During the past 10 years, US natural gas production has grown remarkably even as prices dropped to near 20-year lows. Largely unforeseen, this drop stems mainly from hydraulic fracturing successes in the Barnett shale and across the country, including the prolific Marcellus formation in the Appalachian basin.

The low prices seem to have spurred demand, propelling growth across the board—including electricity generation, industrial demand, and nascent transport sectors, as well as exports. However, it is unclear if this tremendous consumption growth is sustainable.

This report discusses the drivers of potential increases (and decreases) in gas demand in three key sectors, as well as the opportunities for increasing exports. It further drills down into the impacts and implications for the entire natural gas value chain—including upstream producers, the midstream infrastructure system, and downstream consumers.
Major findings

• Power generators that have benefited from low-cost gas are unlikely to be a large part of future demand growth. The potential rise in gas prices is likely to reduce opportunities for further fuel switching from coal, particularly given significant uncertainty around future emission regulations and limited electricity demand growth.

• Economic growth, both in the United States and abroad, could drive industrial consumption growth. Petrochemical plants might be the most visible source of growth, but there are a number of other gas-intensive industries that might also contribute.

• Converting transport from liquid hydrocarbons to natural gas will likely be an uphill battle. But the environmental profile of natural gas may play a big role in its future, with a potentially large market to capture—notably in marine bunkering and rail.

• Liquefied natural gas exports are on a trajectory to grow over 8 billion cubic feet a day if utilization can be maximized. However, global competition has stiffened and exports could be highly cost-sensitive, challenging both existing and unsanctioned projects.

• Over the next five-plus years, growth in the natural gas market is expected to rely on prudent infrastructure build-out combined with increasing production efficiencies as producers drill out new acreage in the unconventional gas plays.

For more information, or to download the full report, visit: www.deloitte.com/us/naturalgasdemand