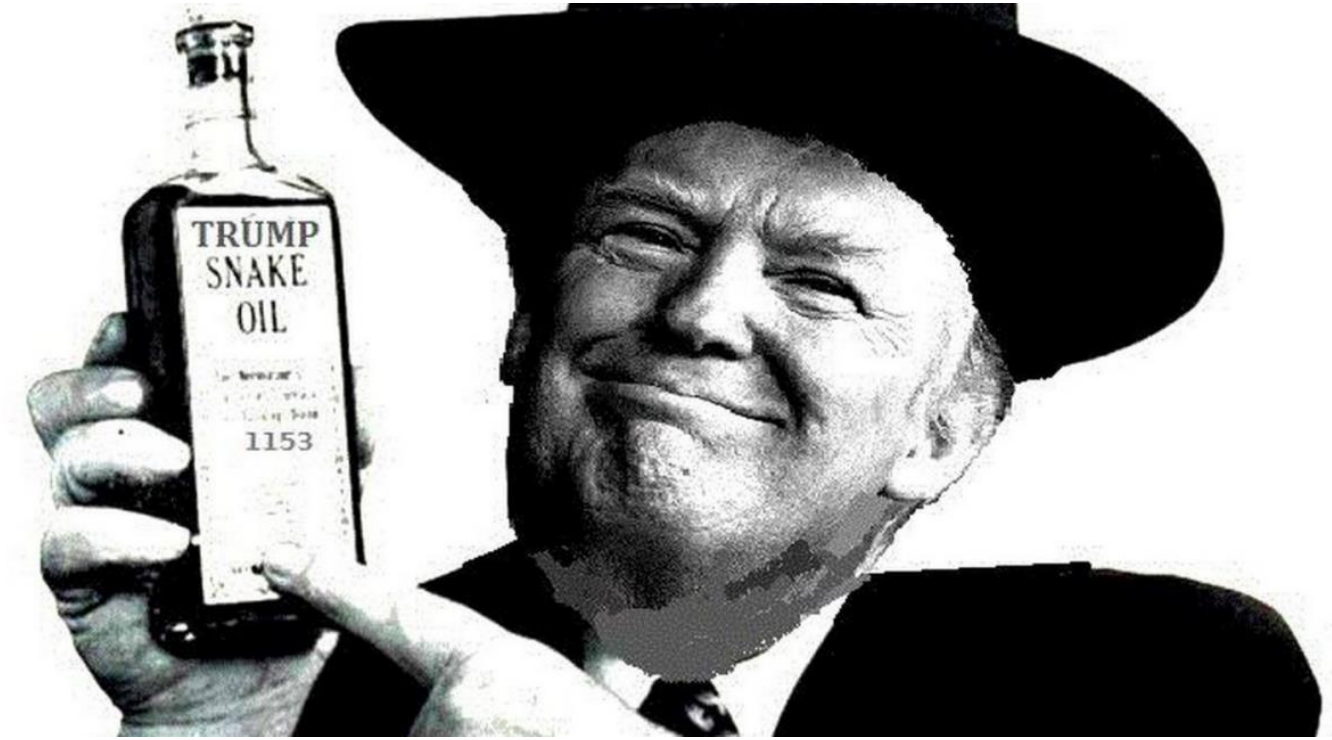
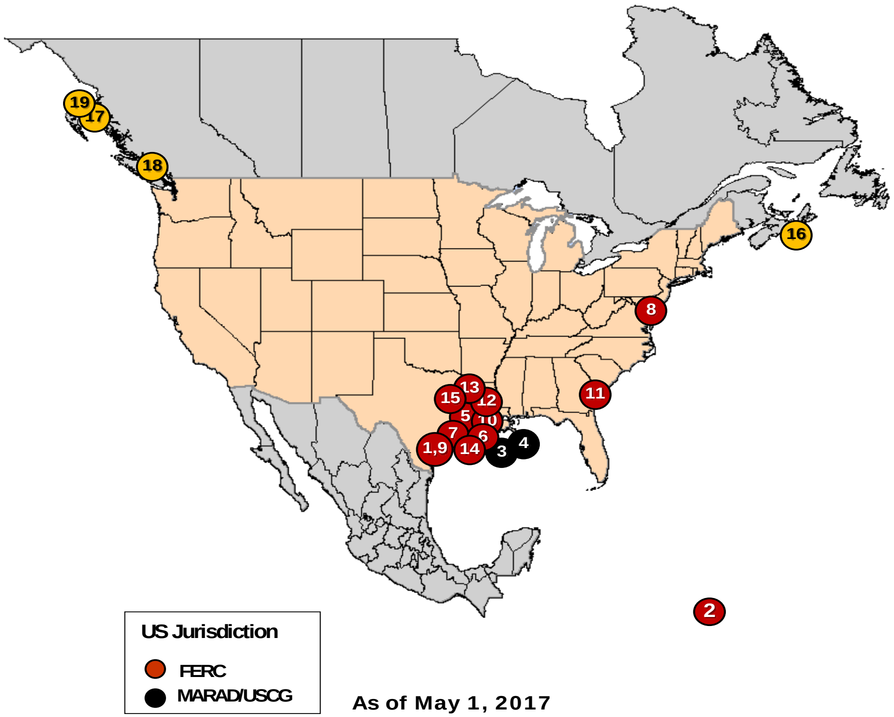
UNITED STATES LNG EXPORT POLICY AND TRENDS

“So if one of you need energy, just give us a call.”

Trump – Three Seas Initiative Summit, July 6, 2017



North American LNG Import/Export Terminals
Approved



As of May 1, 2017

Import Terminals

U.S.

APPROVED - UNDER CONSTRUCTION - FERC

1. **Corpus Christi, TX:** 0.4 Bcfd (Cheniere – Corpus Christi LNG) (CP12-507)

APPROVED – NOT UNDER CONSTRUCTION - FERC

2. **Salinas, PR:** 0.6 Bcfd (Aguirre Offshore GasPort, LLC) (CP13-193)

APPROVED - NOT UNDER CONSTRUCTION - MARAD/Coast Guard

3. **Gulf of Mexico:** 1.0 Bcfd (Main Pass McMoRan Exp.)
4. **Gulf of Mexico:** 1.4 Bcfd (TORP Technology-Bienville LNG)

Export Terminals

U.S.

APPROVED - UNDER CONSTRUCTION - FERC

5. **Sabine, LA:** 0.7 Bcfd (Cheniere/Sabine Pass LNG) (CP11-72 & CP14-12)
6. **Hackberry, LA:** 2.1 Bcfd (Sempra–Cameron LNG) (CP13-25)
7. **Freeport, TX:** 2.14 Bcfd (Freeport LNG Dev/Freeport LNG Expansion/FLNG Liquefaction) (CP12-509) (CP15-518)
8. **Cove Point, MD:** 0.82 Bcfd (Dominion–Cove Point LNG) (CP13-113)
9. **Corpus Christi, TX:** 2.14 Bcfd (Cheniere – Corpus Christi LNG) (CP12-507)
10. **Sabine Pass, LA:** 1.40 Bcfd (Sabine Pass Liquefaction) (CP13-552) ★
11. **Elba Island, GA:** 0.35 Bcfd (Southern LNG Company) (CP14-103)

APPROVED – NOT UNDER CONSTRUCTION - FERC

12. **Lake Charles, LA:** 2.2 Bcfd (Southern Union – Lake Charles LNG) (CP14-120)
13. **Lake Charles, LA:** 1.08 Bcfd (Magnolia LNG) (CP14-347)
14. **Hackberry, LA:** 1.41 Bcfd (Sempra - Cameron LNG) (CP15-560)
15. **Sabine Pass, TX:** 2.1 Bcfd (ExxonMobil – Golden Pass) (CP14-517)

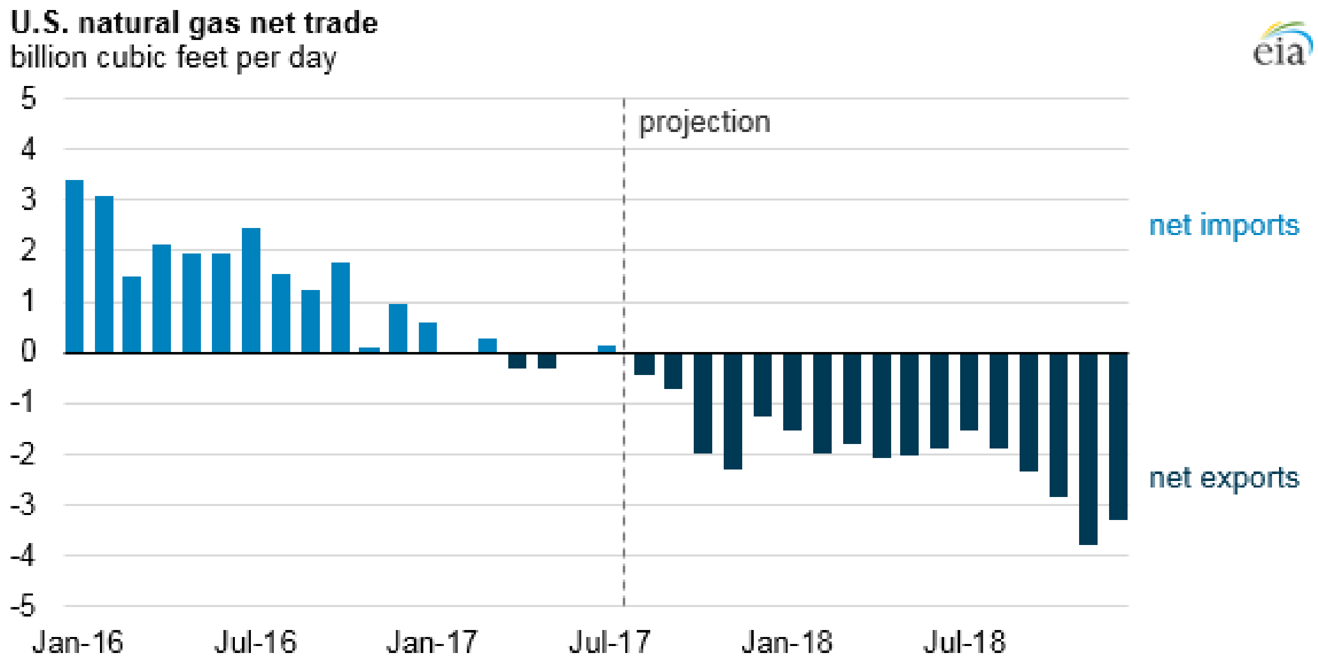
Canada

APPROVED – NOT UNDER CONSTRUCTION

16. **Port Hawkesbury, NS:** 0.5 Bcfd (Bear Head LNG)
17. **Kitimat, BC:** 3.23 Bcfd (LNG Canada)
18. **Squamish, BC:** 0.29 Bcfd (Woodfibre LNG Ltd)
19. **Prince Rupert Island, BC:** 2.74 Bcfd (Pacific Northwest LNG)

★ **Trains 5 & 6 with Train 5 under construction**

US BECOMES NET NG EXPORTER



- The United States has been a net exporter for 3 of the past 4 months and is expected to continue to export more natural gas than it imports for the rest of 2017 and throughout 2018.
- Gross LNG exports are expected to average 1.9 billion cubic feet per day in 2017, compared with 0.5 billion cubic feet last year, and rise to 2.8 billion cubic feet in 2018 as new LNG facilities come online.

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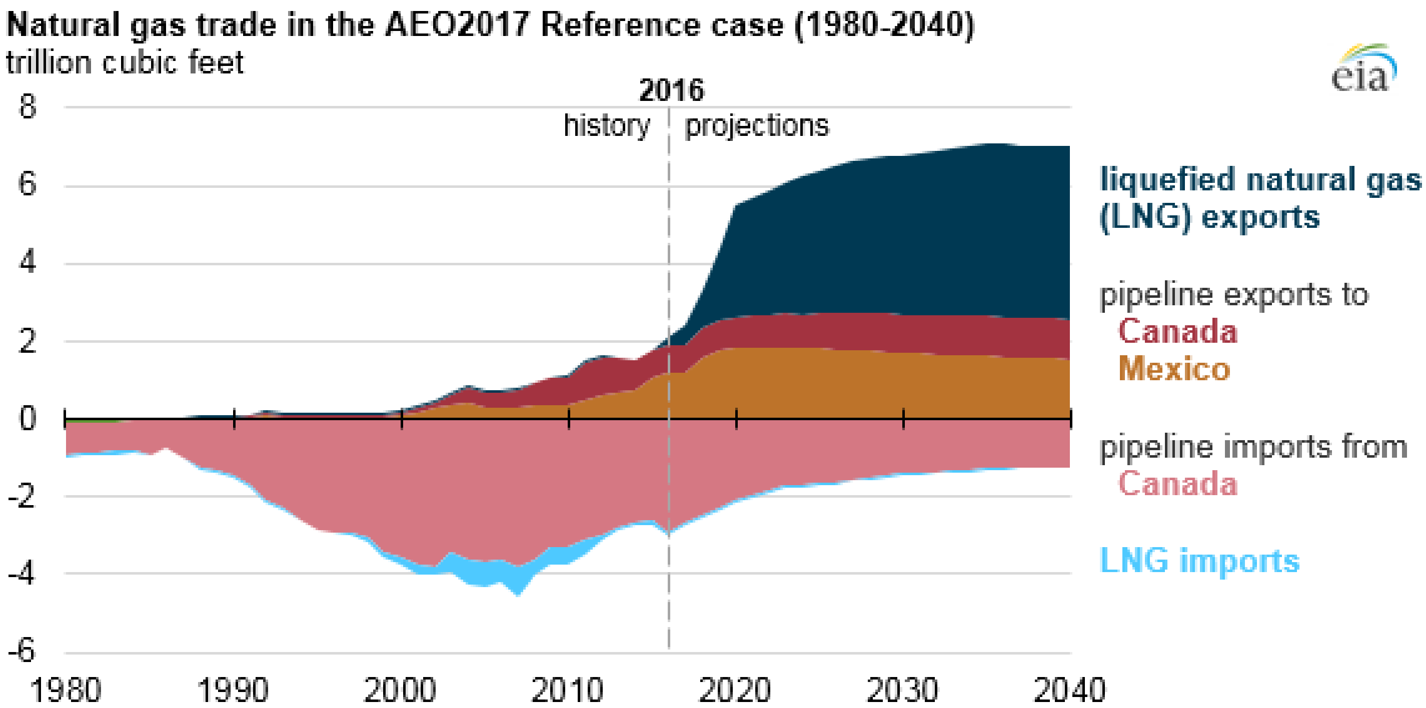
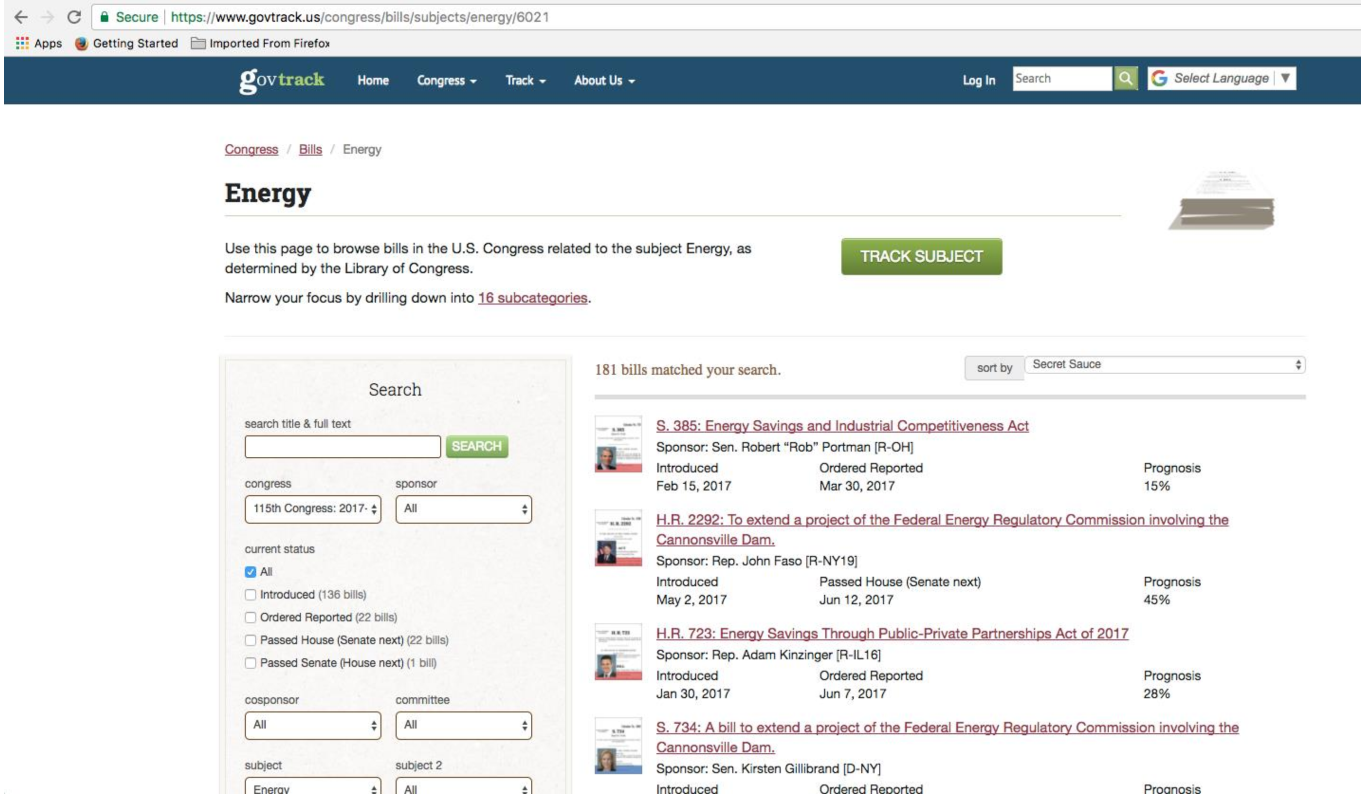


- Liquefied natural gas (LNG) is projected to dominate U.S. natural gas exports by the early-2020s. The first LNG export facility in the Lower 48 states, Sabine Pass, began operations in 2016, and four more LNG export facilities are scheduled to be completed by 2020.
- After 2020, U.S. exports of LNG grow at a more modest rate as U.S.-sourced LNG becomes less competitive in global energy markets.



115TH CONGRESS HAS BEEN VERY ACTIVE ON PROPOSED ENERGY LEGISLATION – 181 BILLS & RESOLUTIONS INTRODUCED in 2017

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SENATE BILLS

- **ENERGY AND NATURAL RESOURCES ACT OF 2017** – Cantwell (D-WA) and Murkowski (R- AK)
- **NATURAL GAS EXPORT EXPANSION ACT** – Cruz (R-TX)
- **LICENSE NATURAL GAS NOW ACT** – Cassidy (R-LA)

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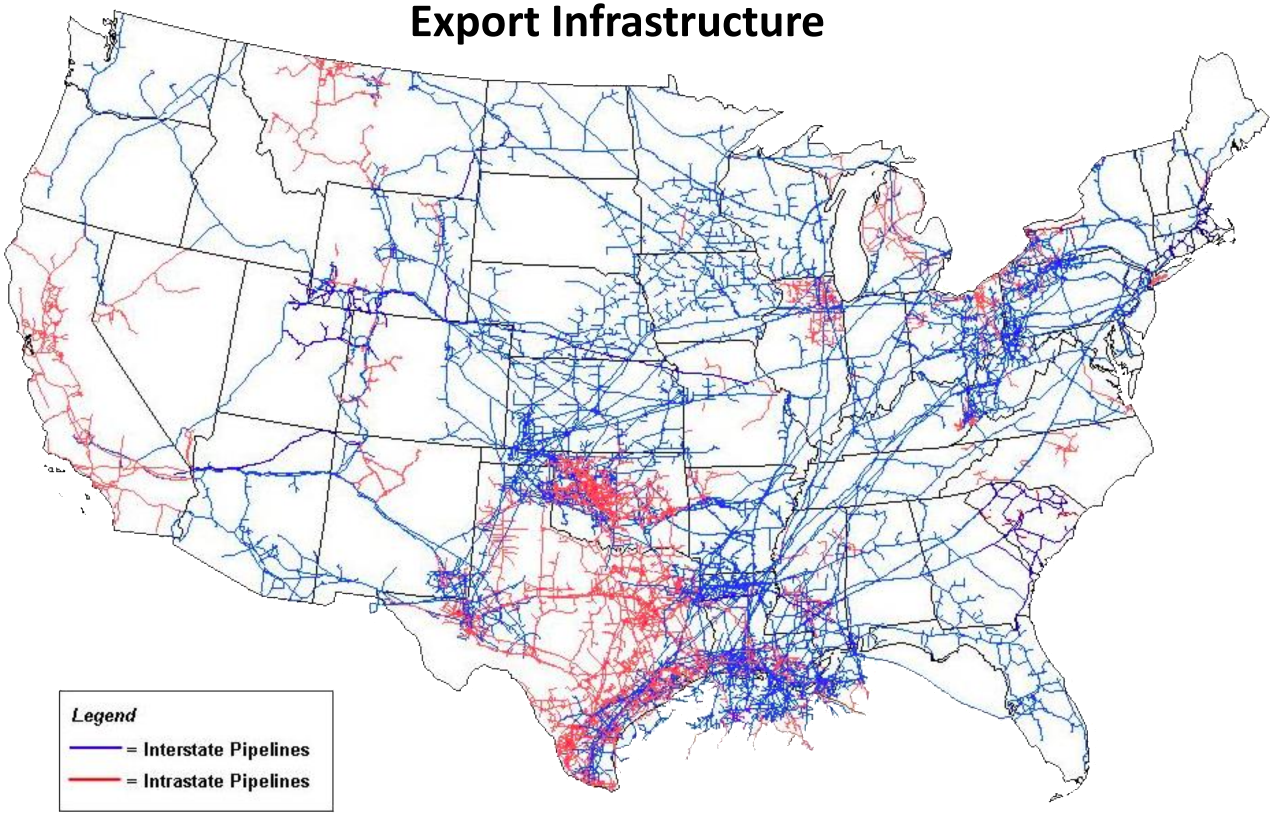
- Section 3 of the Natural Gas Act (NGA) (15 U.S.C. § 717b) prohibits the import or export of natural gas, including liquefied natural gas (LNG) from or to a foreign country without prior approval from the Department of Energy (DOE)
- Current law allows LNG exports to countries with whom the U.S. does NOT have a free trade agreement countries on a non-discriminatory basis, subject to a “public interest” analysis and approval by the U.S. Department of Energy

Legislative Effort to Allow for Removing Limitations on Infrastructure Buildout and Easing Export.

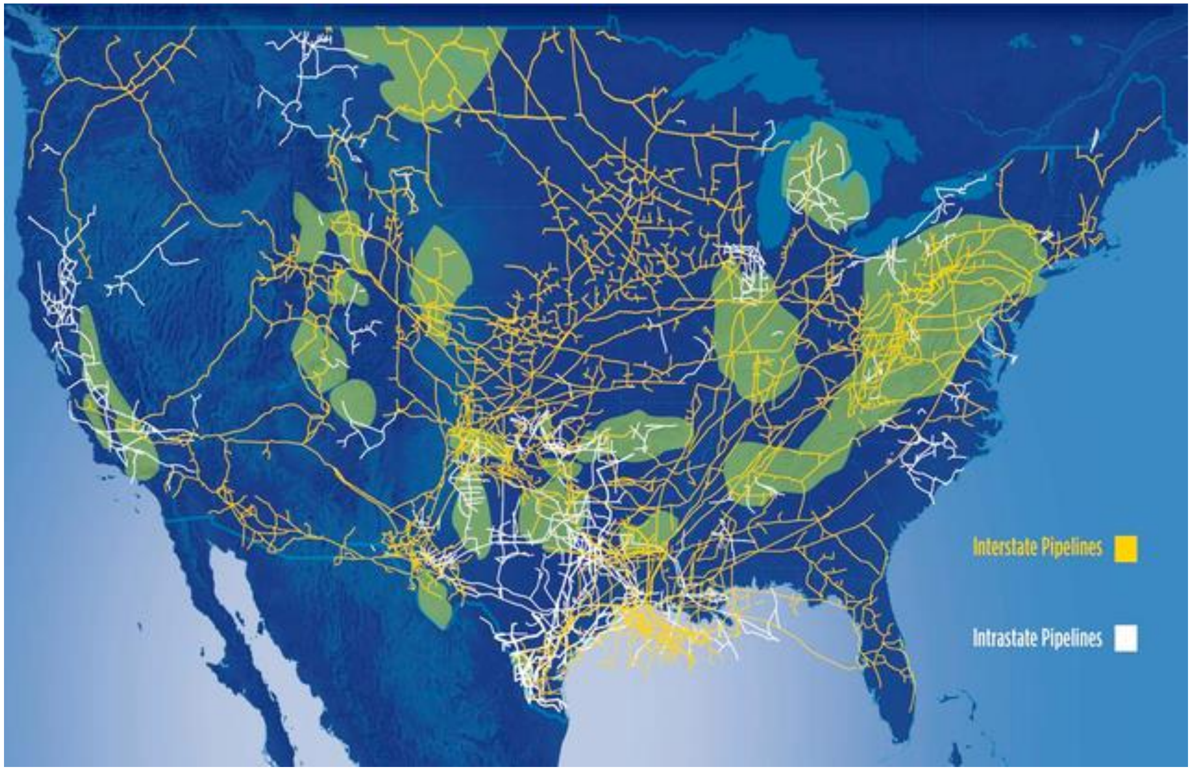
- Federal Energy Regulatory Commissions approves NG infrastructure projects
- Rubberstamp approach to approval, denying only 2 permits
- Largely staffed by industry insiders who perform shoddy, incomplete environmental impact assessment
- Very little Congressional oversite, formed as independent body
- Funding received from the industry its charged with regulating

Domestic Impacts of Expanded LNG Export Infrastructure



- **300,000 miles (482,803 km) of transmission and 2.1 million miles (3379622 km) of distribution NG pipelines**
- **Use of Eminent Domain for "Public Good"**

Gas Reserves and Domestic Pricing Growth



- The Energy Information Administration estimates that as of 2015, there were about 2.355 (Tcf) of technically recoverable NG
- At the rate of consumption in 2015 of about 27.3 Tcf per year, the US has enough natural gas to last about 86 years.
- **Approval of LNG exports to free trade agreement (FTA) and non-free trade agreement countries (NFTA) of 54 Bcf/d, which is 71 percent of 2016 U.S. natural gas demand.**
- **EIA is also forecasting Henry Hub natural gas prices will rise 87 percent by 2020.**

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Opposition to US Fossil Fuel Export

- **Anti- Eminent Domain Legislation – Republican Efforts to Limit Use for Private Profit**
- **Off Act – recent legislation that immediately bans all fossil fuel exports on the way to 100% renewable**

Economic Variables Effecting Export Trends

- US Domestic and Industrial Consumer Price Reaction to Exports
- Competition in the Expanding Asian Market with Qatar and Australia
- Russian Supply Reaction to Increased US Export Capacity – Short Term Contracts with Lower Prices