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November 14, 2017

The Honorable Ken Helm, Chair, House Energy and Environment Committee
The Honorable Michael Dembrow, Chair, Senate Environment and Natural Resources Committee
The Honorable Lee Beyer, Chair, Senate Business and Transportation Committee

Oregon State Capitol
900 Court Street NE
Salem, OR 97301

Dear Senators Dembrow and Beyer and Representative Helm,

Thank you for the opportunity to comment on SB 1070. Environmental stewardship is one of NW Natural's core values and we fully support the development of policy that will tangibly reduce carbon emissions. We firmly believe that natural gas and our infrastructure will play a critical role in helping Oregon reach its ambitious carbon reduction goals. We also understand that to develop a carbon reduction policy that leaves no one behind requires careful assessment of where we are today, where we want to go, and the lowest cost path to achieve those emission reductions.

For context setting, it's important to note the use of natural gas in our customers' homes and businesses represents about 5 percent of Oregon's total greenhouse gas emissions.[1] While this is an efficient starting point, NW Natural has created its own carbon savings goal independent of the state's efforts to develop a cap and trade program. Our "Low Carbon Pathway" is a voluntary initiative that reaches up and down the natural gas value chain to identify and quantify methods of creating GHG savings.

These efforts extend beyond our business and fall into three main categories: a) reducing the carbon intensity of the product we deliver to customers; b) working with customers to innovate and use less of our product; and c) displacing higher carbon fuels with natural gas and renewable natural gas, especially in the heavy duty vehicle sector. Through this work, we have found that many of the activities open to the natural gas industry to reduce emissions are outside of a local distribution company's control. Some depend on actions taken by other actors in the value chain, such as gas producers, while still others depend on specific actions taken by our customers (to use our product efficiently and/or to displace higher carbon fuels). For this reason, a natural gas utility has unique compliance challenges.

[1] NW Natural's sales customers; ODEQ 2015 Preliminary Greenhouse Gas Inventory.

The way in which carbon policy is developed and implemented will have dramatic and long-lasting impacts on our customers, the communities we serve and the affordability of the energy system that is the backbone of our state.

Today, about 40 percent of Oregonians are low income and struggling with a housing affordability crisis. If done poorly, a cap and trade program would exacerbate the financial burden already felt by those most vulnerable among us. Consequently, this is a policy decision that should be addressed by the legislature and given the time and attention required to do it well.

For example, due to the obvious time constraints of a short session, it may be tempting to delegate difficult but critical decisions to agency rule-making rather than addressing them in legislation designed to ensure an equitable and affordable carbon reduction program. We believe the complexities of this issue, coupled with the constraints of the short session, create serious challenges for enactment of comprehensive legislation in 2018. However, in the interest of being a constructive participant in this process, we are outlining four recommendations for your consideration that address what we believe are the most important issues impacting our 650,000 Oregon customers:

I. Point of Regulation
II. Distribution of Freely Allocated Allowances
III. Funding Priorities
IV. Offsets

I. Point of Regulation

RECOMMENDATION:

The compliance obligation for the emissions associated with the direct use[2] of natural gas should be placed on the party that is in the best position to impact the reduction of those emissions.

NW Natural has no ability to impact the emissions associated with Transport customers. Therefore, the compliance obligation for "Transport" rate schedules should be assigned to the natural gas "marketers" who procure and sell the gas to these customers. (Under the current proposal, the 25,000 tonne/year threshold contained in the bill would not apply to natural gas marketers.)

[2] Direct use refers to natural gas that is used for heating and other applications on site – and not for generation of electricity in a power plant.

EXPLANATION FOR RECOMMENDATION:

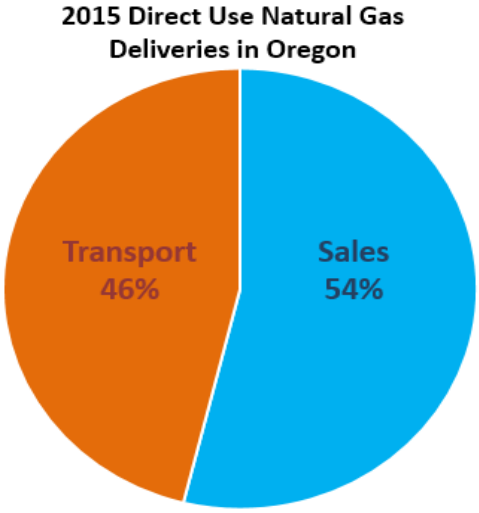
What are natural gas "sales" and "transport" customers?

Industrial and large commercial natural gas customers in Oregon have the option to purchase their own natural gas from third party suppliers called "marketers."[3] When a customer chooses a marketer to procure their gas, the natural gas utility has no control over purchasing the natural gas commodity for that customer, but merely provides "transport" services along the utility's pipeline infrastructure. Customers that choose this arrangement elect to pay marketers and their natural gas utility separately for the commodity and transport services, respectively. Natural gas "transport" customers are analogous to electricity customers that purchase their electricity from Electric Service Suppliers (ESS), while still paying the local utility for transmission and distribution charges.

Customers who pay the natural gas utility for a bundled service that includes the procurement and transportation of the natural gas commodity are on "sales" schedules and are referred to as sales customers.[4]

Natural gas transport load is significant

Transport customers are a sizable portion of emissions associated with the direct use of natural gas consumed in the state (and hence, a proportionally significant share of emissions from the sector).



[3] These customers could also choose to procure their own natural gas, even though in reality all NW Natural transport customers other than Portland General Electric use natural gas marketers to procure their gas rather than procuring it themselves.

[4] Note that residential and small commercial customers do not have the option to be on transportation schedules.

- In 2015, almost half (46%) of the natural gas that is attributed to the gas sector in Oregon's DEQ Greenhouse Gas Inventory is from transport schedules;
- NW Natural has 391 customers on transport schedules, all of whom use one of nine marketers to purchase and schedule their gas[5];
- Only 16 of these 391 customers would currently be responsible for their own compliance (their emissions are greater than 25,000 metric tons CO_2e per year);
- Roughly half of the natural gas delivered on NW Natural transport schedules (23.6% of Oregon's total direct use deliveries) is distributed to these 16 largest customers, while the other half (22.4%) is delivered to the other 375 transport customers.

Transport customers and emissions

The state's three natural gas utilities currently report emissions to the DEQ for all of the natural gas that moves through the pipeline system, including emissions associated with transport customers. While this may be the simplest way for the state to account for emissions from the natural gas sector, it does not align with what is appropriate for compliance under a greenhouse gas reduction policy.

As is described above, natural gas utilities have two primary mechanisms to reduce greenhouse gas emissions from the load they currently serve:

- Helping customers use less natural gas (i.e., energy efficiency), and
- Lowering the carbon intensity of the gas in their supply portfolio.

Under the current regulatory structure, neither of these options is available to natural gas utilities for the gas that is delivered on transport schedules.

This is because transport customers do not pay into and are not eligible for natural gas energy efficiency programs in Oregon, so neither NW Natural or the Energy Trust have a mechanism to incent transport customers to use less gas. Additionally, efforts by NW Natural to supply lower carbon intensity natural gas (such as renewable natural gas) will only help reduce emissions associated with the gas we buy for our sales customers, not transport customers. For example, if NW Natural were able to replace *all* of the natural gas we procure on behalf of our sales customers with renewable natural gas, we would still have a compliance obligation associated with transport customer emissions, despite the fact that the emissions from our utility supply have been driven down to zero.[6]

Given this dynamic, the compliance obligation for "transport" customers should be assigned to the gas marketer that procures the supply.

[5] With the exception of Portland General Electric for fueling their Beaver and Port Westward power plants.
[6] Or near zero levels

II. Distribution of Freely Allocated Allowances

RECOMMENDATION:

The legislation should direct DEQ to avoid the exclusive use of a fixed, historical baseline[7] in its allocation methodology to individual entities within the utility sector, as to not disproportionately reward customers of entities that were relatively high emitting during the baseline period at the expense of those that were relatively low emitting.

EXPLANATION FOR RECOMMENDATION:

Allocation of free allowances among covered entities matters

Choosing an emissions "baseline" period from which all sectors and entities will be allocated free allowances proportional to the reduction in the overall emissions cap (what we will call a "fixed baseline") has large implications on the distribution of costs and customer rates across entities in a way that leads to socially undesirable outcomes. For example, a fixed baseline established at a particular point in time harms energy providers with relatively low emissions during the baseline period – achieved either through prior adoption of emission reduction investments or through an inherently lower carbon intensity product. Conversely, that same methodology rewards entities that were relatively dirty in terms of emissions during the baseline period. Using a fixed, historical baseline in a cap and trade program will create a situation where the cleaner entities' customers will be required to purchase allowances from the dirtier entities' customers, with the cleaner entity unfairly subsidizing those compliance costs.

To illustrate this point, *we present a theoretical example provided in detail in the Appendix* to show how the allocation of free allowances matters - and how it can choose winners and losers in a way that is contrary to the goal of a cap and trade system designed to let the market determine the most cost effective and equitable way to reduce emissions.

Learnings from the Western Climate Initiative (WCI):

California's cap-and-trade policy establishes a total cap on the electric utility sector which decreases linearly at the same level as the overall cap. California's policy adjusts the percent of the electric utility sector cap allocated to each utility based on a number of criteria: the burden placed on ratepayers, the amount of energy efficiency incorporated, and prior investments to reduce emissions.[8] By modifying the percent allocated across time, this policy rewards both progressive and lower-emitting utilities, while penalizing dirtier and slower-adopting ones. In meeting their emission reduction goals through a declining cap, California's program keeps the distribution of costs to customers more equitable across the electric utilities in the state.

[7] Here a "historical baseline" is defined as setting the share of allowances from each emitter based upon their share of actual emissions at some point in the past.
[8] https://www.arb.ca.gov/regact/2010/capandtrade10/res1042app1.pdf

NW Natural believes that applying this logic toward Oregon's cap and trade regime represents a better approach than relying on a fixed, historical baseline. By adjusting free allocation to reflect both the carbon intensity of the utility and the voluntary actions already undertaken, the carbon policy would be more efficient at reducing emissions in an equitable and cost effective way. We believe if SB1070 adopted the same principles in allocating the total cap to the utility sector and to allocating free allowances to each entity in the utility sector, it would lead to a more equitable distribution of the costs and benefits of the cap and trade system to ratepayers.

III. Funding Priorities

RECOMMENDATION: The bill should be clear that proceeds from allowances freely allocated (or consigned) to entities in the utility sector flow back proportionally to the customers of that corresponding entity. The uses of these funds should be broadened to include GHG reductions strategies proposed by the utility under the oversight of the Oregon Public Utilities Commission.

EXPLANATION FOR RECOMMENDATION:

The bill as currently drafted does not make clear that funds from consignment are to flow back to the utility who received the consignment for use on programs that benefit customers. This should be clarified in the language of the legislation. The language also provides an overly restrictive list of activities that may be funded through the sale of allowances. The list, as provided in Section 13 of SB 1070, includes bill assistance, a non-volumetric climate credit, and other weatherization and energy efficiency programs. It is clear that a priority should be placed – as is done by this language – on ameliorating impacts to lower income customers. It is also true that driving additional energy efficiency will be a critical emissions reduction strategy for natural gas utilities. While these categories should be retained, a broader item should be added that would allow funding of: "Other projects and programs proposed by a utility to reduce greenhouse gas emissions as deemed appropriate by the Public Utility Commission of Oregon, in order to further the purposes of this bill."

This added category of expenditures would help place funding behind the law's focus: To drive down GHG emissions. Projects that could be funded through this language might include greater use of renewable natural gas on the utility system or driving methane emissions reductions from natural gas production. Under this suggested provision, all proposed projects and programs would be subject to the OPUC's review. The Commission, through its oversight and authority under this bill, would balance the important aims of driving emissions reductions and considering rate impacts to customers, especially those least able to cope with such increases.

IV. Offsets

RECOMMENDATION: A limit on the use of offsets should be no lower than the 8% cap currently contained in the bill – with a higher offset limit to further reduce compliance costs for customers without compromising GHG reductions. The bill should also include a clear mechanism to cost-effectively allow for the creation of new offset protocols that broaden the use of high quality offsets not currently contemplated in existing protocols.

EXPLANATION FOR RECOMMENDATION:

Offsets provide an important mechanism to hold down compliance costs for customers by providing reductions from non-capped sectors such as forestry and agriculture. NW Natural was the first stand-alone gas utility to offer an offset product, Smart Energy, for its customers. The company meets customer demand for our product by contracting with The Climate Trust to source high quality offsets from the agriculture sector. These offset projects, primarily located in the Pacific Northwest, drive credible GHG reductions that are verified and permanently retired. At the same time these regional offset projects help support our local economy and produce other non-GHG environmental benefits.

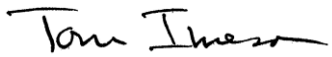
The Smart Energy program shows how the utility industry can drive real reductions in other sectors, be it agriculture or forestry. While NW Natural is most interested in capturing these GHG benefits for our customers to help keep compliance costs reasonable, it is possible that Oregon's carbon rich forests may eventually become a source of offsets for other states in a linked cap and trade program. This could drive investment from other states to help Oregon operate forests that are healthier and managed to optimize carbon capture.

Because the state cap and trade program must evolve over time, it is important that there be a simple and cost-effective process for creating new offset protocols that result in credible emissions reductions. The ability to bring in new emission reduction protocols may be of particular importance to the natural gas industry and to our customers. For example, it is possible that reductions of upstream methane emissions from outside of the region may best be allowed into the cap and trade system through a credible and carefully constructed protocol that provides credit for activities outside of a capped sector.

V. Conclusion

We reiterate our support for a sustainable climate policy that achieves tangible reductions at the lowest possible cost. In these comments, NW Natural has provided recommendations for improving SB 1070 on behalf of our customers in four areas of highest priority. These issues will have a significant and long-lasting impact on our customers and rather than leaving them to future rulemaking, we believe these are decisions that must be carefully considered and addressed by the legislature.

Sincerely,



Tom Imeson
Vice President of Public Affairs, NW Natural

cc: David Anderson, President & CEO, NW Natural

APPENDIX

Distribution of Freely Allocated Allowances: Theoretical Example

Below we present a theoretical example to show how the allocation of free allowances matters - and how it can choose winners and losers in a way that is contrary to the goal of a cap and trade system designed to let the market to determine the most cost effective and equitable way to reduce emissions

In this example there are only two emitters in the economy: Emitter A and Emitter B. Furthermore, they are identical in the year 2000 in the terms of costs, energy delivered, and greenhouse gas emissions. By 2015, Emitter A has invested to reduce emissions, while Emitter B has done nothing. At this point Emitter A has lower emissions than Emitter B due to its early actions to reduce emissions.

Subsequently, an emissions reduction policy is put in place at the end of 2015 to reduce societal emissions 60% relative to a 2015 baseline by 2030.

Year	**Emissions**		
	Emitter A	Emitter B	Total
2000	100	100	200
↓	Action	No Action	↓
2015	50	100	150
↓	**Society Calls for 60% Reduction in Emissions**		↓
2030	??	??	**60**

Additionally, assume both entities have the same two emissions reduction opportunities available to them with different costs per unit of emission reduction (to be incurred in each year):

Emission Reduction Activity	**Emissions Reduction From Activity Per Year**	**Cost Per Year**
1	Up to 70 units of emissions saved @	$1/Unit
2	Up to 20 units of emissions saved @	$5/Unit

Using this example, we consider two possible carbon policies; (1) an emissions reduction mandate and (2) a cap and trade carbon program.

Mandated Emission Reduction Example

Although SB 1070 is a cap and trade bill, we first consider a simpler policy that mandates each emitter to reduce emissions as an equivalent percentage of their 2015 baseline emission level. This is used to show that the idea of each emitting entity in the economy reducing emissions through time by the same percentage as the overall cap is not as equitable of an outcome as might be presumed. The mandated reduction example sets the table to examine the implications of fixing a baseline for the purpose of allocating free allowances in a cap and trade regime in the next section.

In this policy, since society has decided to reduce emissions by 60% from 2015 levels by 2030 it mandates that the two emitters in the economy each reduce their 2015 emissions by 60%. This requires Emitter A to reduce emissions by 30 units (to 20 units) by 2030 and Emitter B to reduce emissions by 60 units of emissions (to 40 units) by 2030:

Year	**Emissions**		
	Emitter A	Emitter B	Total
2000	100	100	200
↓	Action	No Action	↓
2015	50	100	150
↓	**Each Emitter Reduces Emissions by 60%**		↓
2030	**20**	**40**	**60**

While this policy leads to society achieving its goal of reducing emissions by 60% by 2030 it can hardly be viewed as an equitable or socially optimal way of achieving the goal since it requires Emitter A to reduce emissions more than Emitter B relative to the year they were identical (2000).[9]

Additionally, society is incurring more costs than is necessary.[10] Under this policy, Emitter A would exhaust all of the cheaper emission reductions available to it (70 units at $1/unit of reduction). However, Emitter A would still need to invest in 10 units of expensive annual emissions reductions (at $5/unit) to comply with the policy even though society has cheap emissions reductions still available to it through Emitter B. As such, the cleaner Emitter A is actually harmed relative to B under a 2015 baseline for no other reason than it undertook socially beneficial emissions reduction action *prior to the baseline period*.

It may seem in this example that the simple solution would be to set the baseline in 2000; however, the nuances of the real world prevent such a simple solution. In practice, any year chosen as the baseline creates relative winners and losers, punishing entities with lower emissions during the baseline period in a relative sense compared to entities with higher emissions during the baseline period.

[9] An 80% reduction from Emitter A and a 60% reduction from Emitter B relative to the year 2000, when they were identical entities.

[10] Society is incurring total emissions reductions costs of $180 when they can be achieved for $140.

Cap and Trade

Similarly, freely allocating emission allowances in a cap and trade program relative to a fixed baseline punishes the relatively clean entities during the baseline period and rewards the more emission intensive entities if revenues are returned back to the emitters based upon their allocation of free allowances. To demonstrate this, consider that free allocation of allowances (or consignment in the way SB 1070 is written) is determined by a historical 2015 baseline. In this case, in 2030 Emitter A receives 20 free allowances on consignment (1/3 of the total allocated) based upon the fact it accounted for 1/3 of society's emissions in 2015. Correspondingly, Emitter B receives 40 allowances on consignment in 2030 based upon its share of 2015 emissions (2/3). In this case it is presumed that the revenues from 20 allowances will be returned to Emitter A and the revenues from 40 allowances will be returned to Emitter B.

2030 Emission Allowances Allocation		
Emitter A	Emitter B	Total
20	40	60

Additionally, consider that the economy is linked to a broader cap and trade system and the price for allowances is $3/unit in this broader market. This market price assumption is realistic as the market price will be driven by the supply and demand for allowances, which are determined by the cost of alternative compliance options. Emitters will purchase (demand) allowances if the cost of reducing emissions is higher than the market price for allowances, and invest in emissions reductions that are cheaper than the market price for allowances.

Cap and Trade Outcome

Year	**Emissions**			**Net Costs**			**Energy Delivered**		**Rates (per unit of energy)**	
	Emitter A	Emitter B	Total	Emitter A	Emitter B	Total	Emitter A	Emitter B	Emitter A	Emitter B
2000	100	100	200	$100	$100	$200	50	50	$2	$2
2015	50	100	150	$150	$100	$250	50	50	$3	$2
2030	30	30	60	$200	$140	$340	50	50	**$4**	**$2.8**

In this scenario, Emitter B reduces emissions by 70 units relative to 2015 at a cost of $1/unit and incurs a total cost of reducing emissions of $70. Emitter B still emits 30 units, and needs to purchase allowances for these emissions at the total market price of allowances ($3/unit), at a total cost of $90. However, given that Emitter B is returned the revenues from the sale of the 40 allowances it was freely allocated on consignment it receives $120 in revenues and has net total costs in 2030 of $140.

Emitter A also reduces emissions by 70 total units (an incremental 20 units relative to 2015) at a total cost of $70 in 2030 ($50 of which it also incurred in 2015 due to its early emissions reductions action) and pays $90 for its 30 units of emissions through purchasing allowances. However, since Emitter A was given only 20 allowances freely for consignment it is only returned $60 in revenues such that its total net costs in 2030 are $200.

This means that if Emitters A and B are like utilities and pass their costs on to customers in the form of rates Emitter A's rates in 2030 would be $4.00/unit of energy delivered whereas Emitter B's would be much lower at $2.80/unit even though both Emitters would again be identical in terms of emissions and energy delivered (both have emissions of 30 units per year and have paid for 70 units of emissions reductions at $1/unit of emissions reduced).

In other words, even though total social costs of the policy are minimized under the cap and trade system, Emitter A's customers incur additional costs which are used to subsidize the customer rates of Emitter B due entirely to the allocation of free allowances for consignment.[11] This, again, occurs simply because of a baseline being set during a period when Emitter B had higher emissions than Emitter A. Choosing a set point in time for a baseline advantages the party that was dirtier during the baseline period at the expense of the one that was cleaner, which is not what is considered a market-driven outcome nor is it likely to align with societal goals (i.e. punishing those who took early action or are inherently cleaner to reward those who did not take socially beneficial action or are inherently dirtier).

Finally, while we may not think of Emitters A and B as competitors, in reality they could be (and in many instances in the state they are) and Emitter B would be given an unfair competitive advantage relative to Emitter A due to the methodology used to allocate allowances freely for consignment.

[11] Note that the outcome that cost is minimized under a cap and trade system is only true if a number of conditions (most of which do not hold in reality in Oregon) are met. See *The Effect of Allowance Allocations on Cap-and Trade System Performance* by Hahn and Stavins at https://www.econstor.eu/bitstream/10419/43551/1/640589154.pdf