Time to Get Rid of the Jones Act for LNG?

Robert Brooks, PhD
Founder, RBAC, Inc.

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Outline of the presentation

• About RBAC, Inc.
• What is the Jones Act?
• The challenge of gas in the US Northeast
• Global LNG trends - how will they impact the US Northeast?
• Pipelines, LNG, or what for New England?
• What about the Jones Act and LNG?
RBAC produces the gas market simulators of choice for...

- Large Multinational Energy Players
- Major Exploration & Production Companies
- Regional Utilities
- Government & Regulatory Agencies
- Energy Marketers & Traders
- Major Energy Consulting Firms

GPCM®, RBAC’s North American gas market simulator, is used by most of the major players and consultants in the North America natural gas and LNG market, as well as the US Federal Energy Regulatory Commission (FERC) and the Canadian National Energy Board (NEB).
What exactly is “The Jones Act”?

- The Jones Act of 1920 restricts US produced commodities from being shipped from one US port to another unless …
  - The ship used has been built in the US
  - The ship is operated by a US-owned company with US citizen seamen

- The act was intended to support the US shipping industry but with regard to LNG …
  - The US has never built an LNG tanker (and won’t in the future)!
  - Hence, US buyers must buy foreign LNG rather than get it from US producers
  - Like from Russia for example …
Why Is Russian Gas in Boston Harbor?

Environmentalists' war on fossil fuels helps Vladimir Putin.

By Drew Johnson
March 12, 2018 7:33 p.m. ET

148 Comments
The Challenge of Gas in the US Northeast

• How did it come to this?
  – Gas demand has been growing in the Northeast
    • Demand for cleaner gas-fired generation to replace coal- and oil-fired plants
    • Severe winter weather has caused seasonal demand spikes
  – Gas supplies are abundant in PA, WV, and OH
  – Northeast utilities have requested pipeline expansions to bring this gas to market, but …
  – New pipeline proposals generated a buzz-saw of opposition from environmentalists and politicians
  – They have “won” for the moment but …
  – Let’s look at some data …
Gas demand in the Northeast has grown about 35% since 2001.
US Gas Production History 1973-2016

US gas production has increased by about 50% in the same time.
New England’s ELC demand has been flat since 2006.
Natural gas has been replacing coal and oil in Mid-Atlantic electricity generation.
New England Generation

This is also generally true in New England but ... what’s been happening since 2013?
New England Gas Demand (bcf/day)
High demand with restricted supply …

Algonquin City-Gates Price, Monthly Average (US$/mmbtu)
Northeast Gas Market Summary

• Northeast gas demand was flat prior to 2006 but grew substantially once the shale gas revolution got going, especially in Pennsylvania for power

• Coal and oil-fired generation in New England has fallen since 2006, displaced by natural gas but …
  – Winter gas supply constraints in 2013-2017 resulted in huge price spikes, resumption of use of coal and oil-fired plants, with resultant higher CO₂ emissions

• Restrictions from politicians in New York state and New England blocked utility-requested pipeline projects by Kinder-Morgan and Algonquin

• Bottom line: in spite of abundant supplies of gas in nearby Marcellus region, New England must rely on LNG imports as well as coal and oil for electricity production
How do global LNG trends impact the Northeast US?

- New York is not dependent on LNG
  - It has access to all the Marcellus gas it is willing to buy
- But New England can’t get more pipeline gas, so must rely on LNG
- Expansions in Australia, Russia, and Qatar plus new facilities in the US means there will be an abundant supply of LNG at reasonable cost for the next decade
- The rise of portfolio LNG players means more supply will be available on the spot market
- New discoveries in Trinidad could improve its position as a stable LNG source for New England
New England’s options

• Environmentalists have been successful in blocking new pipelines to bring abundant and inexpensive Marcellus gas to New England

• What are its alternatives?
  – Solar and wind? Latitude and weather limited
  – Nuclear? Plants have been shut down
  – Electricity imports? New Hampshire is blocking imports of electricity from Canada
  – Coal and fuel oil? Available but environmentally damaging

• The only solution left is more foreign LNG
  – Or is it?
What about American LNG?

• The US is poised to become the third largest LNG producer in the world
• Prolific supplies of gas are available in Pennsylvania, West Virginia and Ohio
• The Cove Point LNG terminal opened for exports this last spring, supplied by gas from the Marcellus
• Japan and India have contracts for this LNG
• GALE of India has expressed interest in re-selling some of this LNG
• New England needs more LNG each winter
• But …
The catch – the Jones Act

- The Jones Act of 1920 will not allow LNG to be loaded onto a tanker at an American port and unloaded at another American port unless …
  - the tanker was built in the US
  - and it is operated by a US-owned company with US citizen seamen

- The act was intended to support the US shipbuilding industry but …
  - The US has never built an LNG tanker!

- Hence, the US has to buy foreign LNG rather than get it from US producers
A possible solution: exemptions

• The law does allow for exemptions under certain conditions.
• Exemptions have been made during periods of natural disaster such as hurricanes.
• Would it be possible to get such an exemption for LNG?
• Let’s first see whether this would help the situation in New England.
Jones Act Exemption Scenario

• Let’s use the GPCM North American natural gas market simulator to see

• Assumptions
  – Use RBAC’s 18Q3 base case as foundation
  – Two demand cases for New England
    • Low – average actuals for 2011-2017
    • High - 120% of average
  – LNG can flow from Cove Point to Everett

• Results …
Flows – Low Demand Case

Monthly LNG Flows Cove Point to Everett - Low Demand Case (mmcf)
Flows – High Demand Case

Monthly LNG Flows Cove Point to Everett - High Demand Case (mmcf)
Prices – Low Demand Case

Price Impact of US LNG Imports at Algonquin Citygates ($/mmbtu)

- US LNG - Low Demand
- No US LNG - Low Demand
Prices – High Demand Case

Price Impact of US LNG Imports at Algonquin Citygates ($/mmbtu)

- Red line: US LNG - High Demand
- Blue line: No US LNG - High Demand

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Conclusions

- LNG would flow from Cove Point to Boston to satisfy peak winter demand conditions.
- The higher New England’s gas demand, the more LNG would flow.
- Winter price spiking can be moderated, but if demand is very high, more LNG would be needed to get a substantial reduction in price spiking.
- Granting an exemption to the Jones Act for LNG would produce substantial economic benefits for the US Northeast by satisfying peak winter demands when pipeline gas is not available.
Contact Information

Robert Brooks, Ph.D.  Founder
rebrooks@rbac.com
Liam Leahy, Chief Executive Officer
leahy@rbac.com
James Brooks, Director Business Development
james.brooks@rbac.com
Bethel King, Senior Director, Market Analysis
bking@rbac.com
Jill Quick, Senior Analyst
jill.quick@rbac.com

Contact Numbers

Administration (281) 506-0588
Contracts and Sales (281) 506-0588  ext. 126

More information: http://www.rbac.com
RBAC Inc. licenses economic forecasting tools to the energy industry, as well as State and Federal government agencies involved with Energy, Transportation and the Environment. RBAC’s principal products include the industry standard GPCM® Natural Gas Market Forecasting System™, the GPCM® Base Case Database for North America, and GPCM Viewpoints® on Natural Gas.

We continuously advance our modeling tools through technology, feature development and regularly released updates based on client requests and energy industry needs. Those needs resulted in our development of RBAC’s North American Natural Gas Liquids Model (NGL-NA™) and GPCM Daily™.

Additional forecasting tools scheduled for release include:

- G2M2® Global Gas Market Modeling System .Net Ver. 3.5
- GPCM® for MS-SQL

Licensees of RBAC’s systems are involved in natural gas exploration and production, LNG infrastructure development and marketing, natural gas marketing and transportation, electric power generation, natural gas distribution, and commodities trading, as well as most of the major consulting firms that service business and planning needs of the energy industry and its bankers.

Dr. Robert Brooks founded RBAC in 1987 based on experience developing several well respected predictive models since his first work on his doctoral research in natural gas transportation economics at MIT in the 70’s.

Designing forecasting tools for global energy market prices, basis, and flows is RBAC’s core business. RBAC’s staff includes experts in natural gas supply, demand, marketing and transportation as well as the dynamic global pipeline and LNG markets. Our team applies its world class expertise in mathematical modeling, statistical analysis, mathematical algorithm development, software engineering, and database design to current and future challenges, risks and opportunities in energy.