

## LNGStudy

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VIA EMAIL

The Honorable Steven Chu  
Secretary of Energy  
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Dear Mr. Secretary:

I am a managing economist at Nathan Associates Inc. and an adjunct professor of economics and business administration at Portland State University. As an economics consultant, I have been engaged in numerous projects involving the energy sector, including competitive analysis of the Exxon-Mobil and BP-Arco mergers, an investigation in the causes of periodic "spikes" in the retail price of California gasoline, and a calculation of the impacts of increased leasing and permitting on Federal lands in the U.S. West. In addition, I have conducted many studies of the impacts of economic activity and regulation. In particular, I have authored a widely cited comprehensive econometric analysis of the impact of natural gas pipelines on residential property values.[1]

The U.S. Department of Energy (DOE) has released a comprehensive study by NERA of the economic effects of overseas sales of liquefied natural gas (LNG). NERA was asked by DOE to evaluate the macroeconomic impact of the exporting of LNG under a variety of scenarios, including both high and low levels of energy demand, natural gas production, and daily export volume.

The following are my conclusions based on a review of the study and my own work in the energy sector. They do not represent the views of Portland State University, Nathan Associates, or any of their staff.

- **The U.S. has vast resources of natural gas.** In August 2012, the Energy Information Administration (EIA) reported that natural gas proved reserves have increased in every year since 1999, with the pace accelerating in recent years such that proved reserves of natural gas are at an all time high.[2]
- **Exports of natural gas will improve the U.S. balance of trade.** An improved balance of trade would represent a net transfer of income and wealth into the U.S. In addition, capital investment associated with liquefaction facilities to produce LNG would provide additional opportunities for income to flow into the U.S.
- **The NERA study underestimates the extent of potential capital investment in expanded pipelines and pipeline capacity.** For example, in Oregon, several enterprises are in the process of siting LNG terminal facilities for import and export. A key component of these projects is the construction of natural gas pipelines connecting the proposed terminal with existing U.S. supplies of natural gas. The NERA model appears to assume no additional pipeline construction and, therefore, likely underestimates the economic benefits associated with natural gas exports.
- **The benefits associated with export expansion more than outweigh any potential losses.** In every single scenario examined by NERA, the benefits of export expansion outweighed the costs. Indeed, the

study finds net economic benefits increased as the level of LNG exports increased. This should not be surprising as it is consistent with more than 200 years of economic theory and study.

- **Even if exports cause natural gas prices to increase, the benefits associated with export expansion more than outweigh any potential losses.** If domestic natural gas prices were to be pulled up by LNG exports, the value of exported natural gas also rises so that there is a net gain for the U.S. economy, as shown in Figure 2 of the NERA study and as measured by widely used metrics such as real household income or real GDP.

Mr. Secretary, the economic evidence is mounting that the U.S. will benefit from expanded natural gas exports. The NERA study comprehensively supports well-known economic principles that expanded trade provides well-known and widely distributed benefits among the trading partners.

Respectfully submitted by:

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Citations:

[1] Eric Fruits (2008). Natural Gas Pipelines and Residential Property Values: Evidence from Clackamas and Washington Counties. [papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1518065](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1518065).

[2] Energy Information Administration (2012). U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Proved Reserves, 2010. [www.eia.gov/naturalgas/crudeoilreserves/pdf/uscrudeoil.pdf](http://www.eia.gov/naturalgas/crudeoilreserves/pdf/uscrudeoil.pdf).