

Discussion Excerpts

Expediting Approval of Natural Gas Exports



"Congress must make proper investments in infrastructure and effectively reform regulations to aid in the export of liquefied natural gas (LNG)," said **U.S Representative Ted Yoho (R-FL-03)**. "The current permitting process for LNG export facilities is expensive, and small-scale projects often are not cost-effective under current conditions. Reducing the time and investment required for small-scale exports will benefit U.S. production, manufacturing, and create construction jobs while also reducing trade deficits with importing countries."

In March 2019, Rep. Yoho introduced the Small Scale LNG Access Act of 2019 (H.R. 1836). For an [OurEnergyPolicy.org](#) (OEP) discussion, he asked what the legislative branch can do to streamline and increase efficiencies within the LNG industry and what concerns or issues should be taken into account. The OEP community of energy professionals weighed in. This document features detailed excerpts from that discussion (with bold added for emphasis).

Follow hyperlinks to view the full comments and expert profiles, and read the entire discussion at www.ourenergypolicy.org/a-big-step-for-small-scale-lng.

Comment Excerpts

"Encouraging small-scale LNG industry is a good idea.... The targeted upper limit for the proposed legislation in H.R. 1836 is exactly right."

– [Vikram Rao](#), Executive Director, Research Triangle Energy Consortium - [Full Comment](#)

"If America plans to compete [with] the emerging low-carbon economies as they transition to LNG, we have to have more ports, and terminals with more flexible loading, bunkering, & transfer facilities."

– [William Ross Williams](#), Leader and Strategist, Altresco Companies - [Full Comment](#)

"When it comes to climate change, [natural gas] is about as bad as coal and when transported as LNG, it is clearly worse."

– [Dan Miller](#), Managing Director, The Roda Group - [Full Comment](#)

"It is time to stop building new fossil infrastructure for the climate and for the economy, too."

– [Jane Twitmyer](#), Principal, CACW/Watts - [Full Comment](#)

"Gas serves a market... different than what wind and solar can serve. It's currently the cheapest way to produce energy when the sun isn't shining and the wind isn't blowing...."

– [Roger Arnold](#), Systems Architect, Silverthorn Engineering - [Full Comment](#)

"If you are going to advocate for LNG infrastructure, you should couple it with strong support for renewable energy (solar and wind), nuclear power, and energy efficiency."

– [Michael S. Lubell](#), City College of the City University of New York - [Full Comment](#)

LNG Export Recommendations

Good idea to encourage small-scale LNG

"Encouraging small-scale LNG (ssLNG) industry is a good idea. Targeting the nations south of the U.S. is a win-win. The distribution and consumption of ssLNG adds an element of flexibility.... Due to economies of scale, the liquefaction process will inevitably be somewhat costlier per unit of output than in full-scale plants.... The DOE RAPID program uses this and other means to overcome economies of scale in small-scale processing.

"The targeted upper limit for the proposed legislation in H.R. 1836 is exactly right. It is roughly ten times smaller than conventional U.S.-based facilities. Vessels will also be commensurately smaller. **Commercial vessels already exist, and no development is needed. But new builds could also benefit from expedited approvals.**

All LNG transport and storage are at temperatures of -162 C. It is kept at these temperatures, not through active refrigeration, but by passive cooling caused by controlled evaporation. Large vessels have systems for recovery and use. As a target, all transport and storage systems must be regulated to capture the methane (they may well be today, but I am unaware)."

[Full Comment](#)

– [**Vikram Rao**](#), Executive Director, Research Triangle Energy Consortium

Need more ports & terminals and a standardized permitting package

"Dear Congressman Yoho, If America plans to compete [with] the emerging low-carbon economies as they transition to LNG, we have to have **more ports, and terminals with more flexible loading, bunkering, and transfer facilities**. We are a significant potential source, and yet, still one of the smallest contributors. These ports also **need to be set up for domestic shipping, rail, and trucking**.... Our abundant gas and LNG potential are not worth much if we can't get it from competitive U.S. producers and shippers to markets.... Based on the proven EU system, here is what we need:

1. A Standardized Permitting Package—one that can lay out the permitting steps and processes in a way that will allow effective planning by the proponents.
2. This would allow the guidelines to be clear and collaboratively established by all of the 'valid' stakeholders and potential intervenors.
3. Establish a dependable and transparent checklist that is pre-agreed on before starting the formal permitting processes.
4. A keystone of this 'Standard Permitting Package' will be a strict timeline for the various agreed-upon permitting activities identified in the first package.

"This should allow smaller ports and export terminals to get permitted, financed, constructed and [operate] on reasonable budgets for private industry." [Full Comment](#)

– [**William Ross Williams**](#), Leader and Strategist, Altresco Companies

LNG Export Concerns

LNG contributes to climate change more than coal; should not be expanded or incentivized

"Dear Congressman Yoho: While natural gas (NG) is 'clean burning' compared to coal and it generates about half the CO₂ per kWh of electricity generation within the power plant, **unfortunately, when it comes to climate change, NG is about as bad as coal and when transported as LNG, it is clearly worse.** Most climate scientists and policymakers globally recognize that we must be at net-zero emissions by 2050 if we want to have even a chance of staying under +2°C warming (and even +2°C warming would be catastrophic). Therefore, even a power source that (theoretically) produces half the CO₂ of coal is **still too much and we should not be building long-term infrastructure to support it.**

"But add to that the fact that **NG has 'fugitive emissions'** from leaks and releases during exploration, extraction, transport, and use.... And on top of that, when **transported as LNG, it takes considerable energy to compress and cool the NG and this adds to its life-cycle emissions.** So LNG is **clearly worse than coal when it comes to its climate change impacts.**

"Accelerating climate change poses a **clear and present danger** to the United States and its citizens. **We should not be incentivizing products that increase that danger.**" [Full Comment](#)

– [Dan Miller](#), Managing Director, The Roda Group

Natural gas will become uncompetitive because of climate impacts

"Congressman Yoho, **An investment in 40–50-year infrastructure that won't be competitive in 10 years doesn't make a lot of sense....** Today, solar and storage is already competitively replacing gas 'peaker' plants.... The IPCC [Intergovernmental Panel on Climate Change] tells us that building and using new fossil fuel infrastructure for the next four decades is incompatible with current climate goals. Much of the planned and existing oil and gas infrastructure will have to be abandoned before the end of its usable life, becoming what is known as 'stranded assets.' **It is time to stop building new fossil infrastructure for the climate and for the economy, too.**" [Full Comment](#)

– [Jane Twitmyer](#), Principal, CACW/Watts

LNG is environmentally problematic; better to focus efforts elsewhere

"Dear Congressman Yoho: LNG originates from freezing methane via fractional methodology, **utilizing extensive corrosive chemical materials which eventually compete with water supply for local USA communities.** USA LNG export is now a global issue, because of China's objective to reduce CO₂ emissions. Australia is most willing to supply the LNG China needs in the near future. If utility systems are failing in the USA, **should not the energy supply system to USA communities be the priority**, to provide help for the USA citizens, not for external business benefit?" [Full Comment](#)

– [Wayne Moody](#), Business Development Manager, Vorsana Inc.

LNG With Climate Constraints

Couple LNG support with support for climate change solutions

"Congressman Yoho: We have had a number of discussions about the role of American science in the world and the need for federal support for the enterprise, which you have endorsed. I thank you for that support. On the matter of LNG, **I agree that in the short term, natural gas is better fuel than coal from the standpoint of carbon emissions. But in the long term, it is not going to address the profound impact of climate change.** If you are going to advocate for LNG infrastructure, you should **couple it with strong support for renewable energy (solar and wind), nuclear power, and energy efficiency....**" [Full Comment](#)

- [Michael S. Lubell](#), Professor of Physics, City College of the City University of New York

Natural gas has a role, but policy should focus on addressing its climate problems instead of expanding exports

"I share the reservations....regarding investment in 40–50-year infrastructure for something that won't be competitive in 10 years. However I don't see the issue in terms of wind and solar becoming 'cheaper than gas'.... **Gas serves a market that is, by definition, different than what wind and solar can serve. It's currently the cheapest way to produce energy when the sun isn't shining and the wind isn't blowing. Its competition is large-scale energy storage or next-generation nuclear....**

"But any long-term future must be tied to addressing the problem of fugitive emissions and implementing carbon sequestration. It's entirely possible to reform natural gas into separate streams of hydrogen and CO₂.... The CO₂ waste stream produced from this approach to reforming is 'pipeline ready' CO₂ that requires nothing more than transport and compression before injection into depleted gas fields or deep saline aquifers. **It would be far better policy, IMO [in my opinion], for oil and gas companies to be focusing on those technologies rather than LNG exports.** They are already well experienced in the required technologies." [Full Comment](#)

- [Roger Arnold](#), Systems Architect, Silverthorn Engineering

The quotes in this document are excerpts from comments posted May 21–June 20, 2019, in the online discussion, "[A Big Step for Small-Scale LNG](#)," by registered members of OurEnergyPolicy.org's energy professionals community. The discussion was hosted for U.S. Representative Ted Yoho (R-FL-03).



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