

PUGET SOUND ENERGY LNG FACILITY



PSE LNG Facility Location



The information in this brochure, as well as links to all supporting data, can be found on our website at portoftacoma.com/lng.

portoftacoma.com/lng



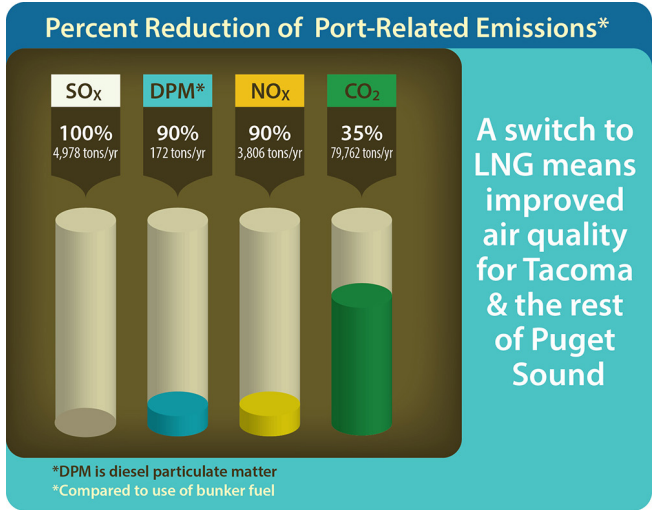
AIR QUALITY
WATER QUALITY
SAFETY
LOCAL USES

Puget Sound Energy is building a liquefied natural gas (LNG) facility at the Port of Tacoma

The facility will provide local transportation companies, including TOTE Maritime Alaska vessels, with a cleaner fuel alternative. It also will provide residential and commercial customers with natural gas reserves to maintain dependable service on the coldest days of the year. Link to list of required permits and their status is available on our website.

AIR QUALITY BENEFITS

Most cargo ships today run on diesel or bunker fuel. Our most recent emissions inventory showed that, while ship-related emissions have dropped, they still accounted for 63 percent of the maritime-related diesel particulate matter emissions. Our 2008 Northwest Ports Clean Air Strategy set ambitious goals for reducing emissions from ships and other port-related sources. The first step for ships was a move to lower-sulfur fuels. TOTE’s switch to LNG will reduce sulphur (SOx) emissions by 100 percent, harmful diesel particulate matter by more than 90 percent, nitric oxide and nitrogen dioxide (NOx) emissions by 90 percent and carbon dioxide (CO2) emissions by 35 percent.

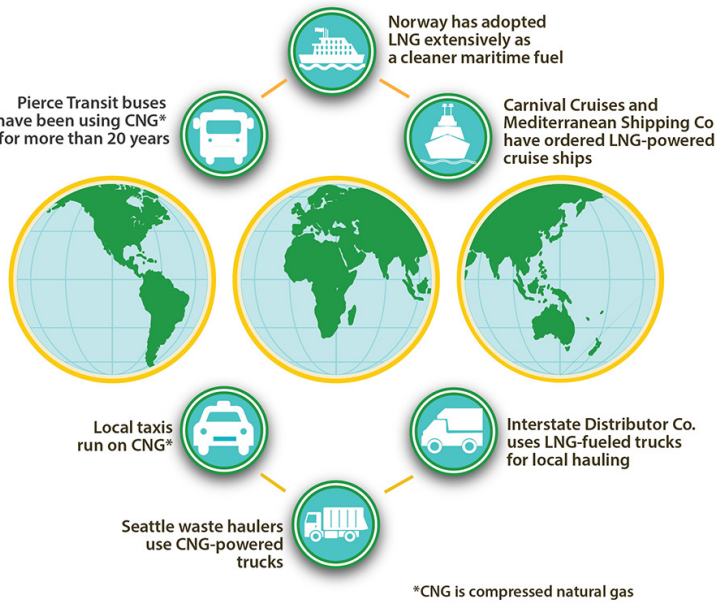


LNG is not a perfect solution, but it’s a proven step in the right direction. We should continue to explore what we can do locally and globally to protect human health and reduce climate change. We envision a day when vehicles run quickly and efficiently on fossil fuel-free power, but that isn’t possible yet. Until then, LNG offers a cleaner, safer alternative to diesel, which the American Lung Association says can aggravate respiratory and cardiovascular disease, cause chronic bronchitis, asthma, lung inflammation and emphysema, and lead to cancer.

LNG, and natural gas in general, are used regularly in transportation locally and internationally as a cleaner-burning fuel source. The U.S. Department of Energy forecasts demand for LNG to grow.

- Pierce Transit buses have run on compressed natural gas (CNG) for years.
- Seattle-Tacoma International Airport uses CNG shuttle vans to move people between the terminal and rental car facility.
- City of Seattle waste haulers (Recology CleanScapes, Republic Services) are required to use CNG trucks, and the City of Tacoma has ordered CNG trucks.

- Yellow Cab, Eastside for Hire and other taxis run on CNG.
- Washington State Ferries is considering LNG.
- Mediterranean Shipping Company and Carnival Cruises have ordered LNG-powered cruise ships.
- Norway has adopted LNG extensively as a cleaner maritime fuel.
- Puget Sound Clean Air Agency partnered with Interstate Distributor Co. to replace 10 heavy-duty trucks with LNG-fueled trucks for local hauling.



WATER QUALITY BENEFITS

PSE’s LNG facility will have no adverse impact on groundwater or Commencement Bay. In fact, it will reduce the potential for harmful spills and stormwater pollution.

Ships typically are fueled by bunker barge. The barge comes beside the ship and the crew deploys booms in the unlikely event of a spill as they carefully fuel the ship because diesel can pollute our waters. If LNG were to spill during fueling, however, it would turn into a vapor that dissipates if exposed to air. It would have no lasting effect on our waterways or marine life.

Pursuant to permit approvals, PSE also will treat nearly 100 percent of the stormwater on the site before it enters the bay. That wouldn’t happen if the land were to remain vacant. Prior to development, the site did not have a stormwater treatment system.

While the facility will be close to the contaminated former Occidental Chemical site, PSE is not building over the contamination plume, as verified by the state Department of Ecology. The LNG facility will not affect groundwater.

SAFETY

The facility is required to undergo environmental review and receive permits and approvals from several local, state and federal agencies. More than two dozen permits come from the City of Tacoma. You can find the status of those permits by clicking on the Current Development Permit Statuses header at the top of the City’s project permit page.

Federal standards require the facility to be designed and built to ensure that a spill or fire would have no offsite impacts.

Spill and fire scenarios in the environmental review used methodologies and computational models prescribed by the Pipeline and Hazardous Materials Safety Administration and approved on similar facilities. The modeling conclusively demonstrates that exclusion zones defined by federal regulation 49 CFR. § 193.2059 and, by reference NFPA 59A, remain within the site. You can download all of the Safety Modeling Records from the City of Tacoma’s website.

PSE’s tank will be sited in an industrially zoned area to support maritime users. Here are examples of other LNG facilities and their distance from residential areas.

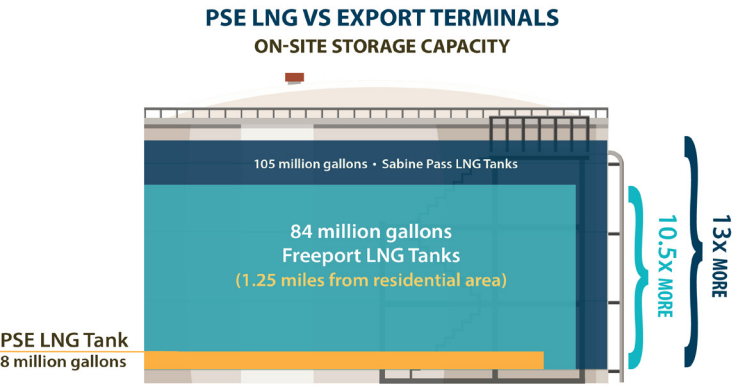


Federal seismic requirements for Puget Sound Energy’s tank design and construction are more rigorous than for bridges and overpasses. Construction of the facility is required to exceed the standard to withstand an earthquake expected every 2,450 years with no loss of LNG, compared to bridges and overpasses that are built to withstand 1,000-year earthquakes.

PSE has agreed to contribute money to help Tacoma Fire Department reopen a fire station on the Blair-Hylebos Peninsula by the time the LNG facility is operational. This station will be in addition to those located in Northeast Tacoma and Fife, benefiting the entire community. Without the project, the station would remain closed.

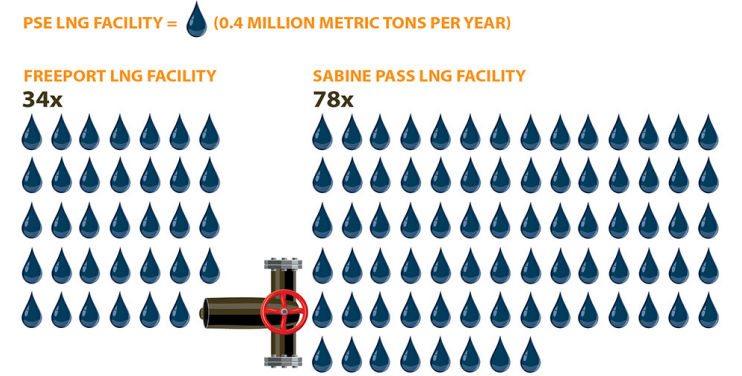
LOCAL USES

Puget Sound Energy’s LNG facility will be used to fuel ships and provide natural gas to residential and commercial customers during peak cold weather demands. It will not be used for exports.



The facility is too small to produce enough LNG for export. After TOTE’s use is taken into account, it would take six months to fill a small, 90,000-cubic-meter tanker and more than a year and a half to fill a 220,000-cubic-meter Q-Max LNG carrier. A typical LNG carrier load and unload takes about a week.

YEARLY PRODUCTION CAPACITY



PSE’s facility will produce up to 0.4 million metric tons per year. Here are comparisons to a few LNG export facilities in the U.S.:

- Freeport LNG Liquefaction and Export Project: 13.9 metric tons per annum (mpta) of liquefaction, which is 34 times greater than PSE’s production
- Sabine Pass Liquefaction Facilities: 31.5 mpta of liquefaction, which is 78 times greater than PSE’s production

No infrastructure is in place, proposed or permitted to support exporting. Exporting also is not allowed under the property lease.

PSE’s tank will hold 8 million gallons of LNG. Some people have tried to compare it to the capacity of the Tacoma Dome, but the dome would hold about 20 times the capacity of the tank. The Tacoma Dome is 530 feet in diameter and 152 feet tall. PSE’s LNG tank will be about 140 feet in diameter and 150 feet tall at its highest point.