



## Liquefied natural gas is not a “clean” fuel

### Exposing the massive climate impacts of fossil 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 so-called natural gas as a climate solution and a cleaner alternative to other fuels.<sup>1</sup> But, the reality tells a far different story.

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.

#### LNG has massive lifecycle GHG 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.<sup>2</sup> 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.<sup>3</sup>

**The buildup of 24 proposed LNG terminals<sup>4</sup> 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.<sup>5</sup>** This does not include either upstream or downstream emissions, such as from fracking, which would make that estimate several

<sup>1</sup> See, e.g., Natural Allies - For a Clean Energy Future; ExxonMobil; Air Liquide; Cheniere; December 2021 Letter to PHMSA from Members of Congress

<sup>2</sup> The climate implications of using LNG as a marine fuel - International Council on Clean Transportation (theicct.org)

<sup>3</sup> NRDC: Sailing to Nowhere - Liquefied Natural Gas Is Not an Effective Climate Strategy (PDF)

<sup>4</sup> 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.

<sup>5</sup> Environmental Integrity Boom in LNG Could Add More Than 90 Million Tons of Greenhouse Gases a Year

times higher.<sup>6</sup> 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.<sup>7</sup> Flares and leaks are occurring more and more frequently and are hugely underestimated by the federal government.<sup>8</sup> In 2020, France even blocked a deal to import U.S. LNG due to concern over such risks.<sup>9</sup>

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.<sup>10</sup> Additionally, **the 90 million tons of GHG emissions produced by the 24 proposed export terminals would roughly equate to the emissions of 20 new coal-fired power plants.** Not only do renewables handily beat LNG from an emissions reduction perspective, but there is little evidence to suggest that LNG has any kind of net climate benefit.

### **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 buildup 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.<sup>11</sup> 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.<sup>12</sup> 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.

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6 FINAL-LNG-REPORT-7.27.22-REVISION.pdf ([environmentalintegrity.org](http://environmentalintegrity.org))

7 Liquefied Natural Gas Exports Are a Climate Threat ([nrdc.org](http://nrdc.org))

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

9 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.

10 Liquified Natural Gas (LNG) 101 | NRDC

11 Climate Action Tracker

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



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