GREENPEACE

ANALYSIS

Department of Energy used gas industry insiders and consultants to build the case for soaring LNG exports

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Overview

For roughly the past decade, in the absence of a specifically articulated policy for reviewing liquefied natural gas (LNG) export applications, the Department of Energy (DOE) has adopted a *de facto* rubber stamping policy via standards that have not been fully explained to the public.

To justify its track record of universally approving LNG export applications, DOE has relied on a series of economic and environmental studies commissioned by the agency and prepared with support from gas industry insiders and consultants.

DOE's most routinely cited economic studies, published in 2012 and 2018,[1] were authored by a NERA Economic Consulting team that included W. David Montgomery and Paul Bernstein, who have been called the oil & gas industry's "go-to" economists. Montgomery and Bernstein were hired by the American Petroleum Institute throughout the 1990s to write studies used to weaken, defeat, and delay climate policy. One of their studies from 2017 was even used by former president Trump to justify exiting the Paris Agreement.

DOE has also routinely cited an environmental study, published in 2019, that was supported by a team from KeyLogic Systems that did overlapping business with the gas industry between 2017 and 2020 (exact dates unknown). Of the five total authors, three others are now employed by the gas industry including one at Cheniere, the largest U.S. LNG exporter.

Both the economic and environmental studies are severely flawed. The economic studies have been challenged by advocacy organizations for using unrealistically high gas demand projections, failing to account for the projected benefits of climate policy, and concluding that the burden of higher energy costs for U.S. consumers would be offset by increased income from holding shares in LNG companies. The 2019 environmental study, as well as a 2014 DOE-commissioned study preceding it, has been challenged for using very low estimates of methane leakage in the LNG supply chain, which underestimate the climate impacts of LNG, and for failing to consider the manner in which increased LNG exports can drive up total fossil fuel use.

These deficiencies, combined with DOE's choice to commission the studies from contractors with apparent conflicts of interest, suggest that DOE's public interest determinations pertaining to approved LNG projects rest on a foundation of biased information.

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[1] See, for example, citations in Sabine Pass (2015), Freeport LNG (2016), Corpus Christi (2016), and Magnolia (2022).

For ten years, DOE routinely dismissed calls for transparency and updated rulemaking, which conservation groups first submitted in 2013. The Biden Administration's LNG pause indicates a new understanding that the past system was inadequate, and now is the time for DOE to close the door on these outdated studies.

Throughout the process of re-evaluating its LNG policy, DOE must prevent the gas industry and its network of consultants from unduly influencing its new analysis, and ensure that this analysis fully accounts for the broad climate, equity, and public health impacts of LNG. Moreover, it is essential for DOE to require full participation from DOE offices beyond Fossil Energy & Carbon Management (FECM), such as the Office of Energy Justice and Equity and the Office of State and Community Energy Programs, and to facilitate an inclusive process with participation from environmental justice communities and other stakeholders outside the gas industry.

Behind the NERA economic studies

- Since 2012, DOE FECM has commissioned three studies that focus on the macroeconomic impacts of LNG exports. The first of these studies, published in 2012, was performed by a NERA Economic Consulting team led by W. David Montgomery; the second study, published in 2015, was performed jointly by the Center for Energy Studies at Rice University's Baker Institute and Oxford Economics; and the third study, published in 2018, was again performed by NERA Economic Consulting through DOE's support contractor KeyLogic Systems Inc.
    - KeyLogic, which also supported DOE's 2019 environmental study, is investigated further in the next section.

- **NERA has a long history of working for the gas, coal, and tobacco industries, and has produced numerous reports that have been characterized as "inaccurate" and "misleading."**
    - In the 1990s, NERA published a report claiming there was no connection between tobacco advertising and smoking levels.
    - President Trump cited negative economic statistics from a 2017 NERA report sponsored by the oil industry-funded American Council for Capital Formation think tank and the U.S. Chamber of Commerce in his speech announcing that the United States intended to withdraw from the Paris climate accord

- **Cheniere, the top U.S. LNG exporter, paid NERA to publish an updated version of its DOE study in 2014.**
    - In that year, W. David Montogery, one of the report authors, testified before a Senate committee that "unlimited" LNG exports benefit the U.S. economy and "the less regulators restrict U.S. exports, the greater the benefits from natural gas production."

- **Montgomery, the 2012 project lead and author on NERA's three LNG studies, and Paul Bernstein, another prominent author on the studies, have been called the oil & gas industries "go-to" economists by Benjamin Franta, an expert in oil & gas industry disinformation and climate delay.**

- According to a 2022 peer-reviewed article authored by Franta, these economists played a "key role helping to undermine carbon pricing, international climate agreements, and other climate policies from the early 1990s onward." More specifically, Franta identifies Montgomery and Bernstein as prominent examples of economists hired by the fossil fuel industry to produce "biased" economic analyses that inflate the predicted costs of climate policies while ignoring their benefits in order to weaken, defeat, and delay climate policy.
- In a 2017 blog post, Franta highlighted the frequency with which Montgomery and Bernstein accepted work from the American Petroleum Institute in the 1990s. "Whenever the threat of climate policy arose, the American Petroleum Institute hired one or both of these economists to pen a report claiming high costs and recommending policy delay. This strategy was used in 1991 against carbon dioxide control, in 1993 against the Clinton Administration's proposed BTU tax, in 1996 against the goals of the U.N. Conference of Parties in Geneva, in 1997 against the goals of the U.N. Conference of Parties in Kyoto, and in 1998 against the Kyoto Protocol's implementation."
- Montgomery, Bernstein, and two of their three co-authors on the 2018 study also jointly authored the 2017 NERA report that Trump used to justify exiting the Paris Agreement.

- **The NERA studies use incomplete models and problematic assumptions that are inherently biased toward showing that any limitations on LNG exports hurt economic growth.**
  - Several methodological flaws are pointed out in a public comment on the 2018 study submitted by Oil Change International and Food & Water Watch on behalf of more than 60 concerned organizations. These flaws include failing to estimate the economic *costs* associated with global warming and air pollution, which are necessary to assess whether LNG exports are economically beneficial overall; using unrealistically high gas demand projections; and failing to account for renewable energy growth.
  - The NERA studies have been challenged by Sierra Club and Public Citizen for concluding that the burden of higher energy costs for U.S. consumers would be offset by increased income from holding shares in LNG companies. (The absurdity here is underscored by the fact that, as of January 2024, 10% of the U.S. population own 93% of stock wealth.)
  - According to Franta (2022), the models that Montgomery and Bernstein used in the 1990s relied on the "illogical" assumption that emissions reductions were achieved primarily by reducing energy use (as opposed to switching to renewable energy sources). Similarly, it is unclear whether the newer LNG-focused studies account for the potential for economic losses in the LNG sector to be substituted with gains in other sectors (such as renewable energy).

- **The economic metrics used by the DOE and NERA (e.g., net economic impact) are insufficient for making a public interest determination because they do not account for consumer well-being, environmental justice, or other distributional impacts.**
  - The DOE has acknowledged the importance of distributional impacts before, stating that "there may be circumstances in which the distributional consequences of an authorizing decision could be shown to be so negative as to outweigh net positive benefits to the U.S.

economy as a whole." But it has not adopted a framework that considers distributional impacts in practice.
    - DOE's own research, including the NERA studies and a study performed by U.S. EIA, shows that LNG exports raise household energy costs.
    - Peer-reviewed research indicates that pollution associated with the oil and gas supply chain disproportionately impacts communities of color and low-income communities.

Behind the KeyLogic/Booz Allen Hamilton environmental studies

- The LNG life cycle emissions studies commissioned by DOE FECM were published in 2014 and 2019. Both studies were prepared by the National Energy Technology Laboratory (NETL) with support from a team of consultants led by Joe Marriott (2010–2017) and Greg Cooney (2017–2020). This team started at Booz Allen Hamilton, which was contracted for the 2014 study, and moved to KeyLogic Systems in 2016 after KeyLogic was awarded a $112 million NETL contract, which paid for the 2019 study and other projects.[2]

- **In between co-authoring the 2014 study with Booz Allen Hamilton and leading the KeyLogic team that supported the 2019 study, Cooney took a full-time position at the gas company EQT Corporation for 11 months.**
    - EQT is one of the companies that is most actively opposing the LNG pause.

- **The KeyLogic team was doing business with the gas industry while KeyLogic was fulfilling the DOE/NETL contract that paid for the 2019 study.**
    - According to LinkedIn, Cooney led business development for KeyLogic Inc. to "expand services into the commercial market and successfully contract[] with two major oil and gas clients to provide LCA support," in addition to leading his team's work for DOE/NETL.[3] **Competing interest disclosures from a later project suggest that these clients were Cheniere and Saudi Aramco.**[4]
    - The same former KeyLogic employees who disclosed this commercial work were also heavily involved with the DOE/NETL 2019 study.

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[2] The authors listed on the 2014 study are Timothy J. Skone (NETL) and Gregory Cooney, Matthew Jamieson, James Littlefield, and Joe Marriott (then employed by Booz Allen Hamilton). Jamieson, Littlefield, and Marriott moved to KeyLogic in July 2016, about two months after it was announced that KeyLogic was awarded the five-year mission execution and strategic analysis (MESA) contract with NETL. Cooney first took a position at the gas company EQT Corporation in August 2016 and then joined the KeyLogic team as its principal engineer and team lead in June 2017. The listed authors on the 2019 study are Selina Roman-White, Srijana Rai, Littlefield, Cooney, and Skone (all employed by KeyLogic except for Skone). Don Remson (NETL) and Marriott (KeyLogic) are acknowledged for their "overall guidance and review of draft versions" of the 2019 report.

[3] Based on Cooney's tenure at KeyLogic, it can be concluded that these commercial contracts were active between June 2017 and December 2020 (exact dates unknown). This timespan fully overlaps with KeyLogic's DOE/NETL contract, which was ongoing from July 2016 through March 2023.

[4] Greenpeace USA has concluded that Roman-White and Littlefield were likely consulting for Cheniere and Saudi Aramco while working at KeyLogic between 2017 and 2020 based on their professional histories and information from Cooney's LinkedIn profile.

- **Of the five total authors of the 2019 study, three are now employed by the gas industry, and Cooney is now employed by DOE FECM.**
    - The first listed author, Selina Roman-White, took a full-time position at Cheniere in May 2021. Another one of the authors, Littlefield, took a full-time position at Aramco Americas in June 2021. These are the same former KeyLogic employees who disclosed that they consulted for Cheniere and Saudi Aramco before taking full-time positions at the companies.
    - In March 2022, their co-author Srijana Rai took a position at GTI Energy, a think tank representing the gas industry.
    - In December 2020, Cooney left KeyLogic to work as an independent consultant for the chemical company DuPont. In September 2021, he took a position at DOE FECM as Senior Engineer supporting life cycle assessment efforts for the Policy & Analysis team.

- **The studies use very low estimates of methane leakage in the LNG supply chain, which likely underestimates LNG's true climate impact.**
    - The 2019 study estimates that cradle-through-transmission methane emissions for U.S. gas delivered to liquefaction terminals are only 0.7%. This value is taken from EPA data that have been shown to systematically underestimate methane emissions from oil and gas.[5] The report focuses on data from 2016 and also cherry-picks EPA data from a lower-emissions basin, ignoring the recent surge in gas production from regions with much higher methane emissions that are supplying gas for LNG exports. The most advanced study to-date, which incorporated nearly a million aerial measurements of methane emissions, concluded that the methane leak rate across six U.S. regions was 2.95% (95% CI 2.79%, 3.14%).

For further information

This analysis is published by Greenpeace USA. Research contributed by Andres Chang and Tim Donaghy. For media inquiries please contact Katie Nelson (knelson@greenpeace.org). April 2024.

[5] Alvarez et al. 2018; Rutherford et al. 2021