Double Green Bridge

NW INNOVATION WORKS

GAS TO METHANOL FACILITY AT THE PORT OF ST. HELENS

February 2016

JOBS AND ECONOMIC BENEFITS

- Northwest Innovation Works (NWIW) will invest at least $1.8 billion in its facility at an 83-acre site at Port Westward to convert 10,000 tons of natural gas to methanol every day. The methanol will be exported by ship to Asia for use as feedstock for the production of olefins.
- The facility will support up to 1,000 construction jobs over a multi-year construction period.
- Approximately 200 long-term, family-wage jobs will be created to support plant operations.

METHANOL AND OLEFINS

- Methanol is a light and colorless liquid that evaporates in air.
- Methanol is water soluble, biodegradable and non-carcinogenic.
- Olefins are key to making many products used every day in the United States and around the world, including medical supplies, safety and industrial equipment, smartphones, kayaks and clothing.

REDUCED EMISSIONS AND CLEANER PRODUCTION

- Current state-of-the-art facilities reduce emissions by up to 70 percent compared to coal. NWIW takes a next-generation step with ultra-low emission (ULE) technology that will reduce emissions an additional 75 percent.
- For the first time, ULE technology will be used at industrial scale to further reduce emissions.
- Emission data and associated air permits will be developed as part of the regulatory process.

WATER AND ELECTRICITY USE

- All of the projected water use falls within existing water rights for the site. Water will be used in both the production and cooling processes.
  - Most of the water will be used for cooling during the reforming process, with 81 percent of the water returned to the atmosphere as water vapor.
  - Process wastewater will be treated and reused in the plant's processes and not directly discharged into the environment. Treated cooling water will be discharged to meet current permit requirements and environmental regulations.
- Specific water intake requirements have not yet been determined for this facility. Intake is likely to be around 3,600 gallons per minute, which is a small percent of the river's flow and well within the Port's water rights.
- Estimated maximum electrical load is up to 250 megawatts (MW), with average use of 200 MW.

THE METHANOL PRODUCTION PROCESS