL GAS COMPANY DBA NW NATURAL, 2022 INTEGRATED RESOURCE PLAN.	COMMENTS OF THE ALLIANCE OF WESTERN ENERGY CONSUMERS

Introduction and Summary

The Alliance of Western Energy Consumers ("AWEC") appreciates the opportunity to provide comments on Northwest Natural Gas Company's ("NW Natural") 2022 Integrated Resource Plan (the "2022 IRP") filed on September 23, 2022, as amended October 21, 2022.

AWEC represents large energy consumers in the Pacific Northwest, including natural gas sales and transportation customers of NW Natural. Accordingly, AWEC is interested in ensuring that its members have access to reliable and competitively priced energy supplies and services and in promoting a healthy economy and environment in the Pacific Northwest. NW Natural's 2022 IRP action plan is the first IRP considering the implications of the Climate Protection Plan ("CPP") rules published by the Oregon Department of Environmental Quality ("DEQ").

In summary, AWEC recommends the Commission acknowledge the 2022 IRP Action Plan, subject to the following modifications and additions:

1. **Action Item 6 Modification:** *NW Natural will independently procure discrete transportation energy efficiency projects at a fixed rate equal to $14.00/dth, while continuing to develop a transportation energy efficiency program in collaboration with the ETO, AWEC, Staff and other interested parties.*

2. **Action Item 7 Modification:** *NW Natural will procure the maximum amount of CCIs for CPP compliance in each compliance year and will include CCIs as a compliance alternative in PLEXOS in future IRPs.*

3. **Proposed Action Item:** *NW Natural will develop a method to attribute carbon savings resulting from the CPP to transportation customers since the CPP compliance instruments are obtained on transportation customers' behalf.*

4. **Proposed Action Item:** *NW Natural will study the impact of weather variable loads and load variability on CPP compliance for each rate class in the next IRP.*

5. **Proposed Action Item:** *NW Natural will study the value of interruptible throughput in the next IRP.*

Background

The 2022 IRP is a change in the way that NW Natural has historically studied and planned on its system. In the past, the IRP has been focused on distribution investments and gas supply alternatives. The IRP has evaluated system pipeline constraints, through the Synergi model, and analyzed the least cost, least risk alternative for addressing the constraints. Following the enactment of the CPP regulations, the IRP has become more complicated. While distribution investments and gas supply alternatives are still a subject of the IRP, environmental compliance, including compliance for transportation customers, has been introduced as a new dimension into the IRP.

To consider environmental compliance alternatives under the CPP, as well as the Washington Climate Commitment Act, NW Natural has acquired and developed a PLEXOS production cost model, which evaluates least cost compliance strategies in a Monte Carlo simulation, evaluating the compliance strategies against several different future cases. While the PLEXOS model is complicated, the results are fairly straight-forward. NW Natural has concluded that it is most cost effective to maintain the status quo. That is, to continue to invest primarily in renewable natural gas ("RNG"), alongside its current energy efficiency and demand-side management programs, for CPP compliance.

Energy markets have been volatile, and customers are facing unprecedented increases in the cost of natural gas and other energy services. For customers dealing with challenging markets and extraordinary commodity prices, layering on dramatic rate increases through the implementation of the CPP is impacting the economy in the Northwest. Indeed, Columbia Steel Casting Company, a metal casting company that dates back more than a century, recently closed its doors and laid off more than 200 workers. The products made by this company will now be made in another state or country, likely with a higher carbon fuel mix, which is a step backward both for Oregon's economy and the environment.

While CPP compliance is necessary and the environmental objectives are important, further efforts need to be undertaken, both in consultation with the Commission and DEQ, to mitigate the major rate impacts that consumers are facing from the CPP. For purposes of this 2022 IRP, AWEC has identified a few key variables that should be further addressed, including the potential for transportation customer energy efficiency, the use of all available Community Climate Investments ("CCIs"), and further analysis of the impacts of weather sensitive costs. Going forward, however, efforts to refine the CPP rules to achieve the same environmental objectives, while providing more flexibility in achieving compliance, may be a worthwhile endeavor.

In addition to these concerns about the CPP, AWEC is also interested making sure the value and benefit of interruptible load requirements are understood in the context of the IRP and for rate-setting purposes. AWEC is also interested in ensuring that transportation customers are

receiving credit for the carbon emissions reductions acquired on their behalf for use in their own carbon compliance and reporting obligations.

Transportation Energy Efficiency (Action Item #6)

AWEC recommends that that Action Item #6 be modified as follows:

Action Item 6: *NW Natural will independently procure and fund discrete transportation energy efficiency projects at a fixed rate equal to $14.00/dth, while continuing to develop a long-term transportation energy efficiency program in collaboration with the ETO, AWEC, Staff and other interested parties.*

Transportation energy efficiency has the potential to be a cost-effective method for meeting a significant portion of NW Natural's CPP compliance targets. According to a 2015 Report by the Department of Energy,

> "there is potential to accelerate the rate of adopting energy efficient technologies and practices that could reduce energy consumption in the industrial sector by an additional 15 to 32 percent by 2025."[1]

Thus, according to this report, industrial energy efficiency has the potential to satisfy the majority of transportation customer compliance obligations for the first two or three compliance periods.

Notwithstanding this potential, NW Natural has not included any assumed transportation customers' energy efficiency procurement in the 2022 IRP CPP compliance plan. Rather, NW Natural is proposing to continue to study the potential for transportation energy efficiency and to continue stakeholder engagement in developing a working, long-term energy efficiency program that will address the unique circumstances of transportation customer gas requirements.

AWEC is concerned, however, because customers are facing real CPP compliance costs now, and there is no reason to delay cost effective carbon dioxide savings, which may be used for CPP compliance, for the sake of further studies. It is not necessary to conduct a conservation potential assessment ("CPA") to know that there are significant carbon dioxide savings opportunities that can be achieved through transportation customer energy efficiency. No systematic energy efficiency program has ever been deployed for transportation customers' loads. A CPA may provide some useful theoretical information. The information obtained, however, will be of minimal value in canvasing customers and actually developing a transportation energy efficiency program.

In its August 16, 2022 Memorandum to NW Natural supporting its study, AEG acknowledged that the Oregon Transportation CPA was done at a theoretical level. AEG stated:

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[1] US Department of Energy, *Barriers to Industrial Energy Efficiency, Report to Congress June 2015* at ii (Jun. 2015).

> "The study relied on the best available data from NW Natural and secondary sources, which did not include on-site assessments of transportation customer equipment efficiency or practices."[2]

Further, AEG noted that the majority of the transportation classes are made up of a small number of large customers, meaning that energy efficiency at any one customer could skew the results:

> "The potential presented in this memo represents expected levels using average assumptions across customers and equipment. However, because a small number of customers represent a majority of transportation customer consumption (the top 10% of the largest Oregon transportation customers make up roughly 76% of NW Natural Oregon transportation load), actual energy efficiency impacts may vary widely depending on whether these large customers choose to participate in potential programs and customer specific characteristics. As such, these results should be viewed as planning assumptions that are likely to differ in practice."[3]

Given the potential savings, NW Natural should be approaching its largest customers to develop discrete energy efficiency programs now. While a programmatic approach may be appropriate for the collection of smaller transportation customers, it is not necessary for large customers as those projects tend to be larger and more discrete in nature.

AWEC is supportive of undertaking continued dialogue with NW Natural and other stakeholders to develop a long-term transportation energy efficiency program. AWEC is concerned, however, that developing such a program is taking too much time, resulting in the loss of potential carbon dioxide savings. The potential for such a program has been under discussion for some time now, and AWEC presented a model energy efficiency program in Docket No. 2178. While there have been some discussions, those discussions have been at a high level and not resulted in a program. No docket has been opened to address transportation energy efficiency.

Given the progress of the stakeholder engagement to date, unless immediate action is taken, it is doubtful that any transportation energy efficiency program will be in place for the 2022-2024 CPP compliance window. Realistically, even if NW Natural were to open a docket today to implement a program, it would take months for approval and even longer to implement.

Given the high cost of compliance alternatives, it is in ratepayers interest for NW Natural to acquire as much cost-effective transportation energy efficiency as it possibly can. Given the unique nature of NW Natural's largest transportation customers, however, an avoided cost study or CPA is not necessary to understand what transportation energy efficiency is cost effective. Other than some minor distribution avoided costs for firm transportation customers, the only avoided costs for transportation energy efficiency is the avoided cost of CPP compliance. Thus,

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2 NW Natural Response to AWEC Data Request ("DR") 5, Attachment 2.

3 *Id.*

so long as the transportation energy efficiency is competitive with other compliance alternatives, such as RNG, NW Natural should acquire it.

The marginal cost of CPP compliance in this 2022 IRP is the cost of acquiring RNG. The reference cost for Tranche 1 RNG was $14.00/dth, escalating to $19.00/dth for Tranche 2 RNG.[4] Thus, any dth of industrial energy efficiency will eliminate the need to acquire RNG at those rates. Note that while CCI's are modeled as a last resort, they are expected to cost just $5.79/dth, and therefore not appropriately viewed as the marginal CPP compliance cost.

AWEC's Interim Proposal:

Given the urgency of meeting the 2022-2024 CPP compliance targets, AWEC recommends that NW Natural take action and do so rapidly. AWEC recommends that NW Natural begin independently acquiring discrete transportation energy efficiency projects, while a long-term program is being evaluated and developed. This action would ensure that new projects are implemented rapidly and contribute to CPP compliance.

For purposes of these interim acquisitions, AWEC recommends that NW Natural simply provide an incentive of $14.00/dth, equal to the reference case cost of Tranche 1 RNG, for all verifiable energy efficiency savings achieved by industrial customers. Providing this incentive as a fixed rate means the actual cost of a measure may be more or less than the amount of the incentive provided. This will provide customers certainty in the amount of funds that they can expect from their energy efficiency investments, and would hopefully result in rapid deployment of industrial energy efficiency. This also provides customers with the potential for using energy efficiency to offset other CPP compliance costs, which have resulted in large rate increases for transportation customers in the recent Schedule 171 tariff filings. For example, the CPP costs in NW Natural's 2022 Schedule 171 filing was a 12.6% rate increase for Schedule 32 interruptible industrial transportation customers, an amount above and beyond the base rate increase approved in UG 435, NW Natural's 2022 General Rate Case.

Community Climate Investments

AWEC recommends that that Action Item #7 be modified as follows:

Action Item 7: *NW Natural will procure the maximum amount of CCIs for CPP compliance in each compliance year and will include CCIs as a compliance alternative in PLEXOS in future IRPs.*

The reference case cost of CCI is assumed to be $5.79/dth,[5] relative to the cost of Tranche 1 RNG of $14.00/dth. All other things equal, CCIs are a more cost-effective means of CPP compliance than RNG, and therefore, it is prudent for NW Natural to acquire the maximum amount of allowable CCI investments in each year, before acquiring any RNG.

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4 2022 IRP at 217.

5 2022 IRP at 219, Table 6.7.

The 2022 IRP, however, models CCI's as a last resort acquisition, even though they are more cost effective than other alternatives. CCI's do not appear to be included as a supply alternative in the PLEXOS modeling.

While CCIs are less expensive, they are also more flexible, so NW Natural has adopted an approach that uses CCIs to balance its compliance obligations, in case of higher or lower than expected loads. In response to AWEC Data Request 8, NW Natural described that weather was a key reason that CCI's would be held in reserve and used as a last resort acquisition:

> "By far the biggest source of uncertainty of load in the near term is the weather experienced over the period covered in the Action Plan. If the 3 years covered by the CPP compliance period are colder than "expected" weather (noting that different than "expected" weather is not unexpected, and weather uncertainty is modeled explicitly and in detail in the Monte Carlo simulations that drive the Action Plan), relatively more CCIs would be needed. If warmer than expected weather is experienced there may be no need to procure CCIs to comply with the CPP's first compliance period (2022-2024)"

The variability of weather sensitive loads is a hidden cost of the CPP. NW Natural must plan its environmental compliance at certain load levels. Yet, NW Natural needs to also procure sufficient margin to ensure that it complies with the CPP even if loads end up being higher than expected. Thus, NW natural must over comply to satisfy the CPP requirements with a high degree of confidence, and in order to satisfy this margin, it is holding CCIs in reserve to be acquired if load conditions are unfavorable relative to the forecast.

While this approach may seem prudent, holding low cost CCIs in reserve as a buffer to manage variability in load results in higher CPP compliance costs for ratepayers. The cost effectiveness of this strategy, however, was not necessarily vetted or analyzed directly in the PLEXOS modeling in the 2022 IRP. Accordingly, in future IRP's AWEC recommends that CCI's be modeled directly in the PLEXOS model.

Attribution of Transportation Customer Carbon Savings

Proposed Action Item: *NW Natural will develop a method to attribute carbon savings resulting from the CPP to transportation customers.*

As a result of the CPP, NW Natural is now making carbon investments on behalf of transportation customers. These carbon investments are being paid for by transportation customers. Many transportation customers, however, have their own carbon reporting and compliance obligations. Absent a method to attribute carbon savings to transportation customers, these customers will not recognize the benefit of the carbon savings for their own reporting and compliance purposes.

For example, on March 21, 2022, the Securities and Exchange Commission ("SEC") released a proposed rule titled "The Enhancement and Standardization of Climate-Related Disclosures for Investors." Among other things, this new rule will require all SEC registrants to

disclose their Scope 1 and Scope 2 carbon emissions in their financial statements. While the rules are still outstanding, the proposal has encouraged many SEC registered companies to actively monitor and track their carbon emissions in preparation for the rule's implementation. Further, many large companies are otherwise already closely monitoring their own carbon emissions for purposes of meeting internal climate policies and objectives.

Under the current regulatory framework, however, there is no mechanism for attributing carbon savings resulting from the CPP to transportation customers, since those customers are not buying gas from NW Natural. If NW Natural is retiring Thermal Renewable Certificates on behalf of a transportation customer, which were paid for by the transportation customer, the customer currently has no way of knowing what carbon reductions were acquired on its behalf.

As an outgrowth of this IRP, AWEC requests that NW Natural develop a method to attribute carbon savings resulting from the CPP to transportation customers. Attributing carbon savings to transportation customers may just be a matter of reporting the carbon reductions to transportation customers, although there may be some complications with certain compliance instruments such as CCIs.

Weather and Load Variability

Proposed Action Item: *NW Natural will study the impact of weather variable loads and load variability on CPP compliance for each rate class in the next IRP.*

As discussed above, weather variability has the potential to result in the imposition of significant additional CPP costs on ratepayers. For example, recent cold weather events have resulted in some of the highest natural gas loads on record in the Northwest. As a result of the weather dependent loads, however, the cost of CPP compliance is much higher than it otherwise would be because NW Natural must over comply with the CPP in order to manage weather variability. Further, there is also the potential that loads will grow more than expected, which also requires NW Natural to over comply.

A challenging aspect of the CPP is that there is no banking of compliance instruments. Rather, compliance is measured over a three-year period, with no ability to bank or carry over compliance instruments into the next compliance period. If NW Natural is over complaint in one three-year period, ratepayers must pay for the cost of over compliance without getting a benefit towards future CPP compliance targets.

Given the way the stochastic modelling was performed it is difficult to understand the impact of weather variable loads and unexpected load growth on the overall cost of compliance. While the model considers various load levels, there are other variables that are also changing in each of the Monte Carlo simulation results, meaning it is impossible to isolate the additional cost caused by just load variability. Further, as noted, holding lower cost CCIs in reserve to manage weather variability also presents a cost, which is not discretely evaluated in the context of the PLEXOS modeling.

In addition, it is important to understand the impact of load and weather variability, not just for NW Natural's system as a whole, but also for individual rate classes. The costs associated with weather variability, for example, are primarily caused by residential and small commercial customer classes. Analyzing these factors by rate class will help inform how to allocate CPP costs to different customers classes in the context of general rate cases and other rate filings.

Accordingly, in future IRPs, AWEC recommends that specific sensitivities be conducted, at various heating degree day levels to isolate the impact of weather variability and load variability on CCI compliance costs. AWEC also recommends that these sensitives isolate the impact of load variability on individual customers classes, so that cost responsibility can be better understood in general rate cases.

Value of Interruptible Load

Proposed Action Item: *NW Natural will study the value of interruptible throughput in the next IRP.*

NW Natural does not consider interruptible customers' requirements when planning for and building its distribution system. Its distribution system is designed to meet design-day weather conditions, under the assumption that no service will be provided to interruptible customers on those days. As a result, NW Natural avoids significant capital investments on its system because of interruptible customers, which benefits all ratepayers through lower rates. For purposes of ratemaking, interruptible throughput is typically not considered in the design day demand used to allocate a portion of core distribution costs, resulting in interruptible customers paying rates that are lower than firm customers. Having a better understanding of the actual value of interruptible customer loads, however, will better inform the ratemaking used in ratemaking proceedings.

In response to AWEC Data Request 03, NW Natural confirmed that the peak load requirements of interruptible customers were not included in its peak day modeling for planning its system stating:

> "Interruptible sales and interruptible transportation demands are excluded from peak hour modeling, as these demand response loads are designed to help alleviate system needs during peak periods and NW Natural would call a demand response event (i.e., interrupt interruptible customers) under peak conditions."

While it is undisputed that interruptible customers provide value to the distribution system and other customers, the actual value of these interruptible customers has not been quantified. In AWEC Data Request 04, AWEC requested NW Natural perform a Synergi model simulation which included all interruptible load requirements. NW Natural responded that if interruptible customers were included in Synergi,

> "the model would not be able to solve (i.e., there would not be sufficient supplies to serve the demand)."

NW Natural noted that its system is not physically capable of serving interruptible customers during periods of peak demand stating,

> "[i]f we were to model with interruptible customers enabled, then the model would be assuming access to more gas supplies than the system can physically receive from NW Pipeline gate stations and storage assets."

NW Natural also acknowledged that major system upgrades would be required to serve interruptible customers on a firm basis, stating that

> "[t]o be able to serve all interruptible customers on a firm basis would require numerous system reinforcement projects throughout NW Natural's system."

While NW Natural was unable to evaluate the value of interruptible loads in its response, it is apparent that there is a massive value in avoiding the system capital investments that would be necessary to serve interruptible customer loads under design day weather conditions.

Given the implications of interruptible customers on the system, it is important in the IRP to understand what the actual costs and benefits are from having interruptible customers on NW Natural's system. If possible and time permitting, AWEC requests that NW Natural perform a preliminary evaluation of the system benefits of interruptible throughput in its reply comments, even if at a high level. Further, AWEC recommends that NW Natural commit to a full study of the value of interruptible throughput in its next IRP.

Conclusion

Thank you for the opportunity to provide these comments and we look forward to participating in the remainder of this docket.

Respectfully submitted,

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