

December 13, 2016

TO:

Marilyn Strickland, Mayor of Tacoma
Anders Ibsen, Tacoma City Council Member, Position 1
Robert Thom, Tacoma City Council Member, Position 2
Keith Blocker, Tacoma City Council Member, Position 3
Marty Campbell, Tacoma City Council Member, Position 4
Joe Lonergan, Tacoma City Council Member, Position 5
Victoria Woodards, Tacoma City Council Member, Position 6
Conor McCarthy, Tacoma City Council Member, Position 7
Ryan Mello, Tacoma City Council Member, Position 8
Shirley Schultz, Tacoma City Project Manager, PSE LNG Project
John Wolfe, Chief Executive Officer, Port of Tacoma
Connie Bacon, Commissioner, Port of Tacoma
Don Johnson, Commissioner, Port of Tacoma
Richard Marzano, Commissioner, Port of Tacoma
Don Meyer, Commissioner, Port of Tacoma
Clare Petrich, Commissioner, Port of Tacoma

CC:

Jeannie Darnielle, Washington State Senator, District 27
Laurie Jenkins, Washington State Representative, District 27
Jake Fey, Washington State Representative, District 27
Patty Murray, U.S. Senator
Maria Cantwell, U.S. Senator
Adam Smith, U.S. Representative, District 9
Bob Ferguson, Washington Attorney General
Washington Utilities and Transportation Commission
Northwest Seaport Alliance
Sightline
Sierra Club
Citizens for a Healthy Bay
Tacoma News Tribune
Tacoma Weekly
Seattle Times

Subject: Request Supplemental Environmental Impact Statement for the Puget Sound Energy Liquefied Natural Gas Project

We the undersigned local scientists and engineers request the completion of a Supplemental Environmental Impact Statement (SEIS) for the proposed the Puget Sound Energy (PSE)

Liquefied Natural Gas (LNG) project in the Port of Tacoma Tidelands. There are a number of reasons behind this request to include:

System Wide Increases of Greenhouse Gas Emissions – While there has been discussion about the reduction of Greenhouse Gas (GHG) emissions that would be realized by TOTE Marine as they convert their two shipping vessels from diesel to LNG, there has not been any public discussion about the overall increase in GHG emissions due to the system-wide impacts of this project. There is mounting evidence that the end-to-end hydraulic fracturing (fracking) production of natural gas, transmission, liquefaction, storage, and conversion back to natural gas actually increases the overall GHG emissions.¹ Methane, which is the vastly predominant gas in natural gas, has been shown to leak from fracking sites² and it is a significantly more potent GHG than carbon dioxide (84 times as strong after 20 years and 28 times as strong after 100 years).³ It is irresponsible to only look at the GHG production that will be occurring in Tacoma as part of this project. One must consider the end-to-end impacts on the environment. When doing this, it becomes clear that this project becomes a losing proposition locally in Tacoma and globally for the environment.

TOTE Heavy Diesel Alternatives – TOTE currently uses a low cost heavy fuel oil for its two container ships that operate between Alaska and the Port of Tacoma. They are required by the Environmental Protection Agency (EPA) to meet more stringent exhaust gas emissions requirements, in particular for reducing diesel particulate matter (DPM). They are proposing to use LNG as an alternative to this existing heavy diesel fuel to meet the EPA regulations. However, a number of viable alternatives exist for TOTE to meet their regulatory emissions requirements. For instance, TOTE freely acknowledges that the installation of appropriate particulate scrubber technology would enable them to meet their EPA requirements. There are also low-sulfur fuel options that would satisfy the requirements. The bottom line is that LNG is not a requirement for TOTE to meet their gas emissions requirements. We have no knowledge that any of the other ships that visit Tacoma will use LNG to meet the requirements.

Incomplete Analyses and Changed Designs in the Final Environmental Impact Statement (FEIS) – There are a number of issues in the current FEIS that are not adequately addressed or missing due to the changing designs of the proposal. These include:

- *LNG Truck Traffic Safety Modeling + Increase in LNG Truck Traffic* – With the elimination of the Hylebos terminal for supplying LNG to marine traffic, PSE plans for how it intends to distribute the excess LNG are unclear. This alone should be cause for concern as the City of Tacoma has no way of knowing whether the proposal will be safe and what safety precautions the City needs to take. Assuming that LNG tanker trucks will be used for disbursing the excess LNG to some unnamed customers (as there

¹ <http://onlinelibrary.wiley.com/doi/10.1002/ese3.35/abstract>

² <http://www.nature.com/news/methane-leaks-erode-green-credentials-of-natural-gas-1.12123>

³ https://www.ipcc.ch/pdf/assessment-report/ar5/wg1/WG1AR5_Chapter08_FINAL.pdf, p. 714

appear to be no other viable alternatives), to our knowledge, no safety modeling has been accomplished surrounding this form of LNG transport with Tacoma, and it certainly has not been made available for public review if such modeling has been accomplished. Finally, while the FEIS does mention that some LNG Trucking will be used, it does not mention to what level. The City should have a clear sense as to the volume of trucking that will be involved in this operation as this greatly impacts safety and congestion in the Port.

- *Actual LNG Daily Generation Amounts – 250,000 v. 500,000 Gallons* – The FEIS is currently very misleading in that at times it states that PSE will produce 250,000 gallons of LNG daily at the facility and at other times that it will produce upwards of 500,000 gallons daily. What is the actual number? This should be explicitly stated and understood. If the real number is 250,000 gallons per day, all references to 500,000 gallons should be removed to prevent any misinterpretation and to require subsequent approval to expand beyond 250,000 gallons per day. If the number is actually 500,000 gallons per day, then the safety modeling and emission calculations all need to be re-submitted as the modeling currently assumes 250,000 gallons of daily production.
- *Firm Regulations Simply Do Not Exist for LNG Facilities + Proximity of Plant to Civilians* – A significant concern is the lack of firm regulatory standards for LNG facilities. Currently the U.S. Coast Guard (USCG) only provides guidance, not regulations, for such facilities.⁴ As part of this guidance, they refer to a Sandia National Laboratories report⁵ that references hazard zones surrounding LNG spills. The largest hazard zone (Zone 3) extends to 2.2 miles from the epicenter of the spill with a focus on vapor cloud dispersion. The current proposed location for the LNG plant places many civilians within Zone 3. We believe that independent catastrophic modeling should be performed to better understand this dispersion and provided for public review and comment. This modeling should include probability and consequence assessments, both of which are critical for risk assessment analysis.
- *Multi-Task Complexity of the Proposed LNG Plant* – Another major concern with this initiative is that it really does represent a first of its kind capability in the U.S. This will be the first LNG plant that will combine LNG production, marine bunkering, and LNG trucking at one location. Given the extra complexities involved, the centralized location of the facility in Tacoma, and the proximity to civilians, extra care should be taken to ensure that we fully understand the scope and magnitude of all components of this initiative and associated safety mechanisms.

City of Tacoma Conflict of Interest – We see a serious conflict of interest in the administration of how this project's EIS is being managed. The City of Tacoma is acting as the lead State Environmental Policy Act (SEPA) agency overseeing the EIS, but at the same time the City is expected to receive \$4.25 million from PSE from 2017 – 2019, not to mention sales taxes that

⁴ <https://www.uscg.mil/hq/cg5/nvic/pdf/2011/NVIC%2001-2011%20Final.pdf>

⁵ <http://www.nrc.gov/docs/ML0933/ML093350855.pdf>

will be earned as part of the construction of the facility.⁶ Can the city act as an honest broker when so much money is on the line to be made by the city with the project? We believe that this disqualifies the city as an objective entity for acting as the SEPA lead agency for this project.

Stop Investing in Fuel Sources of the Past – PSE expects to be able to produce approximately 250,000 gallons of LNG per day at the proposed facility and TOTE would consume about 110,000 gallons of this capacity. The rest of the fuel would be either be sold to new industrial non-residential customers or used as peak-shaving (6.3% of total) to support high demand peaks for residential users. However, growing the natural gas market sends the wrong message. This is not the direction the city should be taking, especially at a time when climate change is a very real phenomenon as evidenced by record-setting temperatures and carbon dioxide levels.⁷ We should be actively divesting ourselves away from continued fossil fuel extraction and consumption, and instead promoting clean energy sources. PSE assumes the life of the plant is 50 years. Approving this infrastructure now locks in Tacoma as a fossil fuel city.

Tacoma has a storied environmental past, plagued by multiple EPA superfund sites. It is time to break that pattern and move in a different direction. We urgently request the City of Tacoma approve the issuance of a SEIS for this project.

Sincerely,

Signed (Institutional affiliations are provided for identification purposes only, not as institutional endorsement):

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[http://cms.cityoftacoma.org/planning/pse/Reissued%20Final%20Tacoma%20LNG%20EIS%20-%20Full%20Document%20\(11-9-15\).pdf](http://cms.cityoftacoma.org/planning/pse/Reissued%20Final%20Tacoma%20LNG%20EIS%20-%20Full%20Document%20(11-9-15).pdf), p. 3.12.7.

⁷ <http://www.esrl.noaa.gov/gmd/ccgg/trends/full.html> or <https://scripps.ucsd.edu/programs/keelingcurve/>