August 12, 2011

U.S. Department of Energy
Office of Oil and Gas Global Security and Supply
Office of Fossil Energy
Forrestal Building, Room 3E–042
1000 Independence Avenue, S.W.
Washington, DC 20585

[FE Docket No. 11–59–LNG] Lake Charles Exports, LLC; Application for Long-Term Authorization to Export Liquefied Natural Gas

On behalf of the Industrial Energy Consumers of America (IECA), we oppose approving the Lake Charles Exports, LLC (LCE) application that would allow the export of liquefied natural gas to countries that do not have a free trade agreement with the United States. Approval is not in the interest of the public.

Exporting natural gas, the equivalent of increasing demand increases the relative price of natural gas and electricity higher than they would otherwise. This is an indisputable fact. Just a small ten cent increase in the price of natural gas increases consumer costs by almost $2.5 billion per year. Exporting natural gas will result in higher costs to heat and cool homes, run factories and produce electricity than what it would cost without natural gas exports. Exporting natural gas provides minuscule temporary job creation while potentially threatening competitiveness of manufacturing facilities that employ over 10 million people. Lastly, it is not in the interest of the public to spend $4.5 billion of scarce federal dollars to fund LIHEAP to lower the cost of energy to families and support exporting natural gas that will increase demand and relative prices. (Figure 4)

On August 11, 2011, the Chicago Mercantile Exchange September, 2011 price for Henry Hub Natural Gas traded at around $4.00 per MM Btu. The December, 2015 price traded at about $5.765 per MM Btu, a 44 percent increase. What this market data indicates is that without the impact of increased demand from exports, prices of natural gas that Americans will pay increases substantially by almost $18 billion per year. We urge the DOE/FE to measure the gravity of their responsibility to act in the interest of the public in evaluating this export application. The LCE terminal will have the capacity to export .73 TCF/ year or roughly 3 percent of current US demand. According to the EIA, US demand from 2000 to 2010 increased by 3.4 percent. The point is, the LCE terminal is a new significant demand by itself, coupled with the two other export terminals that have already been approved is going to drive up relative prices.

The Industrial Energy Consumers of America is a nonpartisan association of leading manufacturing companies with $800 billion in annual sales and with more than 750,000
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: plastics, cement, paper, food processing, brick, chemicals, fertilizer, insulation, steel, glass, industrial gases, pharmaceutical, aluminum and brewing.

Natural gas availability and price is a public health, safety, jobs and economic matter
There are few issues that singularly impact the public, manufacturing competitiveness and economic growth quite like natural gas demand, supply and price. Natural gas is a substantial fuel to heat homes in the winter. Natural gas fired power generation is the fastest growing source of electricity generation. Home owners rely upon electricity to light and cool their homes. Manufacturers use natural gas as a feedstock (raw material) and fuel. For example, natural gas feedstock is used to produce plastic and fertilizer. When natural gas prices rise, so will the cost of plastic and fertilizer to every American consumer and farmer. When the relative demand for natural gas goes up, the price of natural gas and electricity will go up as compared to if that new demand did not occur. This fact cannot be disputed.

Legal process for approval is flawed and not in the interest of the public
Under the Natural Gas Act, there is a presumption that all exports of natural gas to WTO countries is in the interest of the public. Approval is automatic. When the DOE receives an application to export, there is no requirement to file the export request in the Federal Register nor is there an opportunity for public comment. The process is not transparent and defies democratic ideals. Congress must address this flaw.

Domestic need for the natural gas proposed for export
Supply, demand and prices as forecasted by the Energy Information Administration (EIA) are used as a reference point for both the DOE Office of Fossil Energy (DOE/FE) who manages export approvals and the parties seeking approval. The problem is that the EIA cannot incorporate proposed regulations or legislation that could have a dramatic impact on supply, demand and price.

EIA price forecasts do not account for new natural gas demand that will occur as a result of the multiple EPA Clean Air Act related regulations that will create significant new demand for natural gas. This includes new EPA rules to regulate ozone, the Utility Boiler MACT, Industrial Boiler MACT to mention a few. The EIA forecasts also do not include approval of the recent natural gas export facilities nor a forecast on demand from other facilities that may receive approval to export. As a result, EIA forecasts under estimate demand and price.

For example, consider the proposed EPA CAA regulations directed at the power generation sector. The American Public Power Association 2011 study indicates that about 40 GWs of coal fired power capacity will be shut down and replaced with natural gas fired generation. It is estimated that this new capacity will increase natural gas demand by 1.9 TCF per year, an equivalent of about 8 percent of current US demand. This is an incredibly large new demand.

The American Coalition for Clean Coal Electricity study completed in 2011 by NERA Economic Consulting estimates 47.8 GWs of coal fired power plant shutdowns as a result of EPA CAA regulations and forecasts that it will increase natural gas prices by 17 percent in 2016 or $8.2 billion more per year.
On natural gas supply side issues, the EIA forecasts do not incorporate potential new regulations imposed by states or the federal government that may limit drilling in regions of the country, establish moratoriums or increase the cost of hydraulic fracturing.

*The DOE/FE has an important responsibility to protect the interest of the public.* In this case, they have a responsibility to take into consideration the above new regulatory impacts on demand and price of natural gas. The CAA regulations "will" occur. These are not pie in the sky "maybe" events. Many of these regulations are court ordered.

**Adequacy of domestic natural gas supply**

LCE uses the EIA forecasts as evidence that future potential recoverable reserves are adequate for both domestic and export supply.

First, they have failed to point out that natural gas exploration companies must actually consistently drill wells to produce, sustain and verify the potential reserves are in fact real and economical. In fact the trend is that less natural gas wells are being drilled. As of August 5, 2011 the Baker Hughes natural gas rig count is down nearly 11 percent from its August, 2010 peak of 992. Industry data shows that the natural gas rig count is in a downward trend which places the LCE adequacy of supply in question.

Second, LCE cites EIA forecasts of technically recoverable reserves. LCE fails to provide an independent study from third party experts to prove that technically recoverable reserves will/can result in low relative prices and instead has offered their own analysis. Claims by their own analysis must be discarded for consideration of this application.

Third, the LCE studies all depend upon forecasted EIA natural gas prices. As stated earlier in this report, since EIA does not consider the impact of new EPA CAA regulations in their forecast, all of their price assumptions are low.

The LCE claim that exporting natural gas will not impact relative prices is not realistic and defies the laws of supply and demand.

The LCE data does illustrate that higher prices will be needed to justify new production. The data shows steady increasing marginal costs of production. The net result is that exporting natural gas sends our lowest priced gas overseas and accelerates the point in time that lower priced (low cost natural gas) is gone. That is not in the interest of the public.

**U.S. energy security**

Exporting natural gas is completely inconsistent with US energy security. Exporting natural gas means we are exporting our energy independence. Instead, we should be exporting the drilling technology.

**Impact on U.S. GDP, consumers, industry, including impact on domestic natural gas prices**

The manufacturing sector has 11.9 million employees, 331,062 facilities, pays an average of $72,258 in wages and benefits, contributes 11 percent or $1.6 trillion to US GDP and is responsible for 59 percent of US exports. Every one direct employee – supports 6 indirect jobs. Importantly, manufacturing companies compete globally, often with countries who subsidize the energy costs of their manufacturers. The point is - it is an important sector to the country and its competitiveness is dependent upon the price of energy and especially natural gas. For most companies, there is no substitute.
For the first time since the 1990’s, the US has low relative natural gas prices. Because of this, we are seeing new investment in the US. Multiple new chemical plants have announced facilities. Unfortunately, exports of natural gas threaten the potential for a manufacturing renaissance because manufacturing companies know that it will result in higher natural gas prices.

A brief look at history illustrates the direct relationship of manufacturing competitiveness and jobs to the price of natural gas. Prices of natural gas rose significantly during the period of 2000 to 2008 and as they did, industrial demand fell. This was often referred to as “demand destruction”. Figure 1 clearly illustrates that when prices go up, competitiveness and natural gas demand falls. It also means significant job losses as can be illustrated in Figure 2. Approximately 57,000 facilities were shut down during this time period of steadily rising natural gas prices.

Another illustration of the relationship of higher prices to economic pain can be seen in the fertilizer industry. (Figure 3) According to the Fertilizer Institute, about 27 plants shut down in the early 2000 time period. With lower natural gas prices, 3 have come back on line and one more is expected to be started up soon.

LCE’s application does not address the impact marginal short term increases in demand and its impact on price. Demand for natural gas is greatly influenced by weather. Severe cold or hot temperatures drive natural gas demand. LCE fails to address the impact of their marginal demand on marginal natural gas prices during these peak demand periods. In the natural gas commodity market, the last increment of supply to fill the peak demand often sets the price for not just for the peak demand period but also determines the price for supply contracts that are “priced” on that day.

The LCE export volume of .73 TCF/ year or roughly 3 percent of current US demand will not be available to US consumers to keep prices from spiking during high demand periods.

Caution is required because the basis of the DOE’s assessment for considering approval or disapproval of the export permit and the studies offered by the exporter - are all based upon EIA as a reference case. EIA’s recent ten year history of forecasting natural gas prices is very extremely poor and supply and demand did not fluctuate greatly. During the last 10 year period, EIA price forecasts failed to forecast any of the significant price increases.

Domestic pricing versus global pricing of natural gas
The LCE application fails to address the issue of domestic versus international natural gas pricing. Exporters like LCE desire to expand export volumes to the extent that US prices will be set by global demand like crude oil is today. Succeeding means higher prices for US consumers and that is not in the interest of the public.

Take the example of crude oil whose price is determined by global demand. If global demand rises, the price that US consumers pay will go up. In contrast, the US natural prices are determined by demand within the US, Canada and less so with Mexico. If domestic supply increases relative to demand, prices could fall. If US supply decreases and or if exports increase, prices could go up.

Approving natural gas exports sets the stage for US natural gas prices to be set globally. The international LNG markets link the price of natural gas to crude oil. This guarantees higher prices.
Job creation
The first rule of job creation is to not lose jobs. LCE’s export terminal provides only minimal temporary job creation and threatens both short and long term job creation for the manufacturing sector and especially the energy intensive industries. We need policy that increases the potential for net job creation not net job reduction.

Exporting natural gas offshore has the net effect of exporting our jobs offshore as well.

US balance of trade
Higher relative natural gas prices threaten to reduce the competitiveness of the manufacturing sector that would reduce exports and certainly prevent the potential to increase exports.

It is for all of these reasons that IECA opposes the Lake Charles Energy export application. If you have any questions, please feel free to contact us.

Sincerely,

Paul N. Cicio
President
Figure 2.

U.S. Total: 5.7 Million Manufacturing Jobs (33%) Lost

Source: Bureau of Labor Statistics

Figure 4.

LIHEAP Funding History

[Bar graph showing LIHEAP funding history over fiscal years from 1997 to 2017]
Figure 3.

![Graph showing the correlation between the number of ammonia plants closed and natural gas price from 1998 to 2007. The graph indicates that the number of plants closed increased as the natural gas price rose.]

Source: Blue, Johnson and Associates, IFDC, Natural Gas Week and The Fertilizer Institute.

Figure 1.

![Graph showing the natural gas industrial sector consumption versus wellhead price from 1980 to 2009. The graph highlights the impact of fuel use act, deregulation, and market penetration on consumption.]

Source: US Energy Information Administration