

Media Briefing: U.S. Liquefied Gas Flooding Europe



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Key Findings

- If Europe enacts ambitious climate change policies to phase out fossil gas use by 2035, then **Europe will be able to halt all imports of liquefied natural gas (LNG) prior to 2030.**¹
- Policies to phase down gas consumption in Europe would remove the need for new LNG export terminals in the United States, which would in turn help phase out harmful oil and gas drilling across the U.S. – from Texas to Pennsylvania.
- Such policies would help put both the U.S. and Europe on a pathway to limit global warming to 1.5°C (2.7°F) and meet the goals of the Paris Agreement.
- However, the oil and gas industry is seizing a moment of crisis to drive a massive build out of LNG infrastructure on both sides of the Atlantic that will lock us into reliance on fossil gas and put our climate goals out of reach.
- This build out is anchored by long-term contracts to export U.S. LNG to Europe for decades to come. In 2022 alone, 17.65 million tonnes per annum (mtpa) of new LNG (equivalent to 848 billion cubic feet of gas, bcf) was contracted for sales to European gas companies. These contracts would continue for 15 to 20 years.
- In Europe, eight LNG import terminals are under construction and 38 more have been proposed. If built, these could more than double Europe's LNG import capacity to 38 billion cubic feet per day (bcf/d) and result in an additional 950 million tons of CO₂-eq emissions per year.²
- In the U.S., there are seven operating export terminals, three terminals under construction, twelve new and expanded terminals that are approved but awaiting financing, and numerous proposed projects that have not yet been approved. If built, the approved projects alone could more than double U.S. export capacity to 42 bcf/d – with annual lifecycle emissions equivalent to 393 million cars.³
- By 2030, U.S. LNG export by itself could be larger than the Net Zero Emissions (NZE) estimate by the IEA for *global* LNG trade.⁴
- This LNG expansion threatens the health of communities living near these export terminals, and also those living near extraction sites and pipelines, which could see impacts from increased production. LNG contributes to fossil fuel racism, whereby Black, Brown, Indigenous, and poor communities are disproportionately harmed by pollution and climate impacts.
- While the energy crisis has led to record profits for oil and gas companies, families in the U.S. and Europe have struggled to make ends meet, and Global South nations suffered from high energy prices.
- Policy makers in both Europe and the U.S. have the ability to halt this LNG buildout, break the carbon lock-in inherent to long-term LNG contracts, and put both regions on a pathway to a green and just future.

LNG Shock Therapy

The oil and gas industry has moved quickly to take advantage of the disruptions caused by Russia’s invasion of Ukraine. In 2022, a surge of shipments of liquefied natural gas (LNG) from the United States was redirected to Europe in order to replace Russian pipeline gas and secure supplies for the European winter. By taking advantage of this short-term energy crisis, the industry has also secured financing and begun construction on numerous LNG terminals on both sides of the Atlantic that are designed to operate for decades to come.

This massive build out of unneeded new infrastructure is a costly mistake that will come too late for the current crisis, but will harm communities and put both U.S. and EU climate goals at risk.

In classic “shock doctrine” style,⁵ the oil and gas industry wasted no time in pushing a rapid increase of U.S. LNG shipments as the solution to the crisis. In Europe, the industry quickly shifted their public messaging from “energy transition” to “energy security.” In response to the crisis, the EU’s REPowerEU plan included around 10 billion euros in funding for gas infrastructure.⁶

On March 25, 2022, U.S. President Joe Biden announced plans to direct 15 billion cubic meters (bcm) of additional LNG shipments to Europe that year, with a goal to scale this up to 50 bcm (1,770 bcf) annually by 2030.⁷ Simultaneously, the European Commission and the U.S. made a joint

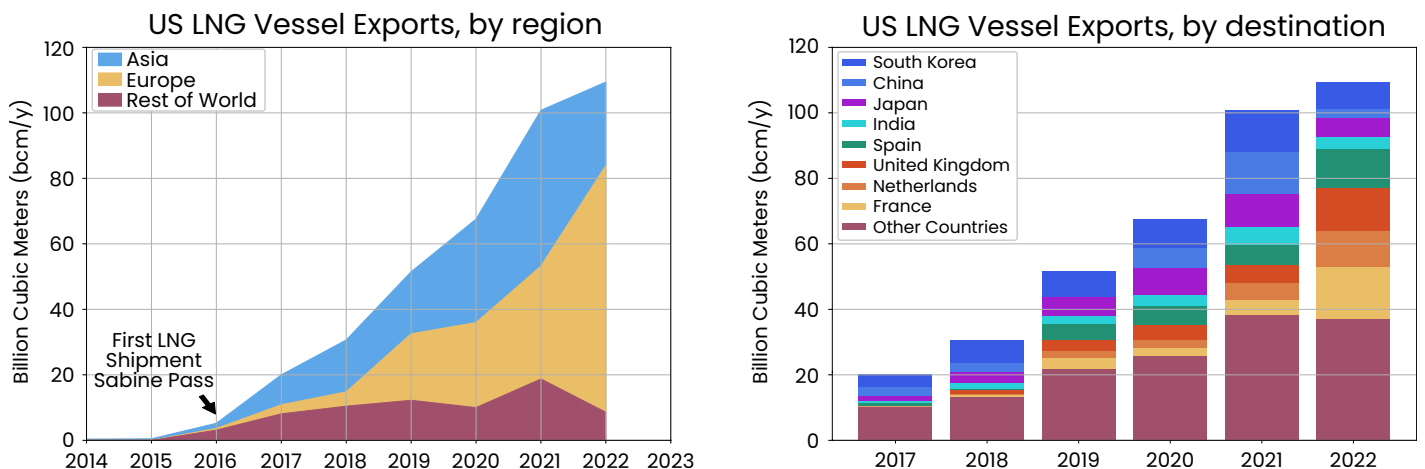
statement on European Energy Security in which Europe expressed its intention to accelerate its regulatory procedures to fast-track LNG import terminals, and to encourage long-term contracts to support the final investment decisions (FID) of U.S. LNG export terminals.⁸

As a result, U.S. LNG imports to Europe more than doubled, increasing from 1,029 bcf (29 bcm) in 2021 to nearly 2,500 bcf (70 bcm) in 2022 (see Figure 1) – easily surpassing Biden’s initial goal.⁹ During this 2022 LNG boom, no country imported as much U.S. LNG as France, accounting for nearly a quarter of all U.S. LNG imports, followed by the United Kingdom, Spain, and the Netherlands.

From Shock to Lock-In

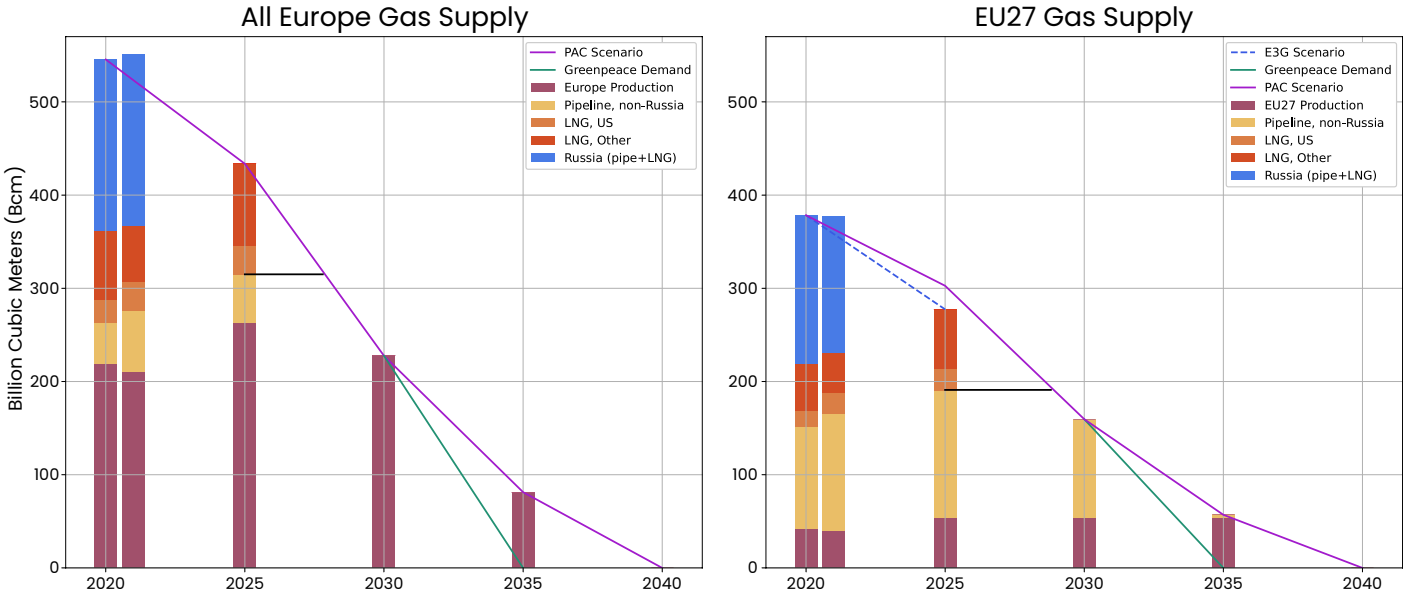
Europe’s energy crisis is driven by the short-term need to get off Russian oil and gas. But in order to meet the climate goals laid out by the Paris Agreement, the world must rapidly begin to phase out all fossil fuels and reach net-zero emissions by 2050. Ambitious climate pathways consistent with 1.5°C show that Europe must phase out its gas consumption by 2035¹⁰ or 2040,¹¹ which would allow Europe to eliminate both Russian gas imports and all LNG imports before 2030¹² (for an illustration, see Figure 2). The LNG industry plan is in direct conflict with these short decarbonization timelines. The industry demands long-term (15-20 year) purchase contracts, and the construction of expensive terminals designed to generate revenues for decades to come.

Figure 1: Growth of U.S. LNG shipments to markets in Asia and Europe.



(Data: U.S. EIA)

Figure 2: Scenarios to phase out gas consumption in Europe are consistent with an end to both Russian gas imports and LNG imports before 2030.



(Greenpeace analysis, Data: BP Statistical Review 2022).

In Europe, eight LNG import terminals are under construction and 38 more have been proposed. If built, these could more than double Europe’s LNG import capacity to 38 bcf/d (394 bcm/y) and result in an additional annual 950 million tons CO₂-eq per year. Such a massive overcapacity would be enough to supply virtually all of the current annual EU gas demand.

Despite this, existing European import terminals only utilized 63% of their regasification capacity in 2022, leaving as much as 2,700 bcf (77 bcm) unused. To put all this in perspective: the EU imported 5,400 bcf (153 bcm) of gas in 2021 from Russia,¹³ and has already replaced nearly 75% of those imports primarily via existing infrastructure and reducing demand – without the need for new LNG infrastructure or long term contracts.¹⁴

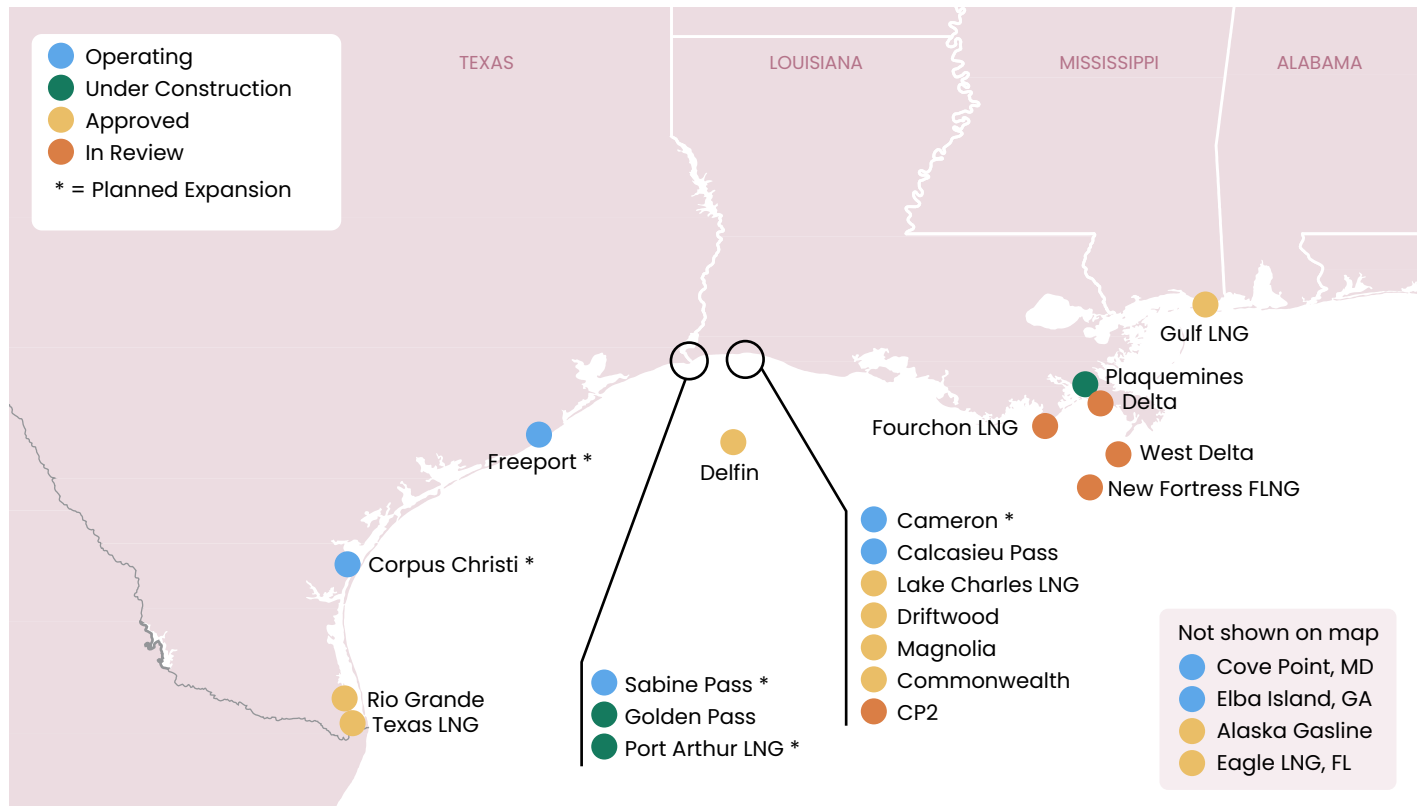
The build out of import terminals in Europe has been mirrored by a similar build out of export terminals in the United States. Currently there are seven operating export terminals, three terminals under construction, twelve new and expanded terminals that are approved but awaiting financing, and numerous proposed projects that have not yet been approved (see Figure 3 on following page). This proliferation of U.S. export terminals has been significantly financed by European banks, and made possible by the signing of

long-term supply agreements with European purchasers and portfolio traders. Long-term contracts are key factors in determining whether an expensive liquefaction terminal can achieve its final investment decision (FID).¹⁵ A total of 17.65 mtpa (848 bcf) of new LNG was agreed for sales to European gas companies in 2022, or about as much as 65% of French gas consumption.¹⁶

The proposed and approved projects in the U.S. would collectively represent a massive increase in U.S. LNG export capacity. It is not certain that all of these projects will be built, but the approved projects awaiting financing alone could more than double U.S. export capacity to 42 bcf/d (439 bcm/y).¹⁷ The estimated timeline for this additional LNG buildout shows that by 2030, U.S. LNG by itself could be larger than the IEA’s net zero estimate for *global* LNG trade.¹⁸

This buildout is irrelevant to Europe’s real short-term needs. As we have seen, the U.S. can temporarily increase their LNG exports to Europe to cover the short-term supply crunch, without the need for long term contracts or new infrastructure.¹⁹ And by definition, any LNG terminal coming online in 2026 or later is not intended to help weather the immediate crisis – but will certainly make the next crisis much worse.

Figure 1: Growth of U.S. LNG shipments to markets in Asia and Europe.



(Data: U.S. EIA)

Breaking the Climate

Investments in pipelines, terminal infrastructure and long-term contracts are all a form of “carbon lock-in”, where decisions made today make it harder politically, economically, and socially to decarbonize in the future. Limiting warming to 1.5°C means that the world cannot afford to develop any new coal, oil, or gas fields.

LNG typically has higher lifecycle emissions than pipeline gas due to its energy intensive liquefaction process, shipping requirements, and methane leakage. This makes it a particularly inappropriate fuel for a carbon-limited world. Rystad Energy estimates that the surge of LNG imports will drive up European emissions by 35 million tonnes.²⁰

The IEA’s Net-Zero Emissions (NZE) Scenario estimates that in a 1.5°C aligned pathway, LNG exports will peak in 2025, both globally (at 17,600 bcf or 497 bcm) and from North America specifically (at 4,240 bcf or 120 bcm). Following that, North American LNG exports will decline almost to zero by 2045.²¹ However, the

export capacity of the seven operating U.S. terminals (5,120 bcf or 145 bcm) is already larger than the peak in this scenario. By 2030, U.S. LNG by itself could be larger than the NZE estimate for the entire global LNG trade. Existing and proposed export terminals have also negotiated long-term contracts, the total volume of which is also far higher than the NZE estimates (see Figure 4).

Analysis by the Sierra Club found that the annual lifecycle emissions of the LNG passing through the seven operating U.S. export terminals is the equivalent to the emissions from 119 million cars. Adding the LNG from under construction and approved terminals would bring total annual emissions equivalent to 393 million cars.²²

The environmental and climate impact of these contracts have made them controversial with European citizens. In 2020, Engie initially backed out of a deal with Next Decade LNG over concerns about high methane emissions.²³ To make these contracts more palatable to an increasingly climate-conscious public, many companies have engaged in greenwashing

schemes. For some contracts, European buyers are demanding a certification of the emissions from the purchased gas, either as assessed by a third party or by the terminal operator. However, significant questions about these gas certification schemes have been raised,^{24 25} and to date there is no regulation requiring standard methods or transparency.

It's clear that the LNG buildout being foisted upon the U.S. and Europe is a long-term disaster rather than a short-term solution.

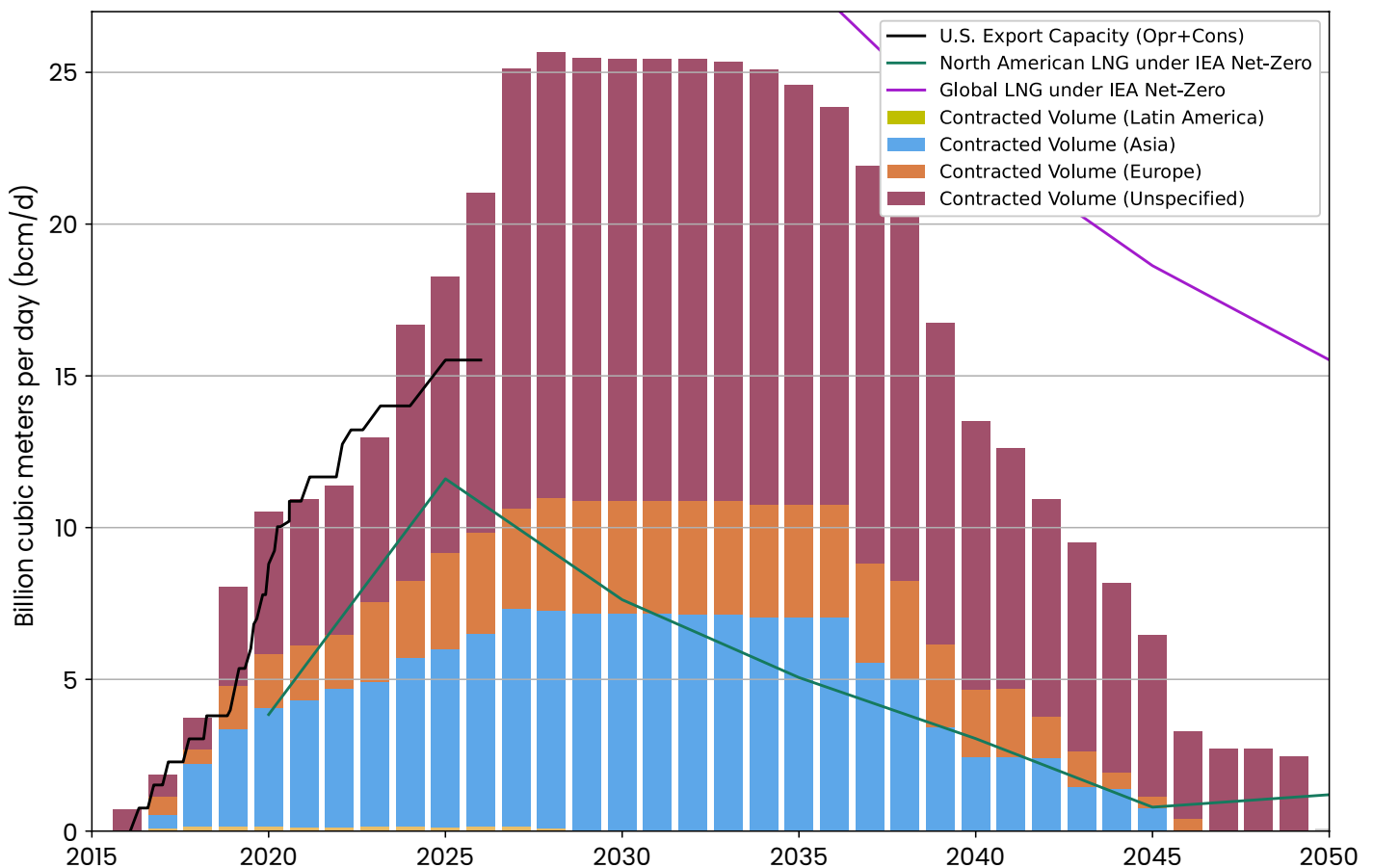
Footing the Bill

The energy crisis has been very profitable for oil and gas companies.²⁶ The five supermajors (Exxon, Chevron, Shell, BP, and TotalEnergies) generated \$102 billion in profits in 2022 – roughly twice as much as 2021.²⁷ LNG exporter Cheniere also nearly doubled their revenues in 2022.²⁸

Families faced record high energy bills in 2022. Energy costs for Europeans increased by \$1 trillion and governments responded with around \$700 billion in subsidies and aid packages to offset those costs.²⁹ In the 2022-2023 winter 3 out of 4 Europeans have cut back on food and everyday items in order to pay the rising energy bills.³⁰ A quarter of U.S. respondents polled in the summer of 2022 said they had forgone necessities like food or medicine to pay their energy bill.³¹

The high prices that Europe was willing to pay for LNG also resulted in a price competition where countries from the Global South were outbid in the race to secure their energy needs. Pakistan suffered from European suppliers breaching their contracts forcing gas rationing and emergency spot market purchases.³² Other countries faced blackouts and some resorted to restarting coal plants.³³

Figure 4: Contracted volumes of U.S. LNG exports to Latin America, Asia, Europe and Unspecified markets, compared with the IEA Net-Zero Emissions scenario.



(Data: BloombergNEF)

Harming Communities

Many of the European countries importing LNG know how harmful fracking is because they banned it. But they seem to have no issue with outsourcing that pollution to other countries. Interestingly, many of the banks helping to finance LNG terminals have at least some policy excluding fracking from their banking activities.³⁴

Each stage of the life cycles of oil, gas, and coal — extraction, processing, transport, and combustion — generates toxic air and water pollution that is linked to negative health impacts for people living near these pollution sources. In the context of the U.S., these health impacts fall disproportionately on Black, Brown, Indigenous and poor communities.³⁵

All the operating and under construction terminals in the U.S. except one are located near a “disadvantaged community” as determined by the White House Council on Environmental Quality (CEQ). Notably, the Corpus Christi and Freeport terminals have a large population living within 3 miles of the site that are disproportionately low-income and people of color. A cluster of three terminals (Sabine Pass, Golden Pass, Port Arthur LNG) is located near Port Arthur, Texas — a town of 50,000 (majority people of color) that

is already home to three oil refineries, including the largest in the U.S. Other terminals have been proposed in regions that are disproportionately low-income communities of color — notably Rio Grande LNG, Texas LNG, and Plaquemines LNG. Terminals located in Southwest Louisiana are in a region that already faced elevated risks from air toxics.

In addition to pollution harms from LNG terminals themselves, the surge of LNG exports has sparked an increase in oil and gas extraction as well as transport and processing to meet the demand. A compendium of scientific and medical research on the impacts of fracking in the U.S. summarized its findings by saying, “Our examination uncovered no evidence that fracking can be practiced in a manner that does not threaten human health directly and without imperiling climate stability upon which public health depends.”³⁶ A growing body of research has associated proximity to oil and gas activity with health problems such as respiratory impacts (e.g., asthma), cancer, poor birth outcomes, and more.³⁷ Data from the EPA’s Air Toxics Screening Assessment shows that 236 counties with a total population of 14 million “face cancer risk exceeding EPA’s one-in-a-million threshold level of concern, just due to oil and gas pollution.”³⁸

“Europeans shouldn’t think gas exported from my community is ‘freedom gas’...you’re still being enslaved by this gas that causes so many problems and troubles... It’s not freedom gas because you’re really not free. It’s going to cost you. It’s going to cost you more and it’s going to cost you in the long run. Because the more you use it, the more peril it places on your life and health, and the life and health of people across this entire planet. Climate change is real. We see it here every day.”

— John Beard, Port Arthur Community Action Network ³⁹

Recommendations

The passage of the Inflation Reduction Act (IRA) marks a turning point in U.S. Climate Policy. For the first time, Congress has acted to curb demand for fossil fuels, but has left fossil supply unconstrained. As a result, the U.S. finds itself in a trap where declining domestic demand coupled with high production could fuel a surge of exports. These exports are a form of “carbon leakage” and if left unconstrained could erode the emissions reductions in the IRA.⁴⁰ What’s more, continued domestic production is a threat to the health of communities all along the fossil fuel supply chain. A more robust climate policy would pair demand-side reductions with policies to phase out fossil fuel production.

Long-term gas supply contracts will lock-in both the U.S. and EU into decades of emissions at the expense of our climate and the health and safety of communities. LNG companies right now are signing export agreements that risk locking the US into decades more drilling, infrastructure buildout, and exporting. On the buyer side, these contracts lock import countries into decades more fossil gas consumption and delayed renewable energy investment. Leaders from these nations have the climate and moral imperative to cut off the gas industry’s decades-long hold on our energy future.

U.S. policy makers must take the following steps to align LNG exports with strong climate goals:

- Reject federal permits for any **new infrastructure** projects that would increase GHG emissions or worsen the climate crisis. This requires that any new pipelines or new LNG export terminals be rejected.
- Reject federal approval for any LNG export **shipments from existing or approved terminals** that are inconsistent with 1.5°C pathways, worsen domestic energy poverty, or pose health threats to nearby communities.
 - The Department of Energy (DOE) has the authority to overhaul its “public interest” determination (which governs LNG exports to non-free trade agreement countries) to explicitly consider climate change, environmental justice and energy justice.

- DOE should hold hearings and take the necessary steps to document that the cumulative lifecycle emissions associated with LNG exports are inconsistent with our climate goals and contrary to the public interest. Where needed, DOE should revoke approvals or set time limits for exports from existing terminals.

- DOE should make public the long term contracts signed between LNG sellers and buyers.
- President Biden must wield his global leadership and support ending international public finance for fossil fuels, including LNG, at the G7, G20 and COP28.

Both Biden and Congress must take further steps to protect the climate and communities living on the fence lines of the fossil fuel supply chain. Such policies include:

- Establish a national plan and targets to wind down existing fossil fuel production and infrastructure.
- Eliminate federal fossil fuel subsidies.
- Ban new fossil fuel leasing and permitting on public lands and waters, and phase out existing leases.
- Phase out exports of crude oil and reject federal permits for any new crude oil export terminals.
- Enact regulations to eliminate methane emissions and flaring from oil and gas facilities.
- Require air and water pollution reductions in polluted communities by implementing a comprehensive “No Pollution Hotspots” policy.
- Pass the Environmental Justice for All Act to provide legal remedies to citizens, improve equity mapping tools, expand grant programs, and strengthen consultation with impacted communities.
- Build on the renewable energy incentives in the IRA to enact a Green New Deal that will direct trillions of dollars in public investments to create millions of green union jobs, rectify past injustices, and ensure that energy-dependent workers and communities are left better off through the transition.

Phasing out fossil fuel exports from the U.S. must be paired with strong demand-side policies to end fossil fuel use in Europe and other importing markets. Stopping the expansion of gas requires strong policies both to reduce harms where drilling occurs and all along the supply chain to decrease the demand for gas and incentivize the rapid buildout of renewables.

CHANGE THE SYSTEM

1. Remove fossil fuels from politics, by: ending their access to decision-making; ending conflicts of interest; excluding fossil fuel industry representatives from climate negotiations; rejecting partnerships with the fossil fuel industry.
2. Revoke the privileged role of gas lobby group ENT-SOG in EU decision-making processes.
3. Ensure full transparency on all available data on gas flowing into, through, and out of the EU.
4. Further strengthen, adopt and enforce due diligence legislation at European and national levels.

PHASE OUT GAS

1. Set mandatory gas reduction targets at EU and national levels,
2. Set targets for climate neutrality by 2040 in the EU and the US,
3. Pursue an active fossil gas phase-out by 2035. Due to its higher carbon intensity and risk of methane leaks, imports of LNG should be phased out first.
4. Cancel all projects for the construction of new LNG import terminals and expansion of existing terminals
5. Halt new long-term contracts for the delivery of LNG, and ban extension of existing contracts.
6. Properly account for the higher lifecycle emissions of LNG compared to pipelined gas.
7. Critically assess hydrogen projections and projects pushed by the fossil fuel industry.

REDUCE CONSUMPTION, BOOST EFFICIENCY AND EXPAND RENEWABLE ENERGY

Policies and measures are needed to support urgent measures that provide the services required from energy but do not rely on fossil gas through rapid expansion of systems and mechanisms that reduce consumption, expand efficiency and renewable energy sources.

Energy Saving and Conservation measures to reduce demand:

Efficiency (incl. insulation) - in Building and Industry: Renewable heating (like heat pumps); Building renovation heater efficiency in buildings; efficiency in industrial processes.

1. Financial support schemes for vulnerable people to meet their basic energy needs
2. Ban disconnections e.g. energy providers should not have the right to cut off customers who fail to pay their bills, in particular vulnerable ones
3. Drive deep building renovations and sufficiency that can realize the potential to permanently cut demand by improving the energy performance of buildings.

Power production – Maximize measures for renewable power sources at all public, commercial, and industrial sites and operations. E.g. solar panels on rooftops, install heat pumps and undertake renovation measures.

Industry – where possible be fully electrical and more circular, while always prioritizing energy saving

Tax fossil fuel profits: to help meet the investment needs of the energy transition, ensuring the burden does not fall on citizens and the rest of the economy.

Endnotes

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