What NWIW wants you to believe and the reality- Diane L. Dick

The project will not cause significant adverse impacts to greenhouse gas emissions.

FEIS 4.6 Unavoidable Significant Adverse Impacts

The proposed project, with either Technology Alternative and either Marine Terminal Alternative, would not result in unavoidable significant adverse impacts related to air quality or GHG emissions.

This is straight from the environmental impact statement- **no significant adverse impacts to air quality or greenhouse gas emissions**. Yet in the same chapter of the FEIS on page 4-19 and Table 4-4, NWIW admits in using the best process, ULE, operations of the facility alone will directly emit 975,000 metric tonnes of CO2e annually. Additionally to operate, "the 100 megawatts of purchased electricity for the ULE Alternative would result in about 266,000 tonnes of CO₂e annually." (The purchased power GHG emissions could be substantially higher given the FEIS states their own generation of a similar amount of power will produce 421,000 metric tonnes CO2e.) FEIS also estimates 3,900 tonnes CO2e from associated vessel emissions within Washington waters.

At a minimum, NWIW admits their refinery will produce about 1,245,000 metric tonnes CO2e annually and with a straight face calls this insignificant. This amount would rank it among the top 10 GHG single emitters in the state. According to the most recent state GHG emissions inventory Washington produced 94.4 million metric tons of CO2e in 2013. <u>https://ecology.wa.gov/Research-Data/Scientific-reports/Statewide-greenhouse-gas-inventory</u> NWIW Kalama would increase the state's GHG emissions by 1.3 percent, a significant amount.

According to the Stockholm Environment Institute discussion brief on the NWIW Kalama methanol refinery, the project GHG emissions could go as high as 7 million metric tonnes CO2e if including 3% methane leakage rates over a 20 year global warming potential for the delivery of the fracked gas feedstock to the refinery. https://www.sei.org/about-sei/press-room/press-releases/kalama-ghg-emissions/

FACT- NWIW Kalama methanol refinery GHG impacts are significant and adverse.

The project would replace methanol made from coal.

FEIS 1.1.3 Objectives NWIW and the Port are pursuing the proposed project with the stated goal of reducing greenhouse gas (GHG) emissions globally by producing methanol from natural gas rather than coal.... Increased demand for methanol in Asia is being met primarily by the construction of facilities in China that manufacture methanol from coal, which emits very high levels of GHG and generates toxic byproducts and wastes (Yang 2012).

According to the industry organization Methanol Institute, "the typical feedstock used in the production of methanol is natural gas." <u>https://www.methanol.org/feedstocksupply/</u>

According to a March 12, 2016 story in The Daily News, Longview, "Vee Godley, president of Northwest Innovation, said his company's projects would cut global greenhouse gas emissions by replacing coal-based olefins with natural-gas based olefins.

There are about 160 coal-to-methanol plants in China, and 15 to 20 more are proposed, Godley said. According to his Chinese partners, some of those plants may not be built if Northwest Innovation builds its three plants here. However, Godley said he doesn't know if any coal-based methanol plants would actually shut down as a result of his projects."

https://tdn.com/news/local/unlike-tacoma-project-kalama-methanol-plant-gets-warmerreception/article_55711e3a-92de-52af-ab1c-15b84669dc05.html

FACT- Coal is not the preferred or a widely used feedstock for methanol. There is no evidence Kalama methanol would replace coal-based methanol production.

NWIW Kalama methanol will be used as a feedstock for olefins to make plastic.

FEIS 2.1 The methanol is expected to be used for the production of olefins, which are the primary components in the production of consumer products, such as medical devices, glasses, contact lenses, recreational equipment, clothing, cell phones, furniture, and many other products.

While the FEIS and NWIW promotional literature have consistently from the beginning insisted the methanol produced will be used to make plastic, the company and leadership have pursued and promoted the alternate use of methanol as a fuel.

The following excerpt from a news release on NWIW's website describes their partial sponsorship of a workshop promoting methanol as an energy source.

Stanford University (July 31 – August 1, 2017) – The "Opportunities and Challenges for Methanol as a Global Liquid Energy Carrier" workshop was held at Stanford University and hosted by the Natural Gas Initiative over two days from July 31 to August 1t. The workshop was partly sponsored by Northwest Innovation Works (NWIW)

The workshop closed with an actionable pathway for leveraging methanol as a cleaner energy source for the future. Methanol will be made from cleaner sources today, and eventually sustainable sources in the coming years. It is a high energy storage medium that provides the essential missing piece of the puzzle for our energy system to integrate increasing amounts of renewable power towards a fully renewable energy system.

https://nwinnovationworks.com/news/sowing-seeds-cleaner-future.html

Further, from a Sightline Institute report-

Even the project backers acknowledge that the Kalama plant's methanol will wind up in Chinese fuel tanks. An April 2017 China Daily article quotes We Lebin, the chairman of the Kalama project's parent company, saying that the plant's output could "<u>replace diesel, coal and gas with methanol to power vehicles</u>." Lebin doubled down on the claims in a December 2017 Reuters article, saying that, "<u>[the company] also wants to drive use of</u> <u>methanol as a transportation fuel for cars and ships</u>." https://www.sightline.org/2018/02/14/how-northwest-methanol-is-likely-intended-for-chinas-gas-tanks/

As a fuel, according to the EPA, when combusted, methanol produces about 9 pounds CO2e per gallon, about half as much as gasoline. The refinery capacity would be 10,000 tonnes per day. At 6.63 pounds per gallon of methanol, or about 3.3 million gallons per day, if combusted as fuel, the refinery's methanol could produce about 30 million pounds, or 13,500 metric tonnes CO2e/day, or about 5 million tonnes CO2e per year.

FACT- NWIW Kalama methanol will more likely be used as fuel, a fossil fuel with CO2e emissions of 5 million metric tonnes per year.