



SIERRA CLUB

LONE STAR CHAPTER

To: Honorable Chair Rep. Jared Patterson, Chair,
Members, House Select Committee on Protecting Texas LNG Exports
Re: LNG “Pause” - Economic, Environmental and Other Impacts
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The Sierra Club Lone Star Chapter is pleased to provide some additional information to the Committee. As we made clear in our previous oral and written testimony, we believe the existing and proposed LNG export facilities, including those covered by the Biden pause, play an outside role in continuing to increase emissions of the gasses that cause climate change. And we do not agree that LNG exports are replacing emissions from coal units because the vast majority of exports are currently serving the Europe market, or going to third parties to be resold, including in countries like Qatar which do not burn coal. In some cases, US LNG exports could be directly undermining the adoption of cleaner, renewable technologies. Thus, we do not believe that the information provided by API in the committee hearing - that US LNG exports were replacing Asian or even European coal - is accurate. US LNG gas exports are worsening our climate crisis, and lifecycle emissions remain high. In addition, Texas has not solved the continued problems with flaring and venting in the Permian Basin. While we understand that two of the proposed facilities are planning to add carbon capture technology, that technology has never been combined with LNG facilities making it unproven, and it remains to be seen whether the geology in the Golden Triangle or in South Texas will work. We are hopeful that if Texas were to implement the recent methane rules finalized in December of 2023, the use of gas would be less damaging to the planet. Unfortunately, General Abbott, the Railroad Commission and TCEQ are spending taxpayer money fighting the rule, instead of figuring out ways to implement it in a way that works for Texas.

Table 1 shows the list of canceled, paused, proposed and existing LNG export facilities in Texas, and an estimate of life-time annual carbon dioxide equivalent emissions, which are of concern to communities. There are a total of 15 facilities and 40 “trains”, but it is important to note that only two facilities - Freeport LNG Train 1 and 2 and Corpus Christi Trains 1-3 - are currently operating, while two others have been canceled. Only two of the proposed facilities are specifically impacted by the DOE pause on new licenses - the Port Arthur expansion and the Corpus Christi LNG Midscale 8-9. If all of the facilities were built and operated, it could produce enough additional greenhouse gas emissions to equal emissions from 234 coal plants. These estimates are from Sierra Club’s LNG Tracker which is available online.

Table 1. Texas LNG Facilities, Status and Emissions

Project	Project Capacity (Bcf/day)	Total Trains	FID Status	Expected Operation Date if any	Lifecycle GHG Emissions (MMT CO₂/year)	Emission Equivalent: Coal Plants
Annova LNG Brownsville	0.90	6	Canceled	None	40	10
Corpus Christi LNG Phase 1	1.6	2	Operating	2018	71	18
Corpus Christi LNG Phase 2	0.80	1	Completed but delayed	TBD	36	9
Corpus Christi LNG Phase 3	1.58	7	Completed but delayed	Dec 2024	71	18
Corpus Christi LNG Midscale 8-9	0.45	2	DOE Pause	TBD	20	5
Freeport LNG	2.38	3	Completed	Operating	106	27
Freeport LNG expansion	0.74	1	Delayed	2028	33	8
Galveston Bay LNG	2.20	3	Canceled		98	25
Golden Pass LNG	2.57	3	Delayed	6/2025	115	29
Port Arthur LNG	1.86	2	Delayed	12/2027	83	21
Port Arthur LNG Expansion	1.86	2	Paused	12/2028	83	21
Power LNG	0,02	1	TBD		1	0

(Galveston)						
Rio Grande LNG Phase 1	2.24	3	Completed	07/2027	100	26
Rio Grande LNG Phase 2	1.49	2	Delayed	11/2029	67	17
Texas LNG Brownsville	0.62	2	Delayed	03/2028	28	7
Totals	21.29	40			952	234

While many of the facilities do not yet possess a final air permit from TCEQ to know with certainty the level of other emissions, existing LNG facilities operating in Texas and those that have sought permits show high levels of other emissions like VOCs, Nitrogen Oxides and carbon monoxide. Below shows the permitted emissions for the 13 major LNG facilities in Texas that have not been canceled. It is worth noting that community members went to court to the US Court of Appeals over the the TCEQ's proposed permit for the Sempra facility in Port Arthur, and that permit was thrown out by the courts because it was found that TCEQ did not properly follow the Clean Air Act, which requires best available control technology. In Corpus Christi, the Chaniere facility routinely busted through its 2018 issued permit levels, causing the TCEQ to work with the facility on a new permit which almost doubled those amounts. Simply put during operations the facility could not meet the permit limits in the original permit and rather than enforce those limits TCEQ instead granted an amended permit. Information below is from an organization called the Environmental Integrity Project, which has a website called Oil and Gas Watch that tracks large industrial projects.

Table 2. Permitted levels of Emissions in Tons of Selected facilities in Texas

Facility	Particulate Matter	VOCs	Permitted NOx	Permitted Carbon Monoxide	Sulfur Dioxide	Site Level Carbon Dioxide Equivalent	Total Acres of Wetlands Impacted
Cheniere Corpus Christi, Phase 1 and 2	85.30	371.14	3,571.71	3,728.16	49.39	5,590,442	
Corpus Christi LNG Phase 3, (Trains 4-7)	19.56	93.96	151.42	390.93	12.04	794,354	
Corpus Christi LNG Midscale 8-9	2.34	152.74	130.23	1,219.26	3.26	621,938	
Freeport LNG	0.23	53.29	43.50	170.16	0.37	5,881	
Freeport LNG expansion	0.0575	13.3225	10.875	42.54	0.0925		53 (for associated pipeline)
Golden Pass LNG	118.91	256.51	670.89	843.93	9.42	4,940,072	388
Port Arthur LNG	428.41	206.06	1,895.02	3,195.85	63.02	7,741,044	1,662.00
Port Arthur LNG Expansion	Included in permit above						

Rio Grande LNG Phase 1	257.42	481.81	1,112.30	1,723.74	19.51	6,425,400	182
Rio Grande LNG Phase 2	Included in above						
Texas LNG Brownsville	6.35	13.20	104.90	193.20	76.80	604,087	45

Source: Information from Environmental Integrity Project, Oil & Gas Watch Database, available at <https://oilandgaswatch.org/>.

Our Recommendations

As laid out in our written and oral testimony last week, the Sierra Club is supportive of the pause - which only impacts two projects in Texas - and has sent a letter signed by more than 100 organizations asking the administration for specific steps to better incorporate information and data and public input into the process for approving DOE licenses.

If Texas is to invest further in LNG facilities which appears likely even if the projects that are paused do not move forward, then we must assure the facilities are as clean as possible, do not threaten frontline communities and mitigate their environmental and health impacts.

Therefore we recommend:

- For all permits, Texas agencies should be required to publish all relevant documents on their websites so the public is assured access to these documents and can participate in permitting processes.
- TCEQ should be required to provide a public comment opportunity and opportunity to request a contested case hearing for all actions once a draft permit or action becomes available. This opportunity should be in addition to opportunities to comment and request contested case hearings once an application is available.
- There should be robust public participation opportunities and the opportunity for judicial review of all determinations under the Coastal Management Plan.
- TCEQ should be required to ensure that it is not allowing developers to avoid more stringent major source permitting requirements under the Clean Air Act (as explained in detail in this article <https://www.texastribune.org/2024/01/05/texas-pollution-companies-permits-tceq-epa/>)

- TCEQ must require the use best available control technology, including efforts to lower direct GHG emissions and the use of Selective Catalytic Reduction technology, such as that sought by community members opposing the Port Arthur LNG (Sempra) plant currently under construction. As a reminder, the Fifth Circuit Court of Appeals struck down TCEQ's proposed permit, which lacked the requirement to install this technology. Communities are very concerned about high levels of Nitrogen Oxides, sulfur dioxide and especially Volatile Organic Compounds that can have a direct impact on residential and community health.
- As we believe is required by federal law, TCEQ must consider the cumulative impacts of nearby facilities when permitting major source facilities such as LNG export facilities. While we believe this is already the law, TCEQ has not been considering cumulative impacts when permitting facilities and that must change, including through legislative direction or statutory clarification.
- LNG facilities require high water use, high energy use, and as the table indicates, can directly impact wetlands important for habitats and flood control. Before allowing more LNG facilities to operate, Texas must assure that these impacts are considered in our flood planning, water planning (through the TWDB) and electric planning (through ERCOT and Entergy Texas processes). If we do not carefully consider the costs to these systems, Texas ratepayers and taxpayers may end up footing the bill and the consequences of these mammoth export facilities.
- Rather than opposing the methane rule, Texas must adopt a State Implementation Plan to meet the 2023 methane rule within the next two years which requires substantial efforts by industry to reduce methane emissions over the coming years. The plan should incorporate both regulations and incentives, such as those available through the Texas Emissions Reduction Plan for both upstream and downstream emissions.
- Texas should assure robust inspections and enforcement of existing LNG facilities to assure that facilities are meeting their emission limits and operating facilities in a safe manner. The explosion at the Freeport LNG facility and continual emission events at other LNG facilities is a reminder that these entities can be dangerous to nearby communities. The legislature should consider specific parameters and funding around inspection and monitoring of LNG facilities along the coast.
- Texas should avoid placing LNG facilities in overburdened neighborhoods and should not destroy the very wetlands that help protect coastal communities during hurricanes, floods and storms. TCEQ, RRC and TPWD must coordinate closely to push back against proposals that would damage the very natural resources the state must protect, especially those resources that help keep Texans safe.