

Angus Duncan Duncan

Please see my comment letter, attached.

angus duncan
2373 nw johnson street
portland, or 97210

October 9, 2020

Laura Watson, Director
Washington Department of Ecology
300 Desmond Drive SE
Lacey, WA 98503

Submitted via Ecology's web portal and email to laura.watson@ecy.wa.gov

Re: Comments on the Draft Second Supplemental Environmental Impact Statement for Northwest Innovation Works' Methanol Refinery and Export Terminal.

Director Watson:

I am writing to dispute the energy supply and demand market arguments and conclusions put forward by the Northwest Innovation Works (NWIW) in support of its proposal for a gas-to-methanol refinery at Kalama, WA.

Generally arguments for substituting lower-carbon fossil fuel-based energy projects only have merit when they are positioned in a narrow enough context. Thus the emergence of low-cost fracked gas supplies accelerated the termination of the country's already aging coal generation fleet, much of it already superannuated and due for retirement. While this temporarily flattened the curve of greenhouse gas (GHG) emissions in the utility sector, it did so at the grievous price of locking many US utilities into a new generation of gas combustion turbines. That new capital investment in gas-fired power facilities will have a projected operating and cost-recovery lifetime of 30 to 40 years, resulting in either millions of dollars of stranded assets, or additional decades of fossil-based GHG emissions.

Likewise substituting lower-carbon methanol for a higher-carbon-content product in China will enable and extend that country's reliance on methanol in its energy mix. The effect of the exports from this single plant will be incremental and negligible globally -- although not for Washington's efforts to meet its state-level goals -- but the cumulative effect of many such decisions is continued dependence on fossil fuels that will persist for decades and lock in more resistance to meeting global GHG emissions reductions.

There is also an upstream effect of the proposed Kalama plant on fossil fuel production in the United States. Every increase in market pull for additional wellhead gas will support such production by spreading overhead costs across more therms of gas. When gas and oil are co-produced, as they are in many well fields, the economics of oil production are also strengthened at the margin for each additional therm of gas byproduct pumped and sold.

The first internal flaw in the logic of building new lower-carbon energy resources to displace older higher-carbon such resources is the inference that we can build our way out our dependence on fossil fuels by locking it in for another 40 years. But the next several decades will determine whether, if we

succeed or fail in arresting and reversing the GHG emissions curve, we will have a habitable planet at the end of that time.

The second internal flaw is the implicit presumption that today's fuel and technology supply curves can be projected in linear fashion into the future. The likelihood that methanol exports will continue for the next several decades, supported by future market clearing prices comparable to today's, is a far less likely future than is one in which reliance on methanol, and fossil fuels generally, is disrupted by new low and zero carbon energy technologies. We have seen such disruptions play out with particular vigor in recent decades: low-cost energy efficiency displacing central station power plants; fracking technology dropping gas prices by $\geq 75\%$ in ten years; wind, solar and battery technology cost declines of $\pm 80\%$ in the same decade; decline of coal from $>50\%$ of US generation to $<25\%$ in 15 years; etc.

But every existing fossil-based facility with unrecovered capital costs and forward profit potential will be driven by those factors to resist termination.

These documented effects notwithstanding, we might hesitate to intervene in a private company putting its capital at risk in this plant but for the externalized costs such investments impose on the rest of us. We have experienced some of these effects with particular severity in the Northwest the last several years: heat, drought, forest wildfire, declining snowpack, with their attendant regional economic and public health effects. Ecology might note my address above – I'm writing from across the river in Oregon – but as your Governor has so eloquently argued on both regional and national stages, the effects of decisions like these cross rivers, continents and oceans. Oregonians will suffer from the externalized costs of permitting this methanol plant (as citizens of Washington will if Oregon and FERC permit a proposed LNG export facility in Coos Bay, Oregon).

If we wish to attenuate these effects in this country, we need a carbon cap more inclusive nationally than Washington's very admirable Clean Energy Transformation Act (CETA) which, however, fails to restrain the large step backwards that this NWIW facility represents.

If we wish to reach across national borders to encourage GHG limitations globally, we can return to the Paris Accord and follow it up with trade and other limitations on countries that fail to limit and reduce their emissions.

Allowing this facility to proceed to construction and operations would proceed in the opposite direction entirely, to the discredit of the State of Washington.

Sincerely,

Angus Duncan

(former) Chair, Oregon Global Warming Commission

(former) Chair, Northwest Conservation and Power Planning Council

(former) Director of Energy Policy, US Department of Transportation