

Playing With Fire: Fracked Gas Transport in Florida

The oversupply of natural gas on the heels of the fracking boom has resulted in the buildout of liquefied natural gas (LNG) infrastructure across the country. LNG is fracked gas super-cooled into a liquid state so it can be transported to areas not reached by gas pipelines.¹ LNG infrastructure emits pollutants and can cause leaks, spills and explosions.² Moreover, it locks in fossil fuel use that is driving the climate catastrophe. Florida is already on the frontlines of the climate crisis, as hurricanes and storms get more extreme, sea levels continue to rise and pristine coastal fronts rapidly disappear.³ LNG expansion threatens to deepen the crisis.

Industry's Expansion Threat

LNG liquefaction facilities receive fracked gas by pipeline and cool it to a liquid state. The resulting LNG requires a fraction of the volume to store compared to fracked gas and can be transported in intermodal (ISO) containers, making it attractive to exporters.⁴ Many of these liquefaction facilities are located near ports, which then load LNG containers onto ships that sell to Caribbean markets, feeding the American gas export boom.⁵ LNG can also be transported and stored domestically, where it is later warmed back to a gas state and used in homes and businesses.⁶ Additionally, LNG is increasingly being used as a fuel in vehicles, from trucks to trains to cruise ships.⁷

Despite industry's greenwashing,⁸ LNG is still a dirty energy source with little to no climate benefits over other fossil fuels.⁹ Rather, pursuing LNG exports extends a lifeline to the fossil fuel industry that threatens to offset any domestic reductions in fracked gas consumption.¹⁰

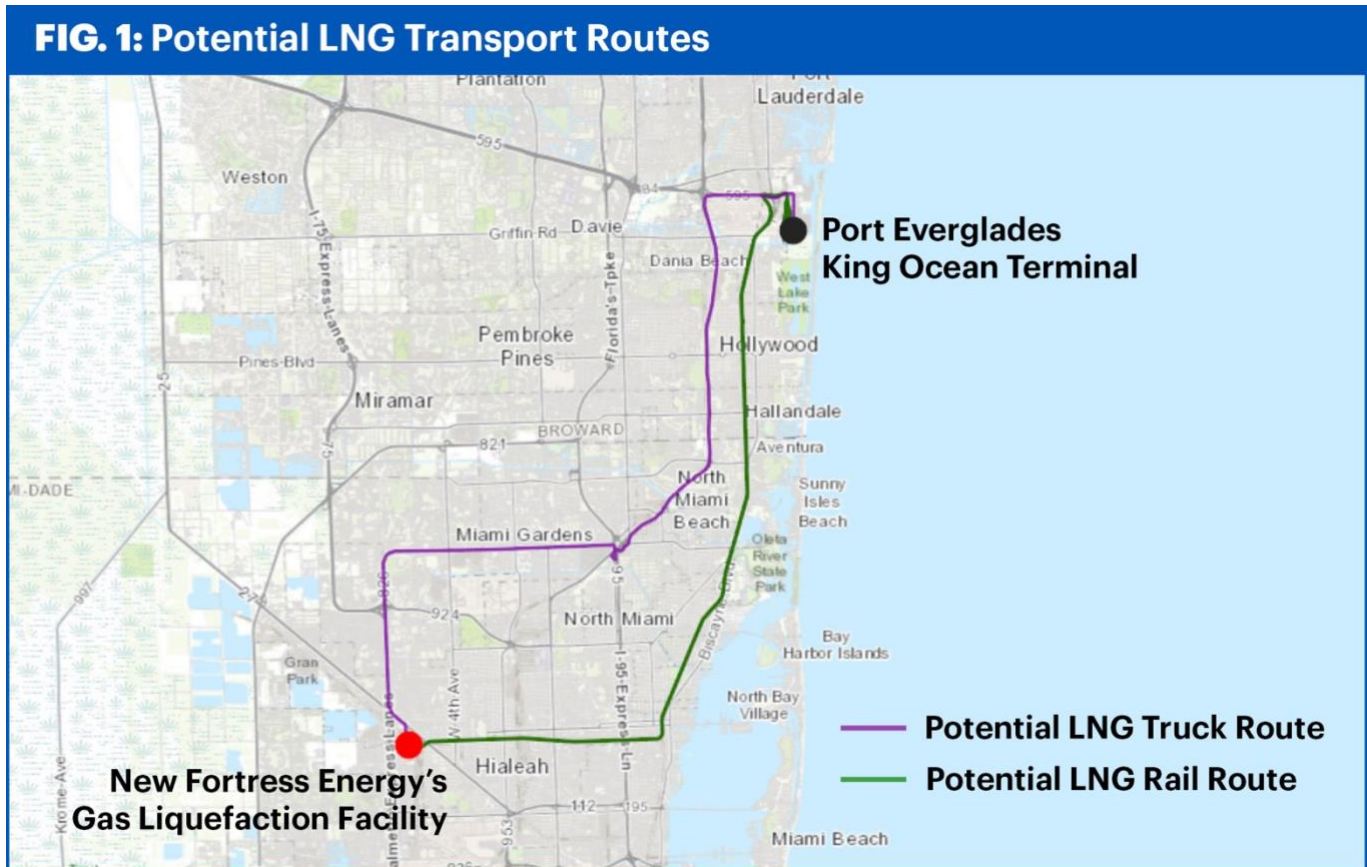
Exporting LNG requires prior federal approval.¹¹ However, some companies are evading federal oversight when liquefying or transporting LNG domestically. For instance, companies can petition the Federal Energy Regulatory Commission to confirm that the agency has no jurisdiction over a proposed project. Yet companies like New Fortress Energy are building LNG facilities without bothering to even obtain this confirmation. This includes a Miami-Dade liquefaction and storage facility that has been operating since 2016.¹²

A "Bomb on Wheels"

In 2017, the Florida East Coast Railway (FEC) obtained a special permit from the U.S. Department of Transportation (DOT) to carry LNG by rail in ISO containers from a Hialeah

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liquefaction facility owned by its affiliate, New Fortress Energy, to Port Everglades and PortMiami (Figure 1). That same year, FEC converted its entire fleet on its Jacksonville-Miami line to run on this LNG fuel.¹³ In 2020, following lobbying by the railroad industry, the Trump administration loosened regulations to allow LNG transport by DOT-113 tank cars without any additional safety precautions — almost a year before the federal safety assessment of these cars was set to be released.¹⁴



Source: Food & Water Watch analysis of Federal Railroad Administration data. Truck route is approximate and shows the shortest distance between the two facilities.

While a November 2021 proposed rule from the Biden administration would suspend the Trump rule, no company to date has yet to transport LNG in DOT-113 cars.¹⁵ Thus, the rule has no impact over railroad companies like FEC that have special permits to transport LNG in ISO containers — yet another loophole polluters are exploiting for profit.

Transporting LNG in any container is tremendously risky. LNG must remain below minus 260 degrees Fahrenheit or it will regasify, meaning that leaks form invisible, flammable vapor clouds. LNG fires burn hotter and more rapidly than oil or gasoline, and can be worsened by water — so much so that first responders are instructed not to extinguish them but rather to evacuate the surrounding area and let the fires burn themselves out.¹⁶ A National Academies of Science report described in grim details what a “worst-case” scenario from an LNG tank car spill and fire would entail. The scenario included combustible vapors extending 1.5 miles and second-degree burns up to 0.4 miles.¹⁷

Fuel train derailments are disastrous; the 2013 oil train explosion in the small town of Lac-Mégantic, Quebec killed 47 people and flattened the downtown area.¹⁸ Frighteningly, due to FEC's unique authorization to carry LNG via rail, an experiment could now be happening on rail routes that travel across numerous highways and through densely populated areas. To make matters worse, these LNG trains could also share tracks with high-speed passenger trains with a notoriously poor safety record.¹⁹

We must stop LNG expansion

LNG industry expansion in Florida is dangerous and counterproductive — especially given that clean, renewable energy is not only viable in Florida, but largely untapped.²⁰ Plus, the only way to meaningfully mitigate the disastrous effects of climate change is to move away from fossil fuels altogether.

President Biden and Congress must stop new LNG infrastructure, block all LNG exports and permanently ban LNG transport by rail in any container, including overturning FEC's special permit. Federal action must be paired with local commitments. Local leaders must protect their communities from dangerous LNG operations by taking action to stop new proposals and halt current operations.

Endnotes

- ¹ National Academies of Sciences, Engineering, and Medicine (NASEM). (2021). [Prepublication copy]. *Preparing for LNG by Rail Tank Car: A Review of a U.S. DOT Safety Research, Testing, and Analysis Initiative*. Washington, DC: National Academies Press at 9.
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- ³ U.S. Environmental Protection Agency (EPA). [Fact sheet]. "What Climate Change Means for Florida." EPA 430-F-16-011. August 2016 at 1.
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- ⁵ U.S. Department of Energy (DOE). Office of Fossil Energy (OFE). "Application of SpotX Energy, LLC for Long-Term and Short-Term Authorization to Export Liquefied Natural Gas to Free Trade Agreement and Non-Free Trade Agreement Nations." Docket No. 19-104-LNG. August 23, 2019 at 14 and 15; Vantuono, William C. "FED goes LNG." *Railway Age*. November 10, 2017 at 2.
- ⁶ Ospina, Andres. "Innovative natural gas facility in Homestead will benefit customers and community." *Go! Latinos Magazine*. December 6, 2020.
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- ⁸ Vantuono (2017) at 1.
- ⁹ Lindstad, Elizabeth and Agathe Riialland. "LNG and cruise ships, an easy way to fulfill regulations — versus the need for reducing GHG emissions." *Sustainability*. Vol. 12. 2020 at abstract; Gilbert, Alexander Q. and Benjamin K. Sovacool. "US liquefied natural gas (LNG) exports: Boom or bust for the global climate?" *Energy*. Vol. 141. December 2017 at abstract; Abrahams, Leslie S. et al. "Life cycle greenhouse gas emissions from U.S. liquefied natural gas exports: Implication for end uses." *Environmental Science & Technology*. Vol. 49. 2015 at abstract.
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- ¹¹ 15 U.S.C. § 717b (2005).
- ¹² "New Fortress seeks US court review of FERC decision over Puerto Rico LNG facility." *S&P Global Platts*. May 26, 2021; O'Driscoll, Mary. Federal Energy Regulatory Commission. Letter to John S. Quarterman. Suwannee RIVERKEEPER and WWALS Watershed Coalition, Inc. "FOIA No. FY21-04: Response letter." December 8, 2020 at 1; New Fortress Energy. U.S. Securities and Exchange Commission. Form 10-K. Commission File No. 001-38790. FY ended December 31, 2020 at 5.

- ¹³ NASEM at 10; Vantuono (2017) at 1 to 4.
- ¹⁴ Englund, Will. "Trump administration moving to allow railroads to haul liquefied natural gas. Opponents say it's a risk." *Washington Post*. March 3, 2020; NASEM (2021) at vi and 1.
- ¹⁵ 86 Fed. Reg. 61732. November 8, 2021.
- ¹⁶ Parfomak, Paul W. and John Frittelli. Congressional Research Service (CRS). "Rail Transportation of Liquefied Natural Gas: Safety and Regulation." R46414. July 2020 at 1 to 3.
- ¹⁷ NASEM (2021) at 30.
- ¹⁸ Austen, Ian. "A runaway train explosion killed 47, but deadly cargo still rides the rails." *New York Times*. July 16, 2019.
- ¹⁹ Parfomak and Frittelli (2020) at 17; Vantuono (2017) at 1 to 4; Wile, Rob and Doug Hanks. "Who's responsible after four years of deaths on Brightline's tracks." *Miami Herald*. January 25, 2022.
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