RedLineTacoma.org



Puget Sound Energy LLC proposed Tacoma LNG Storage Tank/Production Facility

Puget Sound Energy (PSE) is a Bellevue-based Australian-owned for profit energy utility. PSE's owner, the Macquarie Group, is known for high margins. The Australian media calls the group "The Millionaire Factory."

Puget Sound Energy wants to build a 140-foot, 8-million-gallon liquefied natural gas (LNG) storage tank with production capability of 500,000 gallons of LNG per day, operating 24/7. PSE has never built a gas liquefaction facility.

What's LNG? LNG is fracked natural gas (methane) cooled to -260 degrees Fahrenheit (°F) to reach the liquid state. Other chemicals on site for use in the process (4,500 gallons each): Propane, Isopentane and Ethylene.

What's PSE's LNG history? PSE previously leased LNG storage at Williams Northwest Pipeline's LNG plant in Plymouth, WA. That facility's 2014 explosion injured 5 workers and forced evacuations within a 2 mile radius. The Plymouth LNG still only operates at half capacity.

Why do I care about PSE's possible LNG facility?

 LNG facilities need to be at least 3 miles from civilians, according to international guidelines.

- · Significant risk to nearby workers, residents in Northeast Tacoma and Fife, as well as people locked up in the ICE Detention Center and the Pioneer Re-entry House.
- PSE is trying to make rate payers pay for the gas facility used mostly by TOTE. UTC docket #151663.
- Considerable energy use and toxic air emissions. Greenhouse gases are estimated double those of the new Port of Tacoma master policy guidelines.
- Liability insurance does not cover natural disasters. PSE can walk away and leave the community to deal with the aftermath caused by LNG during earthquake, lahar, tsunami or floods.

Where do things stand now?

- The city of Tacoma is refusing to issue a supplemental EIS, even though the scope of the project has changed drastically.
- The Puyallup Tribe has appealed the shoreline and Army Corps of Engineers permits and challenged conclusions in the Final Environmental Impact Statement (FEIS) about contamination and harm to habitat resulting from construction and operation.
- PSE refused to release safety data even after the Pierce County Superior Court ordered the public documents to be released to the public twice already. Appeal hearings are expected soon.

Take Action NOW See inside for more information. Learn what you can do to stop PS

Learn what you can do to stop PSE LNG

LNG: CLIMATE CHANGE

Methane is the primary component of natural gas.

When leaked into our air, methane absorbs the sun's heat, warming the atmosphere.

Methane is 84 times more potent than CO_2 in the short term.

"By emitting just a little bit of methane, mankind is greatly accelerating the rate of climatic change."

-Steve Hamburg, Chief Scientist, Environmental Defense Fund

Source: https://www.edf.org/methane-other-important-greenhouse-gas

There's nothing natural about natural gas.



At least part of the gas processed at PSE's LNG facility would be fracked gas.

Hydraulic fracturing (fracking) is an extraction method used to obtain gas and oil from the earth's shale rock by injecting a high-pressure mixture of water, sand and chemicals. The process contaminates drinking water, triggers earthquakes, generates air pollution and contributes to climate change through greenhouse gas emissions.

Download more fracking information: redlinetacoma.org/download

PSE LNG poses significant risks to environment

By Steven Storms

This chart may explain the calculations of the global contributions of the LNG plant. If all the production is burned as fuel, the CO_2 equivalent is higher than using diesel when you consider the methane leaks from the fracking wells. I showed both the 20 and 100 year impact of the 1.5% methane leaks from the fracking wells. The difference is that methane is 25 times worse than CO_2 as a greenhouse gas over 100 years and 85 times worse on a 20 year view.

Note 1. Some estimates have the leakage as high as 4% which would drastically increase the emissions.

Note 2. For every ton of CO_2 released, we lose 32 square feet of sea ice - 1 million tons/year would be 32 million square feet or 735 acres per year.

Steven Storms is a retired Chemical Engineer and PE. He has more than 40 years experience in the energy and environmental field. He is a past Chairman of the Puget Sound American Institute of Chemical Engineers. He is also past Chairman of the US Conference Board Council of Competitive Intelligence and was on the Board of Directors of the Strategic and Competitive Intelligence Professionals (SCIP) as the Ethics Chairman.



Global CO₂ Emissions from LNG Plant Fuel Tons per Year - Assumes 1.5% leakage

Global CO₂ Emissions from LNG Plant Fuel Tons per Year - Assumes 4.0% leakage

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Questions about LNG in Tacoma? Visit www.redlinetacoma.org

green•wash /ˈɡrēnˌwäSH,-ˌwôSH/

noun: greenwashing DEFINITION: disinformation disseminated by an organization so as to present an environmentally responsible public image.¹

Why is greenwashing an issue?

Greenwashing is bad for the environment. It encourages consumers and communities to do the opposite of what's actually good for the environment. People want to make sound decisions and support businesses that are doing right by the environment. That's why it is damaging when a company falsely claims to be green just to push its agenda.

Don't become a victim of greenwashing! **For more information:** www.stopgreenwash.org www.greenwashingindex.com wikipedia.org/wiki/Greenwashing

Download more info about greenwashing at redlinetacoma.org/download

What can I do to fight PSE LNG?



Donate: Donate to help support educational and legal efforts: redlinetacoma.org/donate

- 1. Get educated: redlinetacoma.org
- 2. Demand that the Federal Energy Regulatory Commission (FERC) and Department of Ecology take control of the permitting process
- 3. Push for a Supplemental Environmental Impact Statement (SEIS)
- 4. Take action:
 - ➤ Share info with everyone you know
 - ► Write letters to city officials
 - ► Attend City Council meetings
 - ➤ Write letters to the editor
 - ► Participate in NO LNG actions
- 5. Join the Facebook group: RedLine Tacoma Community Forum
- 6. Schedule an LNG presentation for your group. Email redlinetacoma@gmail.com

PSE's LNG facility would lock citizens into 50 years of burning fracked gas and accelerate climate change while exposing our population to carcinogens and explosion dangers.

In addition to physical dangers, PSE is demanding the public pay for 43% of the capital costs (\$134 million before any cost overruns) while the CEO of PSE's Australian owner made \$18 million in 2016.

On behalf of our community, RedLine Tacoma demands our questions to be answered with facts by independent professionals and before PSE starts building on an existing Superfund site still too polluted and posing real dangers to wildlife, the Salish Sea and our urban center.

Since the release of the project's Final Environmental Impact Statement (FEIS), the project has changed substantially. The City of Tacoma lack the impartiality to fulfill the obligations of a neutral SEPA lead agency.



Potential Air Emissions From PSE's Tacoma LNG Facility

NOx	13.8 tons per year
СО	20.1 tons per year
SO2	5.5 tons per year
PM10	1.03 tons per year
PM2.5	1.03 tons per year
Volatile Organic Comp.	85.7 tons per year
Sulfuric Acid	0.27 tons per year
Toxic Air Pollutants	39.6 tons per year
Hazardous Air Pollutants	0.38 tons per year
Green House Gases	20,751 tons per year

Source:

Puget Sound Energy Liquefied Natural Gas (LNG) Facility Info Compiled by Wilma Subra Online at: http://redlinetacoma.org/subralng

NOT LOCAL. NOT SAFE. NOT CLEAN.

1 LNG Tank =	LNG
	When expanded, the LNG in PSE's Tacoma LNG tank would fill the Tacoma Dome more than 30 times.
https://en.wikipedia.org/wiki/Liquefied_natural_gas (accessed Septer	mber 24, 2016)