



LNG is not a “clean” fuel

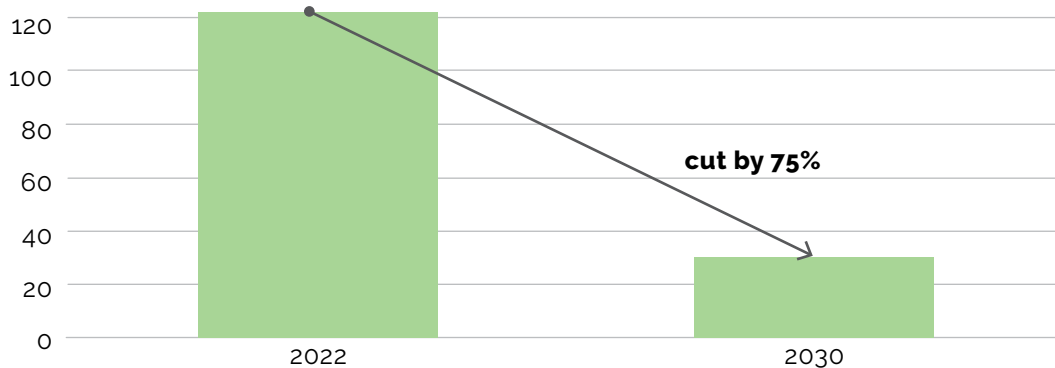
Mythbusting the climate impacts of natural gas exports

The ads are familiar by now: Time and time again, we see oil companies and trade associations with environmentally friendly names—as well as their allies in Congress—tout natural gas as a climate solution and a cleaner alternative to other fuels.¹ Unfortunately, reality is not as rosy as those ads would have you believe.

The proposed expansion of liquefied natural gas (LNG) infrastructure and export terminals would dramatically increase greenhouse gas (GHG) emissions, jeopardizing efforts to meet climate targets both domestically and abroad. In fact, when lifecycle emissions are taken into account, LNG is no cleaner than other fossil fuels. Building new LNG infrastructure now will lock in climate pollution for decades to come, even as the International Energy Agency warns that global methane emissions must decline 75% by 2030 to meet our 2050 climate goals; in other words, further buildout of LNG infrastructure would essentially block any pathway to net zero emissions by 2050.²

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Global methane emissions from fossil fuel operations in the Net Zero Emissions by 2050 Scenario, 2022 and 2030



LNG has massive lifecycle emissions

LNG is composed of methane, which is more than 80 times more effective at trapping heat in the atmosphere than carbon dioxide over a 20-year period.³ Beyond just the emissions produced by combustion for fuel, LNG is extremely energy intensive at every stage of its lifecycle and produces twice the emissions of conventional natural gas.⁴

1 See, e.g., Natural Allies – For a Clean Energy Future; ExxonMobil; Air Liquide; Cheniere; December 2021 Letter to PHMSA from Members of Congress
 2 <https://www.iea.org/reports/net-zero-roadmap-a-global-pathway-to-keep-the-15-oc-goal-in-reach/executive-summary>
 3 The climate implications of using LNG as a marine fuel - International Council on Clean Transportation (theicct.org)
 4 NRDC: Sailing to Nowhere – Liquefied Natural Gas Is Not an Effective Climate Strategy (PDF)

The buildout of 24 proposed LNG terminals⁵ in the United States could result in an additional 90 million tons of GHG emissions per year—as much climate pollution as the emissions from 18 million gasoline-powered passenger vehicles running for a year.⁶ This does not include either upstream or downstream emissions, such as from fracking, which would make that estimate several times higher.⁷ Accounting for these lifecycle emissions would erase any emissions reductions benefits from exporting LNG, especially as methane leaks and flares are known to occur throughout the extraction and transport process.⁸ Flares and leaks are occurring more and more frequently and are hugely underestimated by the federal government⁹. In 2020, France even blocked a deal to import U.S. LNG due to concern over such risks.¹⁰

The consequences of these enormous emissions and other environmental impacts associated with the LNG lifecycle would devastate communities across the country, particularly those which already bear a disproportionate share of the climate burden.

LNG is much dirtier than renewables—and is just as dirty as other fossil fuels

When sized up against renewable energy sources, LNG doesn't even come close in terms of emissions reductions. In fact, to produce the same amount of energy, LNG emits 14 times as much carbon as solar power, and 50 times as much carbon as wind power.¹¹ Additionally, a 2023 study disproves the notion that LNG provides *any* climate benefits. Researchers found that lifecycle greenhouse gas emissions from LNG exported to Europe and Asia—including its extraction, transportation, combustion, and leakage along the value chain—are 24 percent higher than emissions from coal extracted and burned in those regions.¹² From an emissions reduction perspective, not only do renewables handily beat LNG but there is little evidence to support LNG's reputation as a transition fuel to clean energy.

Expanding LNG exports will make our climate goals unattainable

Expanding LNG exports would make it nearly impossible for the U.S. and its allies to achieve our shared climate goals. Proposed buildout of LNG infrastructure around the world threatens to push temperature rise past the 1.5° Celsius limit, undermining efforts to limit warming below levels needed to avoid the worst impacts of climate change.¹³ And while the emissions associated with LNG are spread across the globe, domestic producers are responsible for emissions from extraction and chilling, which are substantial. Additionally, the U.S. is responsible for up to 40 percent of the emissions from use of the fuel itself.¹⁴ Research using data from the Intergovernmental Panel on Climate Change's Fifth Assessment Report also found that LNG is not a useful alternative to reach the International Maritime Organization's climate goals for the shipping sector.

5 This number reflects three LNG terminals currently under construction at the time of the report (June 2022) plus nine approved terminals and 12 proposed terminals.

6 Environmental Integrity Boom in LNG Could Add More Than 90 Million Tons of Greenhouse Gases a Year

7 FINAL-LNG-REPORT-7.27.22-REVISION.pdf (environmentalintegrity.org)

8 Liquefied Natural Gas Exports Are a Climate Threat (nrdc.org)

9 <https://www.bloomberg.com/news/articles/2020-02-11/perman-s-gas-burning-black-eye-is-30-worse-than-thought?leadSource=uverify%20wall>

10 Gas flaring catches up with U.S. LNG | Insights | Bloomberg Professional Services

France halts Engie's U.S. LNG deal amid trade, environment disputes | Reuters

11 Liquefied Natural Gas (LNG) 101 | NRDC

12 https://www.research.howarthlab.org/publications/Howarth_LNG_assessment_preprint_archived_2023-1103.pdf (pre-print)

13 Climate Action Tracker

14 NRDC: Sailing to Nowhere – Liquefied Natural Gas Is Not an Effective Climate Strategy (PDF)



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