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Subject: 2012 LNG Export Study
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Attachments: [ACCF Comments for DOE on LNG Exports Jan 24 2013.pdf](#)
Importance: High

Dear Sir:

Attached please find comments from the American Council for Capital Formation on the DOE study on LNG exports. If you need a word file just let me know.

If you could let me know that you have received our comments I would very much appreciate it.

Regards,

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Increased U.S. Exports of Liquefied Natural Gas Will Boost Economic Growth and Improve the U.S. Trade Balance

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Two recent Department of Energy Studies, “Effect of Increased Natural Gas Exports on Domestic Energy Markets”¹ and “Macroeconomic Impacts of LNG Exports from the United States”² provide insight on the effect of increased U.S. exports of liquefied natural gas (LNG) and the potential impact on domestic natural gas prices and the overall U.S. macroeconomy. The results of DOE’s macroeconomic study, which was prepared by NERA Economic Consulting, are in line with well-known facts regarding the merits of free trade: *“Across all these scenarios, the U.S. was projected to gain net economic benefits from allowing LNG exports. Moreover, for every one of the market scenarios examined, net economic benefits increased as the level of LNG exports increased. In particular, scenarios with unlimited exports always had higher net economic benefits than corresponding cases with limited exports. In all of these cases, benefits that come from export expansion more than outweigh the losses from reduced capital and wage income to U.S. consumers, and hence LNG exports have net economic benefits in spite of higher domestic natural gas prices. This is exactly the outcome that economic theory describes when barriers to trade are removed.”*³

These DOE studies strengthen and confirm many of the points highlighted in previous studies conducted on the topic:

- **Small Price Impact:** As noted in a NERA report, across various scenarios, the increase in U.S. wellhead prices in 2035 is no more than \$1.09/Mcf (in \$2010).⁴ This relatively small price impact might be partly due to the changing elasticity of supply in the North American gas market resulting from the emergence of large shale plays. In fact,

¹ “Effect of Increased Natural Gas Exports on Domestic Energy Markets,” Energy Information Administration, U.S. Department of Energy, January 2012, http://www.eia.gov/analysis/requests/fe/pdf/fe_lng.pdf

² “Macroeconomic Impacts of LNG Exports from the United States,” NERA Economic Consulting, December 2012, http://www.fossil.energy.gov/programs/gasregulation/reports/nera_lng_report.pdf

³ NERA, pg. 1.

⁴ NERA, pg. 11.

according to a recent Baker Institute Report,⁵ *“the elasticity of supply in the U.S. post shale has risen over five-fold, from 0.29 to 1.52...This in turn has effectively stretched the domestic supply curve, rendering it relatively flat at a price between \$4 and \$6 per mcf.”*

Another possible reason for the smaller price increase is the way in which export demand is met. As noted in the Brookings Report,⁶ *“both Deloitte and EIA found that the majority—63 percent, according to both studies— of the exported natural gas will come from new production as opposed to displaced consumption from other sectors.”*

These two points are also confirmed by a recent modeling exercise conducted by the Deloitte Center for Energy Solutions and Deloitte MarketPoint LLC. The Deloitte analysis, which assumes 6 bcf/d of LNG exports from the U.S., concludes: *“The projected increase of average U.S. prices from 2016 to 2030 is about \$0.15/MMBtu, while the corresponding price decrease in importing countries could be several times higher. ...the price impact in the U.S. is projected to be fairly minimal because of the large size of the North American resource base and responsiveness of the U.S. gas market to price signals.”*⁷

- **Job Creation:** Increased oil and gas production in recent years has been one bright spot in a struggling U.S. economy. According to a PricewaterhouseCoopers Report, in 2011, US oil and natural gas industry's total employment impact to the national economy, combining the operational and capital investment impacts, amounted to 9.6 million full-time and part-time jobs, accounting for 5.5 percent of the total employment in the country.⁸ Unconventional energy activity has been a big part of this trend. According to a recent IHS report,⁹ unconventional energy activities supported more than 1.7 million jobs in lower 48 U.S. states. Possible increase in U.S. exports supported by increased energy production will no doubt create more American jobs.

The recent developments in unconventional activity also spurred the growth in natural gas liquids- ethane, propane, butanes and light naphtha. These are important feedstock to petrochemical industry. As mentioned in a recent American Chemistry Council Study, a 25 percent increase in ethane production would yield a \$32.8 billion increase in U.S.

⁵ “U.S. LNG Exports: Truth and Consequence,” Kenneth B. Medlock III, James A. Baker Institute for Public Policy, Rice University, August 2012, pg 14-15, http://bakerinstitute.org/publications/US%20LNG%20Exports%20-%20Truth%20and%20Consequence%20Final_Aug12-1.pdf

⁶ “Liquid Markets: Assessing the Case for U.S. Exports of Liquefied Natural Gas,” Charles Ebinger, Kevin Massy and Govinda Avsarala, Brookings Energy Security Initiative, May 2012, pg. 33, <http://www.brookings.edu/research/reports/2012/05/02-lng-exports-ebinger>

⁷ “Exporting the American Renaissance: Global Impacts of LNG Exports from the United States,” Deloitte Center for Energy Solutions, 2013, pg 2-3, https://www.deloitte.com/assets/Dcom-UnitedStates/Local%20Assets/Documents/Energy_us_er/us_er_GlobalImpactUSLNGExports_AmericanRenaissance_Jan2013.pdf

⁸ “Economic Impacts of the Oil and Natural Gas Industry on the US Economy in 2011,” PricewaterhouseCoopers, December 2012, http://www.api.org/~media/Files/Policy/Jobs/Economic_Impacts_ONG_2011.pdf

⁹ “America’s New Energy Future: The Unconventional Oil and Gas Revolution and the U.S. Economy,” IHS Report, October 2012.

chemical production.¹⁰ With additional markets brought by U.S. LNG exports, production of additional natural gas liquids will benefit the U.S. petrochemical industry.

Some opponents of LNG exports in the petrochemical industry claim that possible increases in natural gas prices might negatively impact their investment and production. The current and future predicted price spread shows that this is not a cause for alarm. As noted in Brookings report *“The evidence suggests that the competitive advantage of U.S. industrial producers relative to its competitors in Western Europe and Asia is not likely to be affected significantly by the projected increase in natural gas prices resulting from LNG exports. As European and many Asian petrochemical producers use oil-based products such as naphtha and fuel oil as feedstock, U.S. companies are more likely to enjoy a significant cost advantage over their overseas competitors. Even a one-third decline in the estimated price of crude oil in 2035 would result in an oil-to-gas ratio of 14:1.”*¹¹

- **Government Revenues:** Recent increases in energy production, especially unconventional energy, has been an increased source of revenue at both the state and federal levels. According to an IHS report, in 2012, government revenues provided by unconventional oil and gas activity are projected to reach over \$63 billion and will continue to increase, reaching \$125 billion in 2035. During the entire 23-year projected horizon of the IHS study, this activity is expected to generate over \$2.5 trillion in total government revenues.¹² Allowing natural gas exports will increase these revenues further. According to estimates provided by Michael Levi, assuming 6 bcf of daily U.S. natural gas exports, exports would raise approximately \$1.4 billion each year in corporate income taxes (although it might be a little less in practice, since some of the profits accrue to individual property owners who might face tax rates less than the 35% corporate rate).¹³ Increased production would also boost state revenues from severance taxes.
- **Geopolitical Benefits:** Encouraging the exports of LNG will strengthen the U.S. hand in trade negotiations and is in line with general U.S. policy on global free trade. Limiting U.S. exports of LNG is akin to the concept than China restricting its rare earth minerals exports. Chinese restrictions had been a focal point in WTO discussions in recent years, brought forth by the U.S., EU and Japanese complaints. Contradictory actions by U.S., in terms of limiting LNG exports, would weaken its position in promoting global free trade.

Bigger U.S. presence in the global LNG market will also increase the diversity of supply for major importers, helping our allies with their energy security and energy

¹⁰ “Shale Gas and New Petrochemicals Investment: Benefits for the Economy, Jobs, and US Manufacturing,” American Chemistry Council, March 2011, <http://www.americanchemistry.com/ACC-Shale-Report>

¹¹ Ebinger et al. pg 35.

¹² “America’s New Energy Future: The Unconventional Oil and Gas Revolution and the U.S. Economy, Volume 2: State Economic Contributions” IHS Report, December 2012, <http://www.ihs.com/images/Americas-New-Energy-Future-State-Main-Dec-2012.pdf>

¹³ “A Strategy for U.S. Natural Gas Exports,” Michael Levi, Hamilton Project, June 2012, pg 24-25, <http://www.brookings.edu/research/papers/2012/06/13-exports-levi>

expenditures. The recent increase in North American shale production has been one of the reasons for weakening the Russian hand in their gas price negotiations with EU.¹⁴

Increased U.S. exports of LNG will also likely to help to reduce the U.S. trade deficit. According to an ICF study, exports of 750 mmcf of LNG are associated with annual trade gains to the U.S. of \$2.8-\$7.1 billion.¹⁵

Conclusions

As described above, recent economic analyses conclude that allowing exports of U.S. LNG to increase will raise household's real income and boost U.S. GDP. Further, the natural gas price increases associated with higher U.S. LNG exports are not large enough to make US. petrochemical and plastic producers uncompetitive with Asian and European producers. Finally, increased LNG exports will strengthen the U.S. relations with other countries and weaken the geopolitical influence of LNG exporters such as Russia and Iran.

¹⁴ <http://www.guardian.co.uk/environment/2012/nov/15/gazprom-chill-shale-gas-revolution>

¹⁵ LNG Exports from North America: Economics and Market Impacts, presentation, pg 28, http://www.usea.org/sites/default/files/event-file/511/Vidas_ICF_LNG_Exports.pdf