



Industrial Energy Consumers of America *The Voice of the Industrial Energy Consumers*

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Strobe Talbott
President
The Brookings Institution
1775 Massachusetts Ave, NW
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Re: Hamilton Project: "A Strategy for U.S. Natural Gas Exports" by Michael Levi

As an organization whose member companies are exclusively large industrial consumers of natural gas and natural gas-fired electricity, we felt compelled to comment on the recent Hamilton Project report "A Strategy for U.S. Natural Gas Exports" by Michael Levi, published on June 13, 2012.

In our view, the report lacks an appreciation of the substantial opportunity that the domestic use of natural gas offers the U.S. economy and the potential significant negative implications that large volumes of liquefied natural gas (LNG) exports present to consumers of natural gas and electricity.

There are now fourteen companies that have applied to the U.S. Department of Energy for approval to export waterborne LNG. Their combined capacity is 6.7 TCF per year, the equivalent of 27.6 percent of 2011 U.S. demand. For perspective, total U.S. demand from 2000 to 2011, increased by only 4.4 percent. Thus, the magnitude of the potential export demand, even without consideration to other growing U.S. demand from the manufacturing and power generation sector, is very significant. Even though we believe as you do, that the U.S. technically recoverable reserves of natural gas have increased, the gravity of such a substantial increase in demand through exports has enormous potential negative economic implications for domestic consumers of natural gas and electricity. Given the potential significant implications to manufacturing competitiveness, we at IECA welcome the opportunity to collaborate with Brookings wherever possible to explain these concerns.

In regards to using natural gas for export as LNG, IECA supports free trade. At the same time, affordable, abundant natural gas is critical to U.S. manufacturing growth, which in turn is critical to the U.S. economy. The manufacturing sector uses one-third of all of the natural gas and one-third of all electricity (of which one-third is produced from natural gas) which fuels the employment of 12 million high-paid workers. As with any resource that is critical to America's economic growth, any decision to approve the export of natural gas should include a rigorous analysis of the potential impact on the domestic economy and job creation, and place a high priority on the manufacturing sector. Unfortunately, that crucial and needed rigorous analysis of impacts to the manufacturing sector cannot be found in the Hamilton Project papers on natural gas, thereby causing the careful observer to question all of its conclusions.

Our specific concerns with the report are as follows:

1. The report does not provide a true comparison of the economic benefits of natural gas exports versus using natural gas in value-added manufactured products.

The paper's biggest omission is a full discussion of the opportunity that natural gas used in manufacturing brings to the U.S. economy. Affordable and abundant natural gas is vital to the recent renaissance in the nation's manufacturing sector. This renaissance has already contributed to up to a half million new American jobs. In fact, for every manufacturing job created, three to five additional jobs across the broader economy are also created. Natural gas is used as a fuel for the entire manufacturing sector, to make nitrogen fertilizer, and it is also used as a raw material for the production of chemicals that are converted into an immense array of products that are used every day. *Manufacturing natural gas consumption creates far more jobs per unit of gas consumed than any other application.* The chemical industry alone has estimated that over \$35 billion dollars of U.S. investments will be made by abundant, affordable supplies of natural gas.

2. The report mistakenly assumes that domestic demand will remain static.

The report assumes that the domestic demand picture will remain static, when in fact it will not. The EIA AEO demand forecast may have contributed to Brookings' view that domestic consumption will increase only slightly by 2020. EIA's forecast calls for demand from 2012 to 2020 to increase by only .45 MCF, or only 1.8 percent. The EIA base case does not include:

- The impacts of pending EPA regulations on the electric utility industry that could shut down up to 70 GW of coal-fired power plant capacity and increase use of natural gas-fired power generation.
- The pending EPA Industrial Boiler MACT that will result in the conversion of industrial coal-fired boilers to natural gas.
- Petrochemical plant announcements that are estimated to create around 3.0 TCF per year of demand.
- Increased pipeline exports to Mexico and increased use of natural gas as a transportation fuel.

IECA calculations of domestic consumption, plus the 6.7 TCF potential export demand, equates to around a 50 percent increase by 2020. Exports of that magnitude, on top of a growing domestic demand, could affect price more strongly than portrayed in the Hamilton Project papers. Although this is not a comprehensive list, it clearly demonstrates that U.S. demand is poised to increase dramatically.

3. The report inaccurately states that natural gas exports are a good thing for the manufacturing sector because it raises natural gas prices and reduces consumption.

The report states, "Consider first one billion cubic feet of daily LNG trade. Roughly 200 million cubic feet of natural gas will shift from the domestic market to exports. Producers will make \$80 million to \$90 million off these sales. *At the same time, higher prices will spur lower domestic natural gas consumption in power generation and industry [emphasis added],* which will offset that amount by approximately \$4 million to \$7 million."

Exports are a form of demand. Higher relative demand increases prices. Higher demand increases the price of natural gas, natural gas feedstock, natural gas-fired electricity, and directly impacts manufacturing competitiveness that will threaten jobs and economic growth.

4. Jobs created by natural gas export facilities are small, relative to the opportunities to increase manufacturing jobs. Higher resulting natural gas prices will negatively impact U.S. manufacturing employment and ultimately additional jobs across the broader economy as well.

The report says that “Building new LNG export facilities would create a substantial number of temporary construction jobs. Cheniere estimates that its 2.2 billion cubic feet per day facility will take roughly two years to build and support roughly 3,000 jobs at its peak (Oil & Gas Monitor). Scaling this up suggests that allowing LNG exports could lead to as many as 8,000 temporary construction jobs if enough capacity for six billion cubic feet of daily exports was developed in the next several years.”

Three thousand to eight thousand temporary jobs pale in comparison to the potential to create millions of manufacturing jobs. As previously mentioned, for every one manufacturing job created, three to five additional jobs are created in the broader economy.

The paper also does not address the potential loss of jobs if the price of natural gas rises and destroys industrial demand and the manufacturing jobs behind that demand.

5. Global price transparency and market-based pricing is not a benefit for domestic consumers of natural gas. U.S. consumers have price transparency. Prices set by global demand means higher prices.

The report says that “U.S. natural gas exports can also provide a platform for more effective U.S. foreign and trade policy. To that end, the United States should use foreign access to U.S. gas exports as leverage in trade negotiations, and actively seek to steer global gas trade toward greater transparency and market-based pricing.”

A potential negative consequence of significant increases of exports of natural gas is that someday the domestic market price will be tied to global demand, just as crude oil is today. It is not to America’s advantage to have our natural gas price rise every time demand in China or India increases. The gap between the domestic price of natural gas and the price of natural gas in other countries is a newfound competitive advantage for the U.S.

6. The report does not acknowledge that a host of threats could slow, if not derail, shale natural gas production.

The report assumes that an increase in production of natural gas is a given, it is not. There are at least three broad categories of serious barriers that are real and in play, including:

- Public opinion concerns with shale drilling and hydraulic fracturing
- State and federal government regulation
- Actions by environmental organizations whose stated objective is to slow, if not stop, drilling and the use of natural gas for power plants

7. Increased demand through LNG exports does not help the manufacturing sector.

The report also claims that increased demand for natural gas through LNG exports will actually boost the manufacturing sector because increased production for exports will create more ethane, a component of the natural gas extracted from the ground. The report does not mention, however, that LNG would likely be exported to markets that leave the ethane in the gas. Therefore, any incremental gas production from LNG exports would not necessarily result in a greater ethane supply for the chemical industry. Furthermore, LNG exports are not a

prerequisite for the production of more natural gas liquids (NGLs). As ethane is currently more highly valued than natural gas, there is a clear economic incentive for producers to shift production to NGL rich plays. This is already occurring in the marketplace today.

Conclusion

IECA is not opposed to exports of natural gas. However, when all of the components are assessed, we are convinced, and believe others will agree, that domestic consumption of natural gas is a far superior economic alternative for our country and for the manufacturing sector. The U.S. has a once-in-a-generation opportunity to fully utilize natural gas resources as a competitive advantage to create millions of high paying new manufacturing jobs and value-added exports. Large volumes of natural gas exports in the near term are not consistent with this vision. We find that natural gas producers are agnostic as to whether they derive their revenue from exports or domestic sales. Either way, they produce and sell more natural gas. This is not so for American manufacturers.

We hope we have conveyed to you why we think the indiscriminate export of natural gas is not the best use of a strategic commodity.

To that end, we encourage you to consider actions that remove barriers to greater use of natural gas in the manufacturing sector, and would be happy to work with you to help educate the public on this matter. Doing so would be a win-win for producers and consumers alike.

Sincerely,

Paul N. Cicio
President

The Industrial Energy Consumers of America is a nonpartisan association of leading manufacturing companies with \$700 billion in annual sales and with more than 650,000 employees nationwide. It is an organization created to promote the interests of manufacturing companies through research, advocacy, and collaboration for which the availability, use and cost of energy, power or feedstock, play a significant role in their ability to compete in domestic and world markets. IECA membership represents a diverse set of industries including: chemicals, plastics, cement, paper, food processing, brick, fertilizer, steel, glass, industrial gases, pharmaceutical, aluminum and brewing.