FOOD & WATER ACTION EUROPE

GAS NO es solución

LNG - LIQUEFIED FRACKED GAS

Unveiling the Toxic Truth Behind Europe's LNG Obsession

> *We shouldn't be investing and putting all of our faith into the fossil fuel industry that has been lying to us for decades, and now they're passing on to you the false solutions. LNG is sold, like fracked gas was sold, as a clean transition fuel and we're seeing just within the past 5 years the impacts to our environment, to our health, to our water. We need to stop buying these terrible false solutions.* - **Elida Castillo, Resident of Corpus Christi (Texas) & Activist for Chispa Texas**

In 2023, gas imports from the United States (US) into the 13 EU countries that imported US Liquefied 'Natural' Gas (LNG) accounted for nearly 23% of the total fossil gas consumption. When considering the entire EU-27, over 19% of the bloc's total gas consumption is met by US LNG, which is almost entirely sourced from fracking. In 2023, compared to 2021, imports from the US nearly tripled, revealing a **cascade of detrimental effects** that extend across the entire supply chain from upstream production to the final downstream phase. Fracking is a technology notorious for its disastrous toll on communities and the environment: a technology inextricably linked to human rights violations within the affected areas.

In the wake of Russia's invasion of Ukraine, the EU turned to LNG as a substitute for Russian gas, with the US emerging as the EU's top LNG trade partner. In March 2022, the EU and US jointly committed to increasing LNG trade, leading to US exports to the EU doubling in just one year. In 2022, the US supplied 56 billion cubic meters (bcm) (compared to 22 bcm in 2021), with commitments to ensure at least 50 bcm of additional LNG annually until at least 2030. EU LNG imports reached a record high of over 130 bcm in 2023, with the US providing nearly half of the total supplies, totalling 64 bcm.

Although the Biden Administration imposed a temporary pause on pending LNG projects at the beginning of 2024, existing LNG terminals continue to export to Europe, and export capacity is set to nearly double by 2028. Furthermore, the US is backing LNG projects globally; for example, the US Export-Import Bank (EXIM) intends to offer financial assistance to a $13 billion LNG project in Papua New Guinea.

Rather than replacing Russian fuels with renewable energy and moving towards a just, swift phase-out of fossil fuels, the EU has turned to US fossil gas, shifting the costs of pollution and environmental degradation to local communities there. Fossil gas, no matter its origin, is no solution, and a new LNG lock-in will only delay the urgently needed transition to 100% renewables.

This briefing takes a closer look at fossil gas imports from the US.

FRACKING NIGHTMARE: ANALYSIS OF US LNG IMPORTS IN THE EU

> Fracking is poisoning our drinking water supplies [...] They are drilling up to 25 to 30,000 feet into the earth's crust using millions of gallons of water mixed with sand and chemicals. That is not being regulated and it's leaching into our drinking water system. Water is life and we don't have an alternative but to decrease our consumption of fossil fuels and transition to a clean energy future, **Elida Castillo**

What is Fracking?

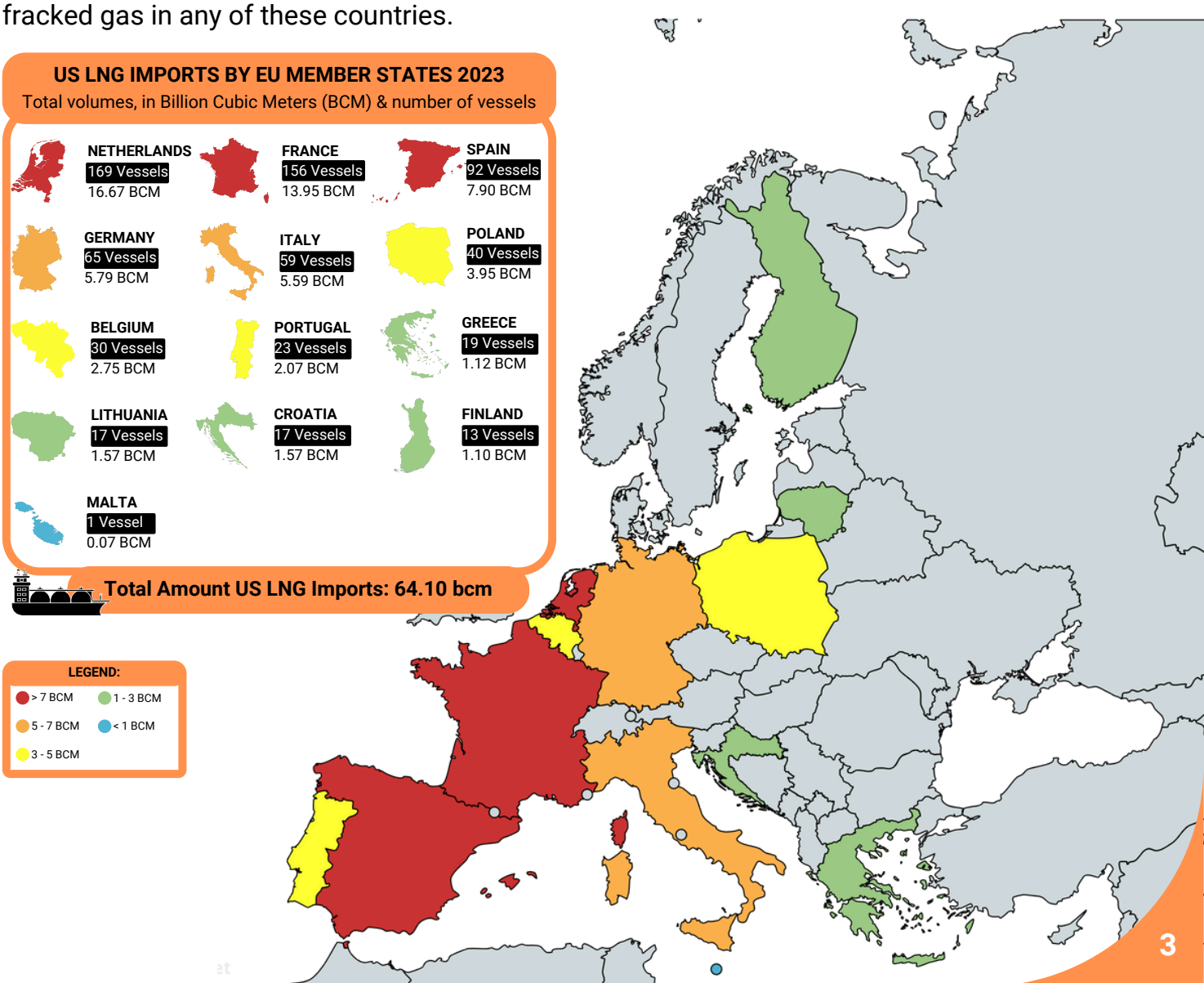
Fracking involves injecting large amounts of water, sand, and chemicals into geological formations at high pressure to extract oil and gas. **This process contributes to a global increase in emissions of methane, which is more than 86 times as harmful to the climate as CO2**. Fracking pollutes drinking water and generates large amounts of toxic wastewater, posing health risks to communities and threatening indigenous rights and land. Fracking can trigger earthquakes, and it drives the petrochemicals and plastics boom as well as destructive fossil infrastructure buildouts. Due to these concerns, fracking is widely banned across the EU.

In 2023, Europe's appetite for LNG persisted, as EU-27 imports exceeded 130 billion cubic meters (bcm), maintaining a level similar to that of the previous year. Forty eight percent of the EU's LNG imports originated from the US. According to data from the US Energy Information Administration, 88% of gas produced in the US is extracted through hydraulic fracturing. **If we apply this percentage** to the total volume of US LNG imports, it means that in 2023, **American fracked gas fulfilled over 17% of the total gas demand in the EU-27.** A figure that could be even higher given that almost all fossil gas shipped from the Gulf Coast region originates from fracking sites in Texas and Louisiana, where gas is nearly 100% fracked.

A total of 701 US LNG vessels arrived at EU ports in 2023, marking an increase from 621 vessels in 2022. The biggest importers in terms of volume were the Netherlands, followed by France and Spain. These three countries collectively received more than 38 bcm of gas, representing over 60% of all US LNG imports. Though Germany was not among the top three US LNG destinations, it is worth noting that the US supplied more than 80% of Germany's LNG imports.

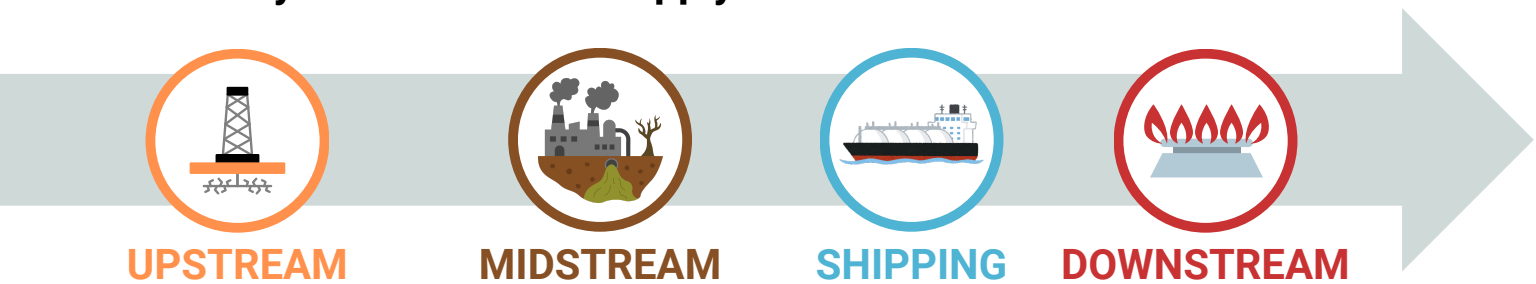
Regarding LNG export terminals to the EU, the bulk of fracked gas shipped across the Atlantic Ocean originated from the Gulf Coast region, notably Texas and Louisiana, which stands at the forefront of the US LNG boom. **In 2023, the Sabine Pass (Louisiana) and the Corpus Christi (Texas) terminals were the primary export facilities.** Together, they covered 50% of the total volume of exports to the EU. The Sabine Pass facility exported over 17 bcm of dirty gas. Both terminals are owned by Cheniere Energy, America's largest LNG exporter, which likes to portray itself as sustainable, despite studies revealing that it largely underestimates its GHG emissions and has repeatedly violated pollution limits, which subsequently risks poisoning local communities. It is worth noting that in March 2023, the Freeport Terminal in Texas resumed LNG exports after a dramatic explosion occurred in June 2022, which posed a deadly hazard to the environment and nearby communities. Within the span of 10 months, Freeport exported over 7 bcm of gas, primarily destined for the Netherlands.

Despite the fact that ten out of the thirteen LNG importing EU countries have either bans or moratoria on fracking or all hydrocarbon extraction (Italy, France, Croatia, Germany, The Netherlands, Spain), don't extract fossil fuels on their territory (Belgium), or lack fossil gas deposits altogether (such as Finland, Lithuania and Malta), there is no ban on importing fracked gas in any of these countries.



EXPOSING THE ENVIRONMENTAL AND HUMAN TOLL OF FRACKING

The Dirty LNG Process & Supply Chain



UPSTREAM

Fossil Gas Extraction, **mainly through fracking**

MIDSTREAM

Fracked gas is transported, processed, and **liquefied for transportation by ship**

SHIPPING

Distribution of LNG overseas using LNG carriers

DOWNSTREAM

LNG product is unloaded, stored and **regasified for distribution to final consumers**, such as households for cooking & heating.

Despite being marked by the fossil fuel industry as a "cleaner alternative", the extraction, transportation, and usage of fracked gas have severe implications for human rights, particularly in regions where it is sourced or transported. **Scientific studies have consistently linked fracking to adverse health effects**, including **suspected cancer clusters in heavily fracked areas like the Marcellus Shale region**. In particular, chemicals utilized in fracking, including carcinogens, endanger human health. The **fossil fuel industry's relentless pursuit of profit disregards the rights of marginalized communities**, exposing them to the toxic effects of fracking. This violation of human rights has also been confirmed by the International Permanent People's Tribunal, an opinion tribunal competent to rule on crimes committed to the detriment of peoples and minorities. Already in 2018, the court issued an advisory opinion on 'Human Rights, Fracking and Climate Change' declaring that the fracking industry violated fundamental human rights, including the rights to life, water, health,[1] and full information and participation. This could lead to ecocide, and endanger human rights for current and future generations due to its contribution to climate change. The ruling highlighted the complicity of governments through affirmative policies and a failure to regulate, creating a global "axis of betrayal". Concrete examples from Pennsylvania demonstrate the magnitude of these violations, with fracking companies committing over 4,000 violations between 2008 and 2016, including cases of allowing toxic chemicals to flow off drilling sites, endangering drinking water, polluting rivers and streams, and improperly disposing of waste.

1 The right to a healthy environment, encompassing access to clean air, water, and procedural rights such as access to information and access to justice, is jeopardized by relentless fossil fuel operations.

Additionally, the expansion of the fossil fuel industry exacerbates both social and economic injustice. For instance, studies indicate that a disproportionate number of individuals residing near health-hazardous and toxic flares are from Black, Native American, and Hispanic communities. Most of the dangerous, polluting industries are located systematically in lower income and minority majority communities. This makes it harder for the local population to resist, or even leave polluted areas. These operations create "sacrifice zones," where marginalized groups bear the brunt of environmental destruction and systemic racism perpetuated by the fossil fuel industry.

> "**We've seen a lot of people become sicker and sicker and eventually die** and that is directly related to living in such a cancerous poisonous area." - *Chloe Torres, Resident of Corpus Christi (Texas) & Activist for Texas Campaign for the Environment*.[2]

Moreover, in fracking sites like the Permian Basin region, there is also a persistent shortage of skilled workers, coupled with job instability and a lack of health benefits, which forces individuals into precarious and unsafe employment. Meanwhile, ongoing investments in fracking impede progress toward a sustainable future beyond fossil fuels.

Indeed, the Permian Basin region tragically exemplifies the full spectrum of impacts stemming from the fracking industry. The Permian Basin region, stretching across New Mexico and Texas, is twice the size of Bulgaria and home to over 2 million people. It produces 40% of US oil and 15% of gas, alongside petrochemical byproducts. Fracking's expansion in the region has brought about numerous environmental, social, and economic challenges.

The **Permian Basin is a climate bomb**. Recent reports suggest that unchecked fracking is poised to release over 55 billion metric tons of CO2 by 2050, depleting 10% of the global carbon budget necessary to limit temperature rise to no more than 1.5°C. This comes at a time when fossil gas production from the Permian Basin is projected to increase in 2024, which leads to large methane emissions due to venting, flaring, and multiple uncontrolled leaks. **The Permian Basin might be the largest methane-emitting oil and gas basin in the world**. Methane emissions not only act as a powerful greenhouse gas, contributing to climate change on a global scale, but they also present health hazards to nearby communities.

2 The quotes in the text are taken from the events on LNG and its impacts on frontline communities in the Gulf Coast region, which occurred in Brussels in October 2023. Links are here and here.

Methane emissions are released alongside volatile organic compounds, leading to significant health concerns and deteriorating local air quality. Rising ozone levels, a result of methane oxidation, pose significant health risks, particularly for vulnerable groups like children and the elderly. Additionally, response times to pollution complaints in the Permian are unacceptably slow.

The emissions of greenhouse gasses into the atmosphere will only compound the difficulties faced by regions already grappling with the impacts of climate change, especially severe heatwaves and droughts, threatening agriculture and driving residents away from their land.

Thirsty fracking operations dramatically increase water usage, further exacerbating the situation. In Texas, freshwater usage for fracking surged by 2,400% between 2010 and 2019, even before the current LNG export expansion. However, precise figures on water wells or extraction remain elusive due to exemptions under the Texas Water Code for oil and gas producers, demonstrating a dramatic lack of regulatory effectiveness. Furthermore, toxic chemicals used in the fracking process directly threaten the quality of groundwater, vital for local communities.

Furthermore, the devastating impacts created by the fossil gas industry expansion are not even justified by internal energy security needs. This is because a significant portion of the oil and gas produced ends up being exported. Sixty percent and 89% of the gas produced in Texas and New Mexico, respectively, are exported.

THE DARK SIDE OF THE LNG BOOM

Once fracked gas is transported through an extensive network of pipelines to the Gulf Coast region for processing and shipment via LNG carriers, local communities face challenges and impacts very similar to frontline communities living near fracking wells. Specifically, they encounter **significant environmental issues** related to the conversion process of fossil gas to LNG, which results in pollution of land, water, and air. This includes the release of toxic air pollutants, exacerbating health issues such as leukemia and respiratory problems in affected communities.

In Corpus Christi, Texas, where a large LNG export terminal is operated by Cheniere, residents in neighborhoods like Hillcrest, historically African American and bordered by refineries, have faced decades of segregation and subsequent environmental racism in the form of pollution. As a result, they experience a life expectancy that is 15 years lower than other parts of Corpus Christi. Despite these grave concerns, authorities persist in granting permits to fossil fuel companies, further deteriorating air and water quality, all while attempting to portray themselves as benevolent neighbors.

> "**Good neighbors don't try to kill you**." - *Elida Castillo.*

In Corpus Christi, the LNG terminal is situated dangerously close to the city and its neighborhoods, schools, and senior centers. Gas flares are an ever-present sight, and the fossil fuel company is even trying to expand its flaring capacity. Community members joke about this tower of fire, calling it "Sauron's Tower" for fans of *The Lord of the Rings*. **Despite the evident threat to the residents, there are no emergency evacuation plans for potential explosions** and orphaned pipelines further endanger residents. In a tragic event in 2020, five men lost their lives in an explosion triggered by the cutting of a liquefied propane pipeline. Engaged in dredging the ship channel to accommodate large tankers, these five men were unaware of the pipeline's existence. When the dredging ship inadvertently struck the pipeline, it led to a devastating explosion and the loss of five lives. This tragic incident underscores the glaring absence of transparency in informing communities about the risks they face.

We see another stark example in the case of the Freeport LNG explosion in Texas[3]. The community received no prior notification; even the mayor was not immediately informed about the explosion. During a public meeting held by PHMSA[4], community members were allotted only 15 minutes to express their concerns in an hour-long session.

> "I do **really hate the word accident** because I don't think they are accidents. Fossil fuel companies have created this culture of normalization where **people think it's normal to live under these conditions.**" *Jenny Espino - Resident of Corpus Christi (Texas) & Activist for Texas Campaign for the Environment*.

3 Take a look at Global Witness video explaining the consequences of Freeport Gas Explosion - https://www.youtube.com/watch?v=JbmxU8QElnI

4 Pipeline and Hazardous Materials Safety Administration (PHMSA) is a U.S. Department of Transportation Agency responsible for developing and enforcing regulations for the safe, reliable, and environmentally sound transportation of energy and other hazardous materials.

Adding to these profound injustices is the growing burden of climate change impacts on Gulf Coast communities, including escalating heatwaves and droughts. Despite this, the fossil fuel companies can use unlimited amounts of water, paying only a $0.25 fee per thousand gallons.

> "While communities are being told you need to conserve water and restrict your water usage, **the facilities in our communities are using as much water and as much power as they want**, which once again runs on gas." - *Elida Castillo.*

The detrimental environmental effects of LNG projects on frontline communities are evident, particularly in "Cancer Alley" in Louisiana. The proposed Plaquemines LNG terminal by Venture Global, dubbed "Vulture Global" for its destructive activities, will exacerbate environmental issues, contributing to coastal land loss and water contamination.

> "**We've been hit by four major hurricanes in the past three years and we're losing land faster than anywhere in North America**. Plaquemines Parish, which is where this facility is being built, has lost 50% of its land mass since 1970." - *Michael Esealuka, Community Organizer Based in Louisiana.*

Additionally, LNG expansion corrodes water infrastructure, leaching heavy metals into water sources, posing risks to public health.

Beyond the environmental and climate impacts, **labor rights violations are rampant in the LNG industry**, with workers subjected to unsafe working conditions, low wages, and precarious employment. Furthermore, affected communities encounter significant barriers in accessing justice and seeking redress for human rights abuses, as legal frameworks often favor corporate interests over the well-being of vulnerable populations. These injustices starkly expose how systemic racism props up the fossil fuel industry by dumping the consequences of pollution on Black and Indigenous people, and people from minority groups, as they have less institutional power to stop these operations. Thus, socio-economic disruptions caused by the fossil fuel industry further exacerbate existing struggles in these communities.

EU'S COSTLY LNG FRENZY: HIGH-STAKES RISKS TO CLIMATE GOALS & THE MOST VULNERABLE

Looking at the final destination of LNG, the rush for liquified gas in the EU is entirely at odds with the continent's decarbonization goals, posing a serious threat to a 100% clean energy transition and exacerbating harm to local communities. **In 2023, the EU's LNG import capacity grew by 40 bcm, with an additional 30 bcm expected in 2024**. Recent estimates suggest that by 2030, the EU's LNG import capacity could surpass 400 bcm, while demand is unlikely to exceed 190 bcm, in line with recent and projected contraction of gas demand and consumption. To contextualize, a 400 bcm import capacity exceeds twice the amount of gas imported from Russia in 2021 before the Ukraine war, which stood at 150 bcm. This is utterly absurd, given that, according to Food & Water Action Europe analysis, the **utilization rate of import facilities for 2023 was below 60%**, and all this additional capacity will not be operational in the short term. Given that Floating Storage Regasification Units (FSRUs) can remain operational for up to 20 years and onshore terminals potentially lasting nearly 40 years, **there is a significant risk of investing in stranded assets and cementing our dependence on fossil fuels**. After Russia's invasion of Ukraine, LNG terminals have mushroomed all across Europe, especially due to the construction of FSRUs, and a new wave of LNG contracts ensued. Ten new contracts were signed with US exporters in 2022 and 16 more in 2023. **The largest contract will supply the French company TotalEnergies with 7.45 bcm of US LNG annually from 2026 to 2046**. The majority of these contracts will lock the EU and the US to another 20 years of LNG extraction, export, and combustion, contradicting the EU's climate ambition and its recent proposal for a revised climate target aimed at cutting the EU's greenhouse emissions by 90% by 2040. It is worth noting that gas piped from Norway is approximately ten times less carbon-intensive compared to LNG.

Additionally, **in its haste to diversify gas supplies, the EU has completely overlooked human rights concerns** and **turned to authoritarian regimes**. For instance, despite Azerbaijan's numerous human rights violations, the EU has welcomed its gas. Equally controversial is the tripartite Memorandum of Understanding (MoU) signed in 2022 with Israel and Egypt, with the idea of making shipments of Israeli gas to Europe via Egyptian export terminals. This decision entails the EU benefiting from Israel's ongoing and unlawful exploitation of the Occupied Palestinian Territories' (OPT) resources, while backing of the Egyptian government serves to legitimize its authoritarian rule and reinforces its suppression of basic human rights.

Simultaneously, the EU has shifted gas supply challenges to countries like Pakistan and Bangladesh, which, as a result, have struggled to meet industrial consumption and power generation needs. Shipments earmarked for poor countries have been redirected to Europe or simply not delivered, despite already signed contractual agreements. Moreover, ironically, the EU continues to import Russian LNG, with Spain and Belgium having boosted their imports by 50% in the first 9 months of 2023 compared to the same period in 2022.

New LNG infrastructure and new long-term LNG contracts will do little to alleviate the problem of rising energy costs and energy vulnerability. A frantic pursuit of LNG could legitimize the gas industry's efforts to lock the energy poor into fossil fuels and it will fail to address the root causes of energy vulnerability. Subsidies for energy and direct financial assistance for fossil fuel heating cannot offer a long-term resolution. Comprehensive strategies must prioritize enhancing energy efficiency, boosting 100% renewable energy, and implementing targeted support mechanisms for vulnerable communities, thereby ensuring that the costs and benefits of the transition are distributed equitably among consumers.

THE IMPACTS OF LNG EXPANSION IN THE EU: FOCUS ON THE "EL MUSEL" LNG TERMINAL IN ASTURIES (SPAIN)

The negative impacts of the LNG export boom extend to Europe as well. "El Musel" is just one example among many, where the expansion of LNG import capacity poses threats to people, the planet, and environmental justice, sparking strong opposition.

Located in the industrial-polluted city of Xixón in Asturias, the LNG regasification terminal in the port of "El Musel" exemplifies Spain's flawed gas planning.

Initially proposed in 2005 amidst prospects of increasing gas demand, Enagás (Spanish Transmission System Operator, TSO) was awarded the construction contract in November 2006. Historically, Enagás has justified such projects with exaggerated demand forecasts, leading to overinvestment in LNG infrastructure.

Despite construction approval in 2008 and an Environmental Impact Statement (EIS), the plant was shelved in 2012 due to overcapacity (i.e. **it was not necessary**), and remained unused for a decade. **In 2013, its licence for construction was declared illegal due its proximity to residential areas**.

However, Enagás initiated in 2018 a new project and execution procedure. The EIS was approved in 2021, and the terminal obtained administrative authorization in June 2022. In 2023, it gained opening approval, purportedly to enhance “European energy security”.

In the application for the opening of “El Musel” submitted by Enagás, the operator justified the terminal as a storage facility for LNG distribution to other destinations. However, the reality is quite different. The terminal has only injected gas into the national grid since its entry into service, receiving **fracked gas shipments from the US.** At the closing date of this report, **not a single ship has left the El Musel terminal with LNG for Europe.**

Until March 2024, nine vessels had offloaded fracked gas (approximately 0.9 bcm), mainly from Corpus Christi, but also from Calcasieu Pass (Louisiana). This illustrates Spain's hypocrisy - while it bans fracking domestically due to its harmful impacts, it simultaneously increases imports of fracked gas from the US. In 2022, US gas imports doubled compared to 2021, making the US Spain's largest LNG supplier, and in 2023, the US accounted for 21% of total imports into Spain.

This situation highlights Enagás' exploitation of the "energy crisis" to profit, while chaining Spain to gas dependence and increasing fracked gas imports. Moreover, the terminal's construction will cost taxpayers over 670 million euros. In response, Ecoloxistes n’Aición de Asturies has taken legal action against the project, asking for its demolition and seeking reimbursement of funds.

WHAT TOOLS DO WE HAVE TO COUNTER THE LNG EXPANSION?

Amidst the surge in LNG production and its devastating impacts on both climate and communities, particularly in the US where it's intricately tied to fracking, there exist cross-border tools to halt this unbridled expansion. These measures extend beyond legislative efforts, drawing upon transatlantic solidarity and existing opposition to LNG development projects.

- **Corporate Sustainability Due Diligence Directive** (CSDDD) - The **CSDDD aims to hold large businesses accountable for human and environmental rights violations in their global value chains**. It covers large EU-based companies and those operating in the EU but incorporated in a third country. It theoretically provides a framework for improving corporate accountability for harmful effects of the LNG value chain. However, **it falls short by excluding climate obligations like the Paris Agreement, limiting its effectiveness in addressing the climate crisis**. Additionally, the directive's narrow scope, its reliance on turnover thresholds rather than the impact of activities, and especially its size-based thresholds for companies, all severely restricts the potential effectiveness. Moreover, the exclusion of certain activities from due diligence further diminishes its potential impact. Lastly, penalties and civil liability will be enforced in cases where there is evidence of socio-environmental impacts caused by the absence or failures of risk plans. However, If these plans are properly prepared, published, updated and evaluated, the company cannot be deemed liable for damages incurred. The legislative process, which faced challenges and compromises, has progressed with political approval and awaits final endorsement in the European Parliament's Plenary and in the Council of the European Union.

- **EU Methane Regulation** (find more info here) - In November 2023, the EU institutions reached a deal on the EU Methane Regulation, extending domestic monitoring, reporting and, verification (MRV) to energy imports by 2027 and imposing methane intensity thresholds on oil and gas imports from 2030, which are yet to be defined. Expected to enter into force by mid-2024, **this regulation offers a tool for driving methane reduction efforts among trade partners and curbing global emissions linked to Europe's gas consumption**. The regulation broadens its scope by extending the leak detection and repair (LDAR) rules to EU LNG terminals. However, it fails to address the methane emissions resulting from the transportation of LNG itself, or its use as fuel in LNG-powered vessels.

- **Resistance Across the Pond** - The struggle against LNG expansion can rely on **transatlantic resistance, composed of active groups operating on both sides of the ocean**. This collaboration has led to coordinated actions such as open-letters, facilitated information sharing, and fostered synergies through meetings, gatherings, and field visits in Europe and the US. As depicted by the Food & Water Action Europe's LNG Threat Map, groups and activists strongly opposing the dirty LNG buildout are present on both sides of the ocean.

METHODOLOGY

- Analysed time period: 1 January - 31 December 2023
- U.S. Energy Information Administration (EIA) figures show that in 2023, 88% of the gas extracted in the United States was shale/tight gas. This gas is extracted by fracking. https://www.eia.gov/energyexplained/natural-gas/where-our-natural-gas-comes-from.php. U.S. East Coast LNG terminals exporting to Europe contain different shares, but often close to 100% fracked gas.
- Data on LNG vessel origin, destination, and volumes from the U.S. Department of Energy (DOE) [https://www.energy.gov/fecm/articles/natural-gas-imports-and-exports-monthly-2023] was compared with Eurostat monthly data on gas consumption [https://ec.europa.eu/eurostat/databrowser/view/nrg_cb_gasm__custom_10660382/default/table?lang=en].
- *Note*: Gas imports into an EU member state are often higher than the total consumption of that country, as imported LNG is often transported further into Europe, eg. from Greece to Bulgaria, from the Netherlands to Germany, from Italy to Austria, etc., or injected into storage facilities. Underlying calculations and data can be found here: https://docs.google.com/spreadsheets/d/1xn3gKMd9et7QlWZwW4aynS6qHV5MqIc-4qRCQkHwA64/edit#gid=1350678565

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