


Global gas markets: The North American factor

Giorgio Bresciani, Dieuwert Inia, and Peter Lambert

New exports of low-cost gas from Canada and the United States could threaten liquefied natural gas projects in other regions.

Cost curves, which array blocks of supply according to their expense, can clarify the dynamics of supply in commodity industries. They are particularly useful when multiple new sources compete to serve a finite market. Such a situation exists today for liquefied natural gas (LNG). Exporters from North America—now among the world's low-cost gas producers, given recent advances in recovering shale gas—aim to export LNG in competition mostly with projects in Africa, Australia, and Russia.

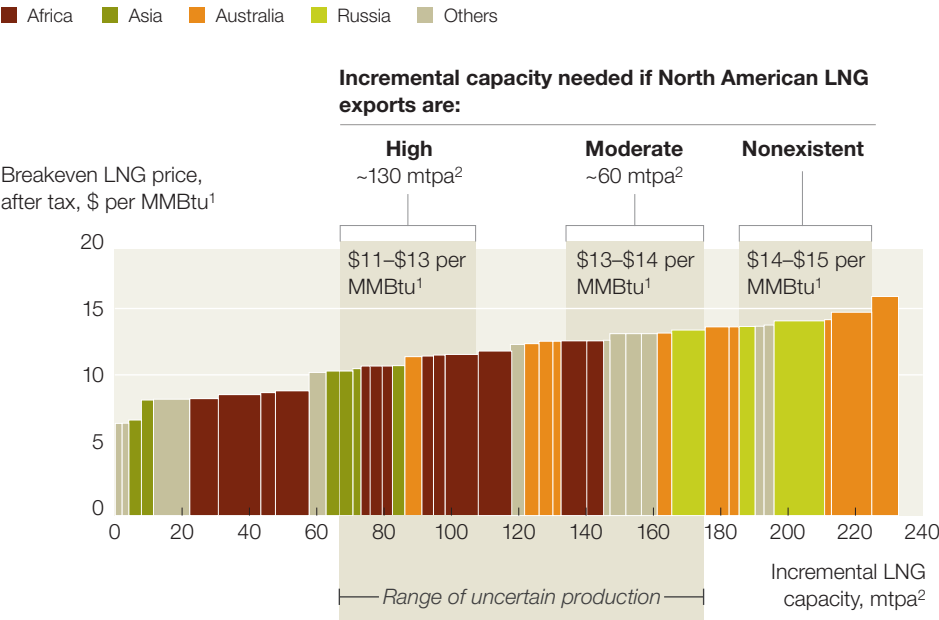
The exhibit shows how the required breakeven costs of global LNG projects could shift in three North American export scenarios. The Canadian and US governments have so far permitted the building of six LNG export terminals, with capacity equivalent to 25 percent of current global LNG demand (moderate scenario). An additional 20 terminals, which could process the equivalent of some 75 percent of global demand, have also been proposed. Up to

70 percent of them could actually be built (high scenario). If these additional projects were authorized and constructed, the market would need less capacity from higher-cost exporters in Africa, Australia, and Russia. Of course, the development of unconventional gas sources outside North America, the trajectory of gas demand in Asia, and the evolution of oil prices will also influence global natural-gas supplies. 

The authors wish to thank Daniel Cramer, Jaap Strengers, and Rembrandt Sutorius for their contributions to our perspectives on this topic.

Giorgio Bresciani is a director in McKinsey's London office, where **Peter Lambert** is a senior expert; **Dieuwert Inia** is a principal in the Amsterdam office.

Increased liquefied natural gas (LNG) exports from North America would outcompete high-cost supplies.



Understanding this cost curve: The x-axis shows available industry capacity in order of increasing cost. Each block in the curve is a distinct facility (or basin) for supplying LNG. The cost curve displays how much each facility is able to supply (x-axis) and at what cost (y-axis). Facilities whose costs go above a market-driven price point are usually taken offline.

¹Million British thermal units.

²Million metric tons per annum.

Source: McKinsey analysis of data provided by Energy Insights (a McKinsey Solution)