

# Economic and Environmental Benefits of U.S. LNG

Top Findings from S&P Global Phase 2 LNG Impact Study Supported by the U.S. Chamber of Commerce



S&P Global's world-leading energy analytics team undertook comprehensive modeling that demonstrates the significant economic and environmental benefits of U.S. liquid natural gas (LNG) exports.

## Why it matters:

The study found that of the 495,000 jobs supported by the LNG industry, 37 percent—or 183,000—are in states that do not produce natural gas. Twenty-one states have more than 5,000 jobs supported by the industry.

## Top Findings



### LNG Economic Benefits Extend to All 50 States

Of the nearly 495,000 jobs supported by the LNG industry, **37 percent—or 183,000 jobs**—are based in non-producing states. Similarly, **\$383 billion**, or 30 percent of the expected \$1.3 trillion in GDP benefits attributable to LNG through 2040 will occur outside of the seven core energy producing states.

In fact, **39 different states have at least one thousand jobs supported by the LNG industry**, and in 21 states the supported employment exceeds 5,000 jobs.

The sourcing of inputs for LNG export value chains extend throughout the country and support businesses that supply equipment, materials, logistics, IT, construction, and services. States such as Indiana, Kansas, Illinois, and Minnesota will realize **more than \$2,000** in per capita economic benefits from LNG through 2040.



U.S. Chamber of Commerce



## Expanded Pipeline Infrastructure Could Deliver Enormous Consumer Benefits

Due to pipeline constraints, Northeast U.S. residents must pay the highest natural gas prices in the country. During peak winter periods, wholesale natural gas in Boston and New York prices are 166% and 144% more expensive, respectively, than the national benchmark price.

Expanding pipeline capacity out of the low-cost Marcellus region in Pennsylvania would save American consumers an average of **\$5.5 billion annually**, totaling to nationwide energy cost reductions of **\$76 billion** through 2040.

80 percent of those cost reductions occur in the form of lower prices for industrial and commercial gas consumers, and lower electricity prices for all. Specifically, gas consumers in the industrial and commercial sectors benefit from **\$22 billion** and **\$12 billion** of savings, respectively, during the period, while electricity consumers save **\$27 billion**.

An additional **\$15 billion** of cost savings will flow to residential gas users, with customers in the Northeast benefiting the most. Natural gas prices in Boston and New York would fall by an average of **27%** and **17%**, respectively, with peak heating month declines of **30%** and **20%**. These pipeline-driven price reductions will save residential gas consumers in New England **\$1,435** through 2040, while New York and New Jersey customers save **\$813**.



## U.S. LNG Delivers Significant Environmental Benefits

If pending LNG projects were to be halted, **85 percent** of lost export volumes would be replaced by foreign fossil fuels such as delayed coal plant retirements in Europe and Asia. Life cycle GHG emissions of coal are **65-69% higher** than U.S. LNG.

Moving forward with six halted U.S. LNG projects would avoid up to **65 million tons** of greenhouse gas emissions annually—an amount equivalent to taking **14 million** gasoline-powered vehicles off the road.

Cumulatively, moving forward with the halted projects would avoid **780 million tons** of greenhouse gas emissions through 2040. This is equivalent to 1/3 of the European Union's cumulative energy-related emissions reductions over the last decade.

The average methane emissions intensity of Russian LNG and pipeline gas is **44% and 59%** higher, respectively, than the comparable intensity of U.S. LNG export projects halted by the recently ended “Pause” on new licenses. The methane emissions of Algerian pipeline gas—a growing supply source for Europe—are **161% higher** than U.S. LNG.

S&P Global's methane emissions observations across the U.S. natural gas value chain are between **20 and 300 times greater** than in other countries. This lack of methane emissions measurement and transparency outside of the U.S. could mean that the environmental benefits of American LNG exports are significantly understated.

