



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

1155 15th Street, NW, Suite 500 • Washington, D.C. 20005
Telephone 202-223-1420 • Fax 202-530-0659 • www.ieca-us.org

February 6, 2014

The Honorable Ernest Moniz
Secretary
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, DC 20585

Dear Mr. Secretary:

As some of the largest industrial consumers of natural gas and electricity in the United States, whose global competitiveness is dependent upon the price and reliability of these energy sources, we urge you to take a “time-out” on approving additional LNG export applications to non-free trade countries, until the U.S. Department of Energy (DOE) completes a new comprehensive study on how domestic consumers will be impacted by additional LNG exports. The DOE cannot make a credible public interest determination unless it completes a new study that uses up-to-date demand assumptions, and includes consideration to the U.S. natural gas delivery system and its interface with an ever-increasing natural gas dependent electric generation system. This winter peak demand clearly demonstrates the need to do so. The nations’ price and reliability of natural gas and electricity is too important to rush with further LNG export approvals to non-free trade countries until the necessary due diligence is completed.

Natural gas spot prices of over \$100 per million Btu and electricity wholesale prices of \$1000 per MWh is a crushing blow to the confidence for a sustained manufacturing renaissance.

In January 2014, natural gas spot prices in a number of regional markets spiked to as high as \$123 per million Btu on a delivered basis, and wholesale electricity prices increased to nearly \$1,000 per MWh. Normally the price of electricity would be between \$40-60 per MWh, while NYMEX natural gas futures are normally in the \$5.00 per million Btu range. The high prices in both markets are clear signs of a natural gas delivery system and an electric generation system that is stressed, and this will only get worse with the additional demand for natural gas via LNG exports.

This winter has clearly illustrated that it takes more than just natural gas production resources to provide the country with reliable and affordable natural gas and electricity – it takes an integrated natural gas delivery system and an electric generation system that is working well together. Today, it is not in several regions of the country, and LNG

exports will only make our nations' future delivery of natural gas and electricity less reliable, and increase prices and volatility for both. The seriousness of what has happened to prices this winter and the cost impacts to manufacturing companies cannot be overstated.

The cited problems described below, exist despite the fact that natural gas production hit an all-time high in November, according to the EIA.

Up-to-date assumptions must be used in the public interest determination.

It is our understanding that the DOE is ready to approve a sixth LNG export application for shipment to non-free trade countries. If so, this would increase future LNG export demand to 12 percent of 2012 domestic demand. This would represent a significant additional increase in demand that raises serious implications for the price of natural gas and electricity, and the competitiveness of U.S. manufacturing.

Both the EIA study entitled "Effect of Increased Natural Gas Exports on Domestic Energy Markets" (January 2012), and the NERA Economic Consulting study entitled "Macroeconomic Impacts of LNG Exports from the United States" use assumptions for domestic demand (and other important assumptions) that are now three years old. DOE cannot credibly argue that they have completed a public interest determination using either study to justify approval of a sixth LNG export application for non-free trade countries. Nor has the DOE addressed the multiplicity of errors and assumptions that were incorrect, yet included in the NERA report.

By now, the DOE is well aware of the shortcomings of the NERA report and its questionable use for public interest determination. The failings of the NERA report and its use for justifying the previously approved LNG export terminals raise legal questions of its own.

Domestic demand is significantly accelerating. The 2014 EIA AEO preliminary forecast calls for total demand, that includes exports, to increase by nearly 21 percent from 2012 levels, and it does not include the additional demand for natural gas that will come from the EPA regulation of GHGs that will cause further coal-to-natural gas switching in both the power and industrial sectors. This is why energy market forecasting businesses across the country project an even larger increase of about 30 percent by 2020.

The DOE knows that the "market" has forecasted substantially higher demand for natural but has yet to include this knowledge into the public interest determination. We urge the DOE to do so to enable the quality of decision making that the American public is depending on them to make in their behalf. Anything short of that is unacceptable.

The public interest determination must address natural gas pipeline and storage reliability, our nations' significant increases in demand, and with consideration to an ever-increasing natural gas dependent electricity generation system at peak demands.

Furthermore, the two studies cited above, that were used by the DOE as justification to approve the five LNG export terminals, did not evaluate existing delivery constraints and future delivery constraints during either winter or summer peak demand that is crucial for reliability, nor its implications for price. As you will see below, these constraints become very costly to the consumer. A major shortcoming. IECA brought this deficiency to the attention of the DOE in our comments and our critical critique of the NERA study and its troubling limitations and errors.

Over the last few years, grid operators such as the Midcontinent Independent System Operator (MISO) and the PJM Interconnection (PJM), and regulators such as the North American Electric Reliability Corporation (NERC) have warned that the EPA-induced coal-fired electric generation plant retirements and their replacement with natural gas-fired electrical generation could result in potentially reliability issues. They were correct. This winter's peak heating requirements have exposed troubling weaknesses in robustness of our nations' natural gas pipeline infrastructure and have resulted in extraordinary high prices for natural gas and electricity.

The seriousness of these price levels and reliability concerns cannot be overstated. To put these prices into perspective, even in 2008 when the NYMEX futures prices spiked to \$14.00 per million Btu, industrials did not pay spot prices much higher than that level. And, electricity prices climbed only moderately. The recent high prices have cost individual manufacturing companies tens of millions of dollars in increased operating costs, and costly reduced operating rates per facility, directly impacting competitiveness. Given the future shutdown of up to 50 GW of coal-fired power generation over the next two years, it is frightening to think what will happen to electricity prices that are overly dependent upon natural gas.

The chart below reflects natural gas prices across a broad swath of the U.S., and the weekly weighted average prices at the end of January 2014, and are at a substantial premium to what would be expected given the current Henry Hub futures prices around \$5.00 per million Btu. These very high prices provide a concerning glimpse of what can be expected in the future, since we are still in the early stages of the coal-to-natural gas fuel switching for electricity generators, and the retirement of up to 50 GW of coal-fired generation.

Natural Gas Weekly Weighted Average Prices (\$ per million Btu)

	01/25-01/31, 2014
Appalachia	
Lebanon Hub	\$9.742
REX, Clarington Ohio	\$9.239
Others	
Algonquin, receipts	\$29.302
Alliance, into interstates	\$13.024

ANR, ML 7	\$11.749
Northern Ventura	\$18.852
Dracut, Mass.	\$47.766
Northern Border, Ventura TP	\$14.050
Citygates	
Chicago city-gates	\$14.078
Consumers Energy city-gate	\$14.361
Mich Con city-gate	\$12.608
Algonquin, city-gates	\$39.627
Tennessee, zone 6 delivered	\$23.925
Iroquois, zone 2	\$29.544
Texas Eastern, M-3	\$42.069
Transco, zone 5 delivered	\$31.080
Transco, zone 6 non-N.Y.	\$41.180
Transco, zone 6 N.Y.	\$41.523

Source: Gas Daily, February 3, 2014

The Federal Energy Regulatory Commission (FERC) rightfully recognizes the challenge and the importance of getting this right. But those potential solutions are still a long way off. And, FERC may not be able to devise a solution that overcomes the challenge of an electricity system which will become overly dependent upon natural gas. Importantly, it is impossible for DOE to say that it has completed a public interest determination for consideration of further LNG export applications to non-free trade countries unless it completes a new study that examines how LNG exports could impact reliability and increase natural gas and electricity prices due to problems with the natural gas delivery and electrical generation system.

U.S. manufacturers find themselves competing head-to-head with electricity generators for pipeline capacity and the natural gas needed to operate our facilities. Unlike manufacturers, electricity generators can/will pay whatever it takes to secure natural gas to keep the lights on. Manufacturers cannot, and are therefore forced to curtail facility operations if natural gas or electricity prices (or both) become too expensive. Unfortunately, this is exactly what has happened.

This phenomenon will only increase in severity as more electricity generation converts to natural gas, and as more LNG exports are approved. In fact, if the five LNG export applications were operating today, the January peak natural gas requirements would have been almost 10 percent higher, a very significant additional demand, on top of the existing winter peak demand. To put that in perspective, according to the EIA, natural gas demand increased by only 9 percent from 2000 to 2012. LNG exports will cause a step-change effect, making it worse for all U.S. consumers. LNG exports increase an assortment of supply and price risks to the U.S. consumer, with no benefits.

Importantly, most of the countries that will be buying U.S. LNG are located in the Northern Hemisphere, which means that their LNG winter heating demand will be occurring at the same time as ours. These LNG export terminals will be pulling on the same natural gas storage and pipelines capacity that all U.S. consumers rely upon for their natural gas, and that could create significant future problems.

While this letter makes the case for industrial energy consumers, it is important to keep in mind that all energy costs get passed onto all consumers, including homeowners and farmers. A one cent increase in the price of natural gas increases costs nationally by \$250 million. What has happened to natural gas and electricity prices recently are not trivial, it amounts to tens of billions of dollars of increased costs that weigh on families and the entire economy in many different ways.

President Obama has recognized the importance of growing the U.S. manufacturing sector, the high paying jobs it creates, and has encouraged full utilization of our nations' natural gas resources to that end. He talked about it during the State of the Union. However, reliability of supply because of limits to natural gas pipeline capacity, potential electric reliability problems and the resulting spiking prices for both, threatens the momentum of the potential manufacturing renaissance. We look forward to discussing this with you.

Sincerely,

Paul N. Cicio
President

cc: The Honorable Fred Upton
The Honorable Henry Waxman
The Honorable Ron Wyden
The Honorable Lisa Murkowski
The Honorable Cheryl A. LaFleur

The Industrial Energy Consumers of America is a nonpartisan association of leading manufacturing companies with \$1.0 trillion in annual sales, over 1,500 facilities nationwide, and with more than 1.4 million employees worldwide. It is an organization created to promote the interests of manufacturing companies through 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: chemical, plastics, steel, iron ore, aluminum, paper, food processing, fertilizer, insulation, glass, industrial gases, pharmaceutical, building products, brewing, independent oil refining, and cement.