

SUPPLY SOURCES/ UPSTREAM CAPACITY SERVICE FOR SOUTH CAROLINA, INCLUDING SUPPLY OUTLOOK

OCTOBER 8, 2010

U.S. Sources of Natural Gas

- Most consumption in the US is produced in the US via on/off shore production
- Some Canadian Importation
- Importation of foreign Liquefied Natural Gas (LNG)

Offshore Platform



Onshore Wellhead



Source: U.S. Department of Energy

Shale Gas Wellheads

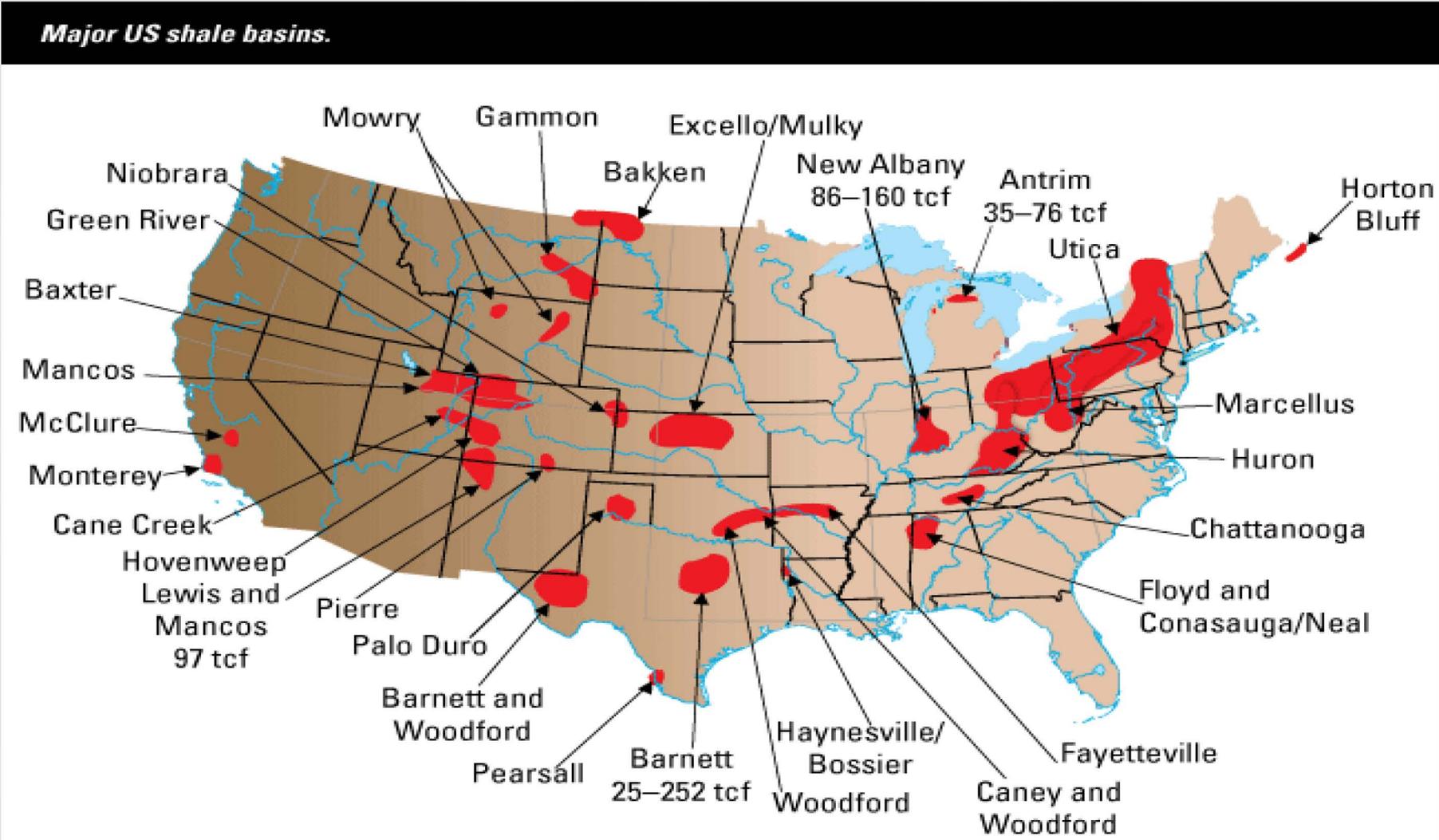


Source: Chesapeake Energy

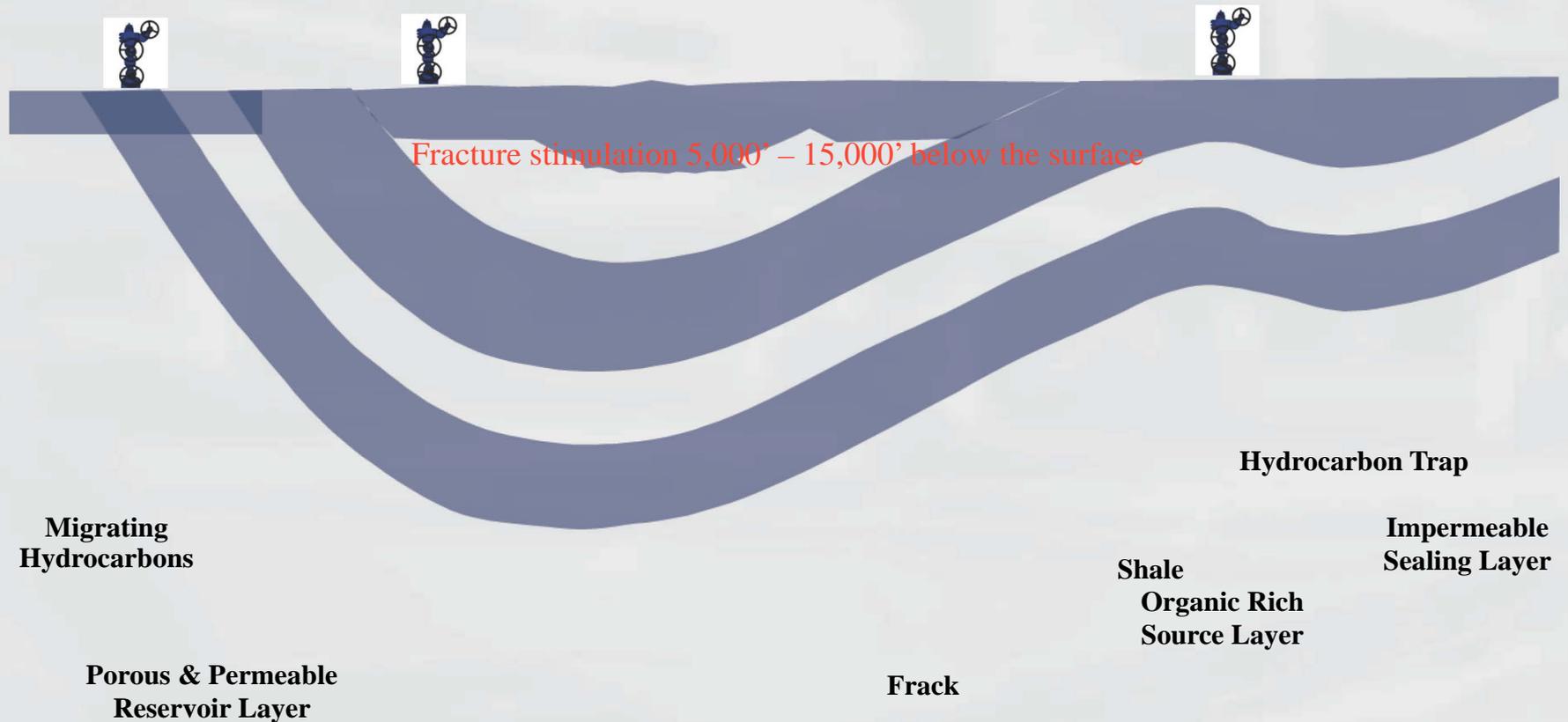


Source: Devon Energy

On Shore Unconventional Production



Hydraulic Fracturing Technology



Liquefied Natural Gas (LNG)

- Liquefied Natural Gas, or LNG, is natural gas in its liquid form. When natural gas is cooled to minus 260 degrees Fahrenheit (-162 degrees Celsius), it becomes a clear, colorless, odorless liquid
- Liquefaction reduces the space natural gas occupies by more than 600 times, making it easier to store and transport

LNG Tankers



Source: Southern LNG



Source: United States Coast Guard

Elba Island LNG Terminal



SLNG's Proposed Gas Quality Tariff Changes

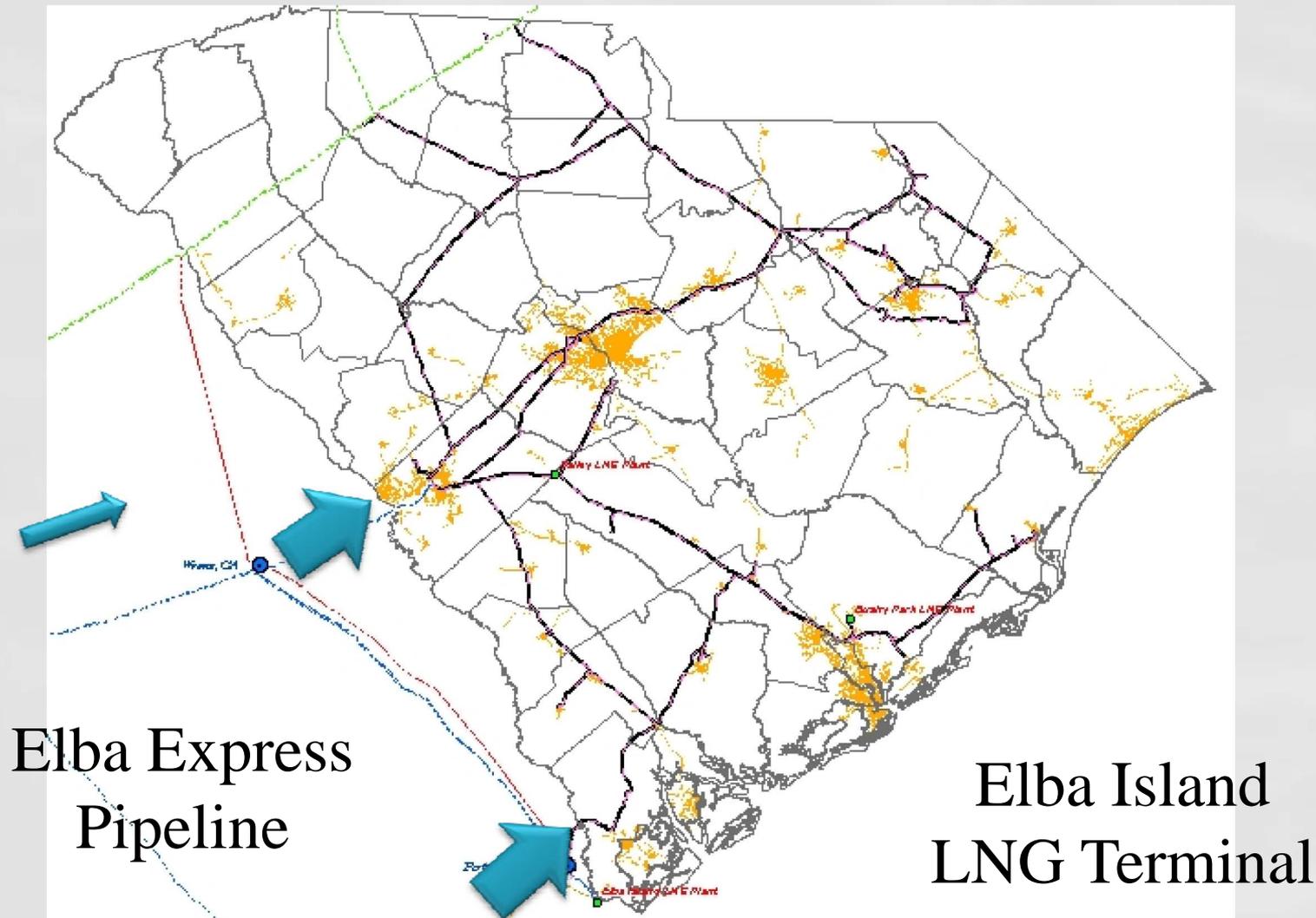
	Existing Requirements	Proposed Requirements
Maximum Btu/scf	1075	1100
Maximum Wobbe Index	None	1396
Maximum CO ₂ or N ₂	3% aggregate	1% CO ₂ 2% N ₂
Maximum O ₂	1%	0.2%

Source: http://elibrary.ferc.gov:0/idmws/file_list.asp?document_id=13823367

Why is SLNG Filing?



How Are We Affected?



Gas from the Ground Up

On-Shore



Elba Island

Transcontinental
Southern Natural
Gathering Systems
Carolina Gas Transmission

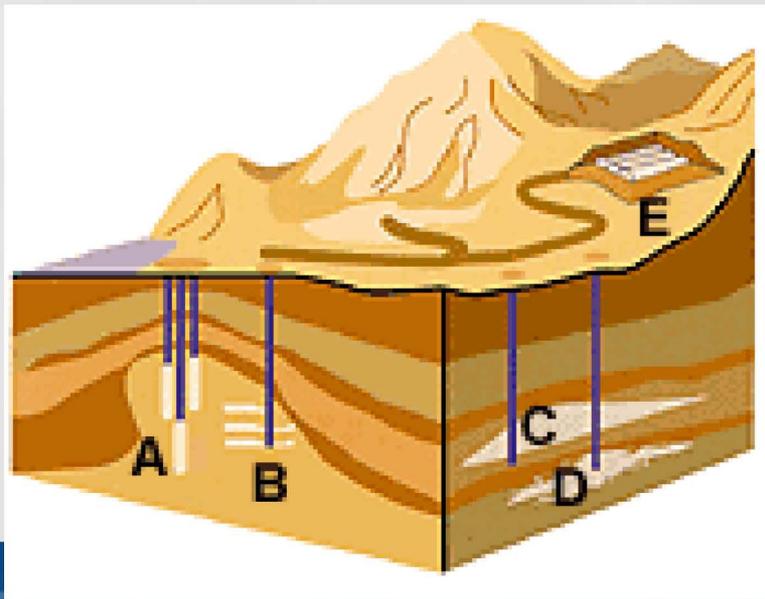
Off-Shore

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SCE&G
Gas Wells
Interstate Storage

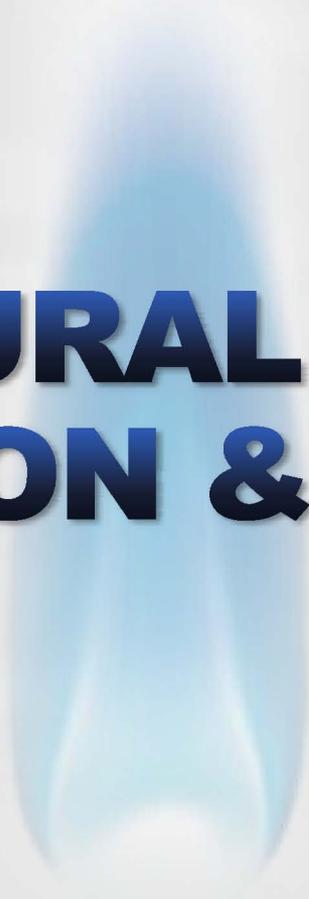
STORAGE FIELDS

A place to store natural gas supplies for use at a later time. Can be an old gas field, developed salt dome or liquefied natural gas tank. Advantages including having gas closer to end-use markets, ability to offset supply disruptions during cold weather, and avoidance of pipeline bottlenecks during peak usage.



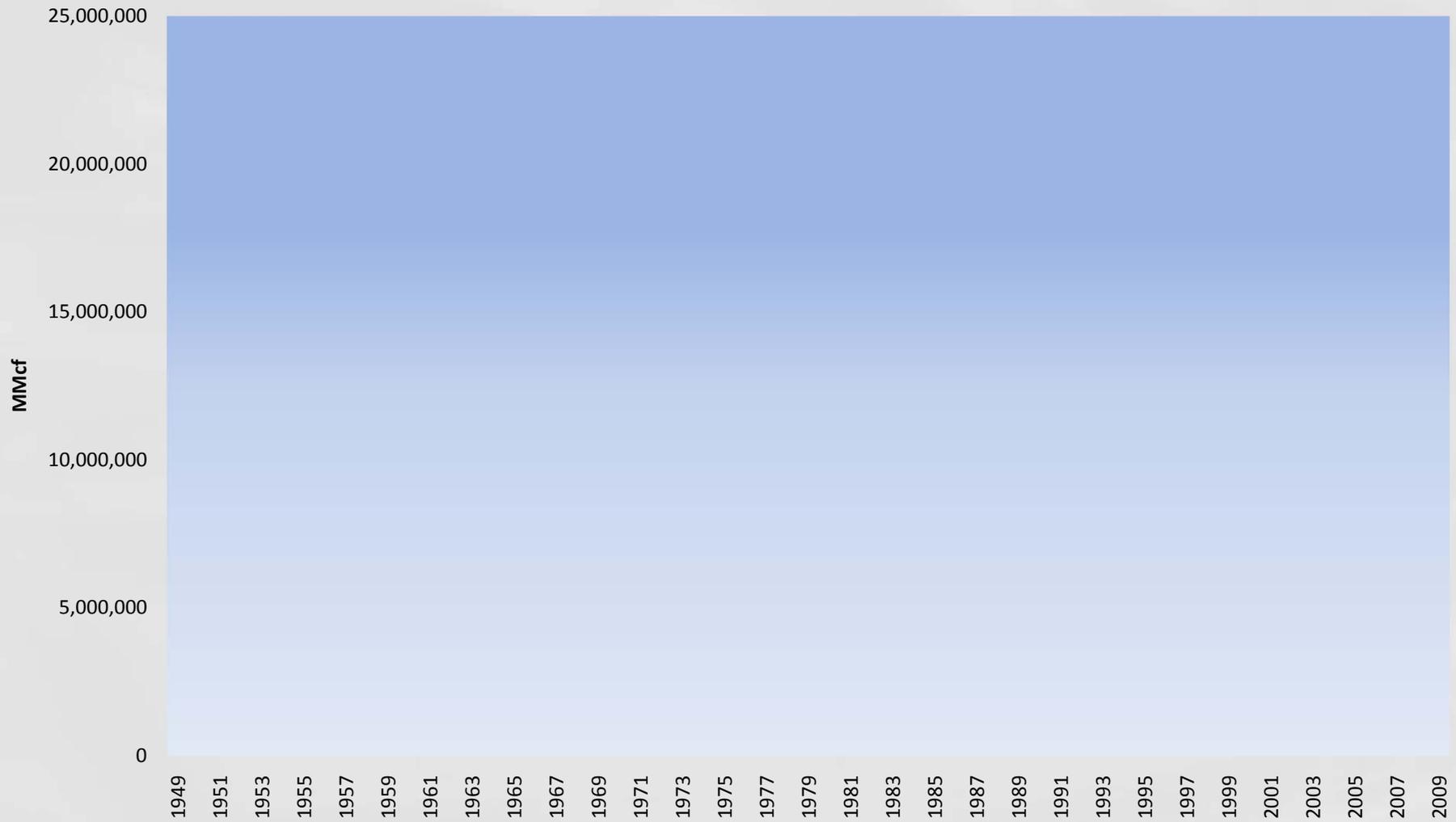
Natural gas can be stored underground in:

- (A) salt caverns
- (B) mines
- (C) aquifers
- (D) depleted oil/gas reservoirs
- (E) hard rock mines.



NATURAL GAS PRODUCTION & OUTLOOK

U.S. Natural Gas Consumption



Source: Energy Information Administration

U.S. Natural Gas Production



Shale Gas Outlook

- 100+ years of natural gas supply – and growing with technology
- New shale gas resources:
 - Near-term supply impact
 - Short well drilling times
 - Very high initial production rates
 - Long-term supply stability
 - Wells produce for 40 - 50 years or more
- New resources onshore are easier and less expensive to develop