

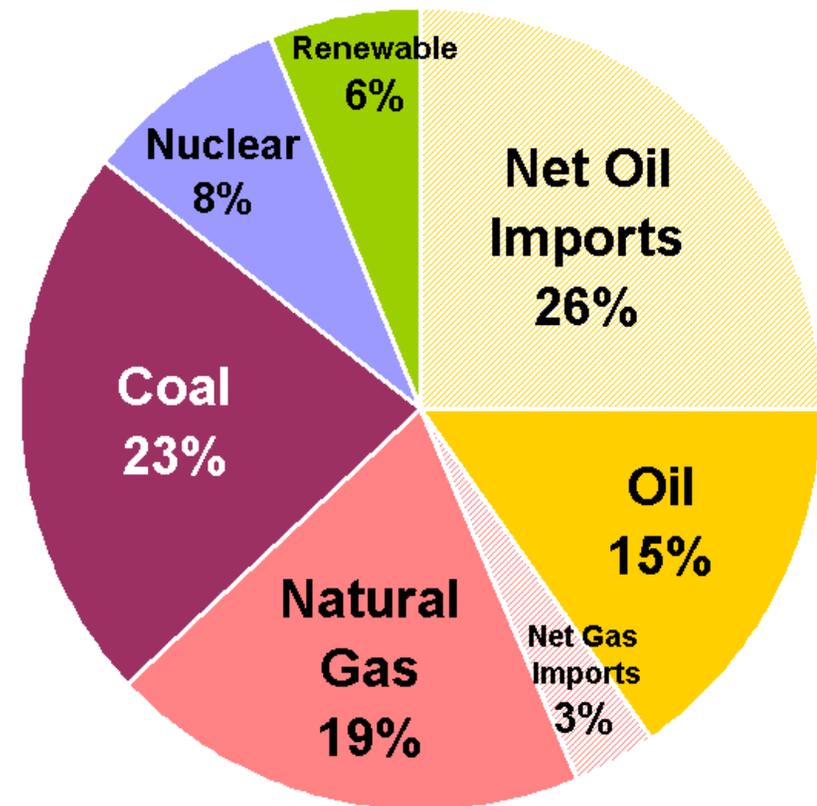
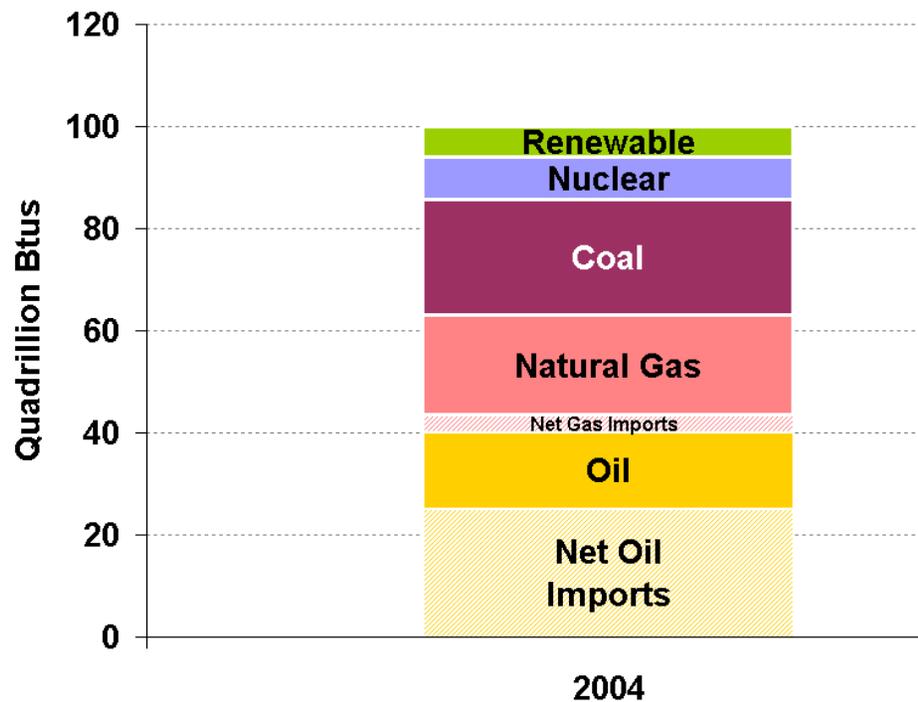
# Energy Infrastructure



*Pat Wood, III, Chairman*  
*Federal Energy Regulatory Commission*

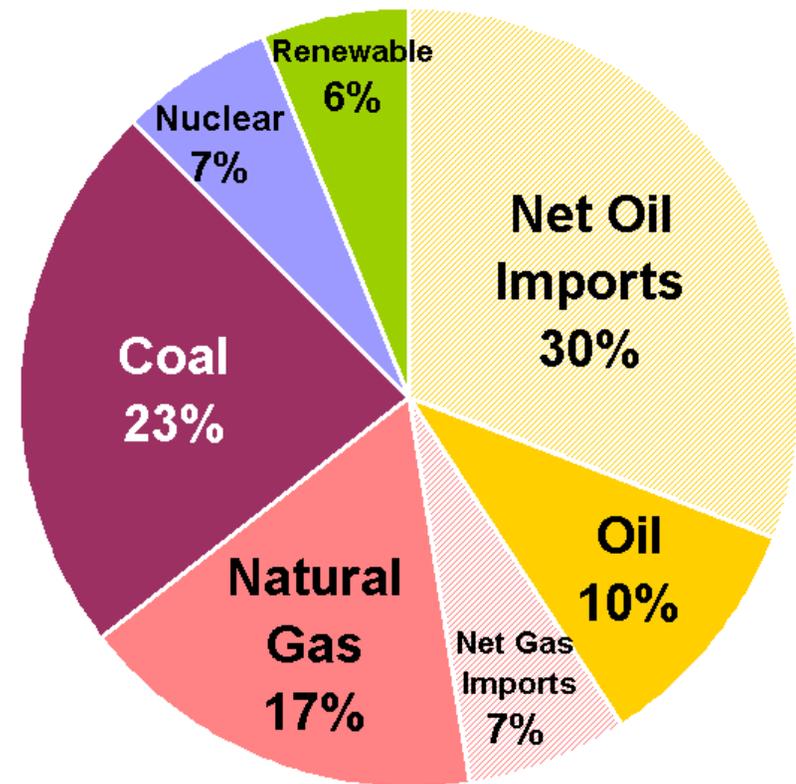
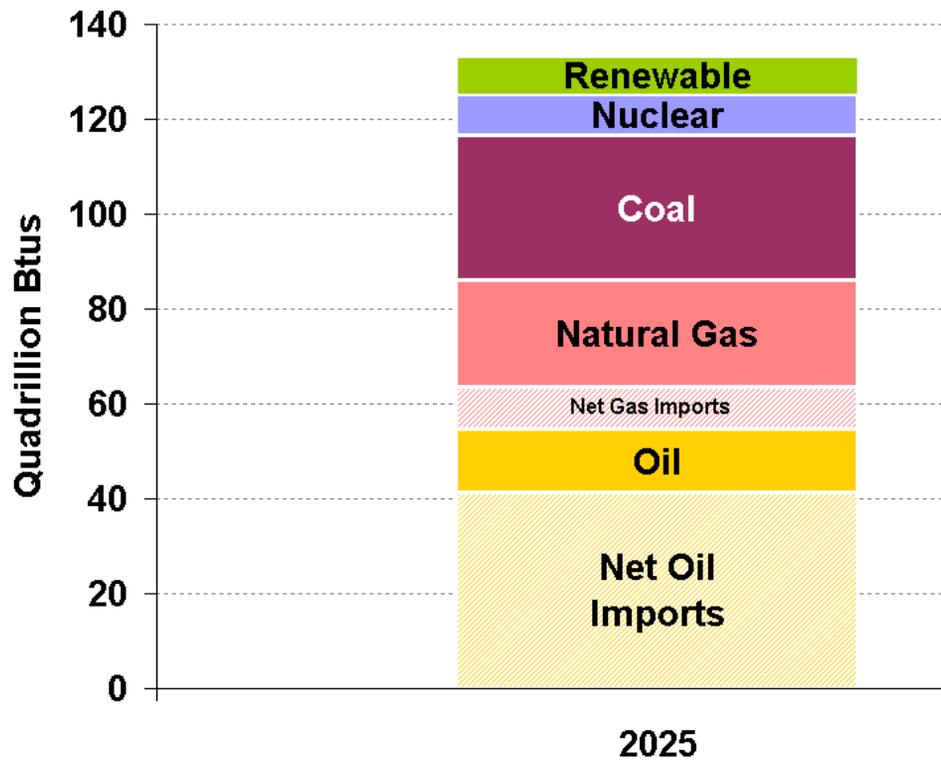
**Sioux Falls, South Dakota**  
**April 19, 2005**

# The total U.S. energy consumption in 2004 was nearly 100 quadrillion Btus.



Source: Based on data from EIA Annual Energy Outlook 2005

# By year 2025, the total U.S. energy consumption is expected to increase 33 percent to 133 quadrillion Btus.

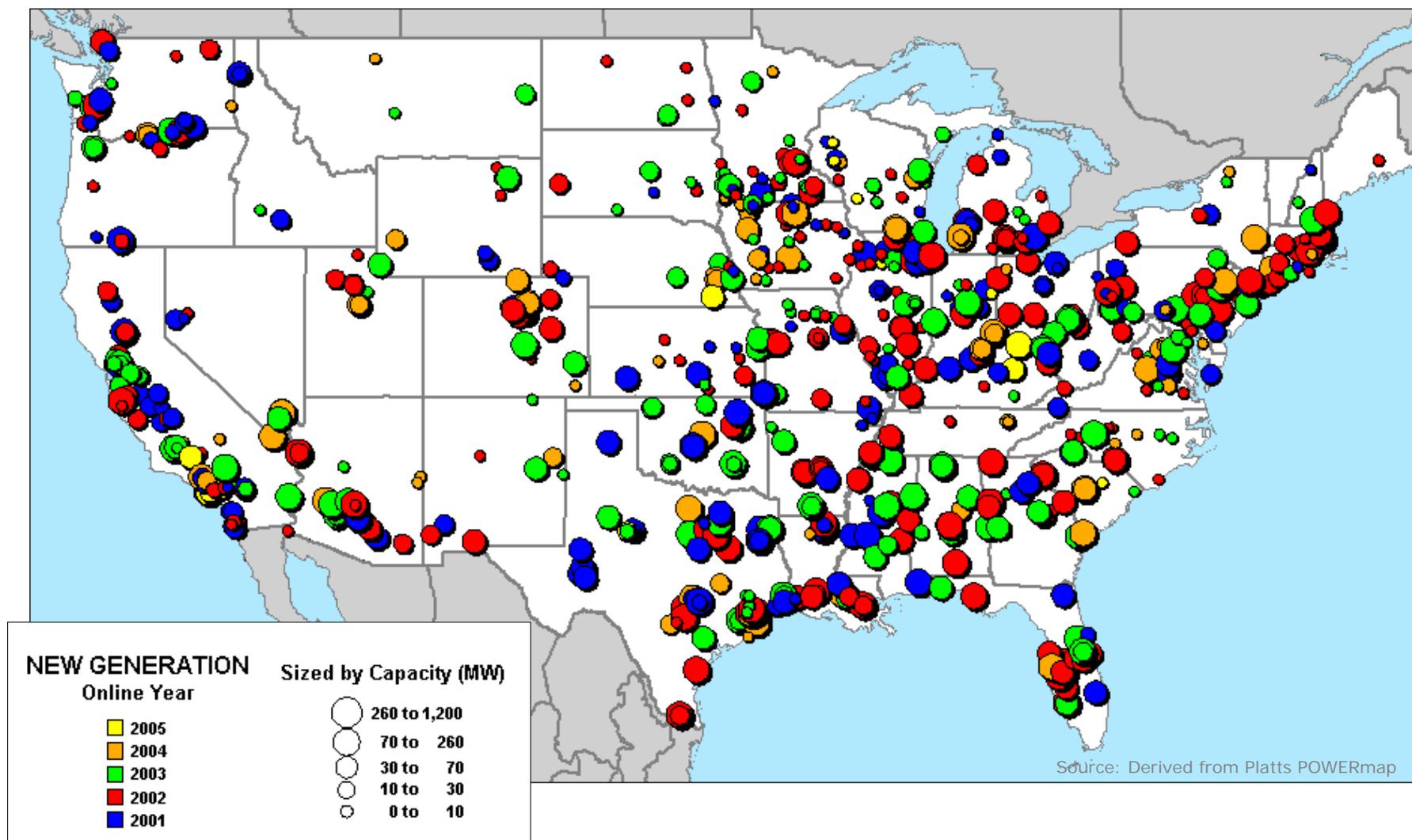


Source: Based on data from EIA Annual Energy Outlook 2005

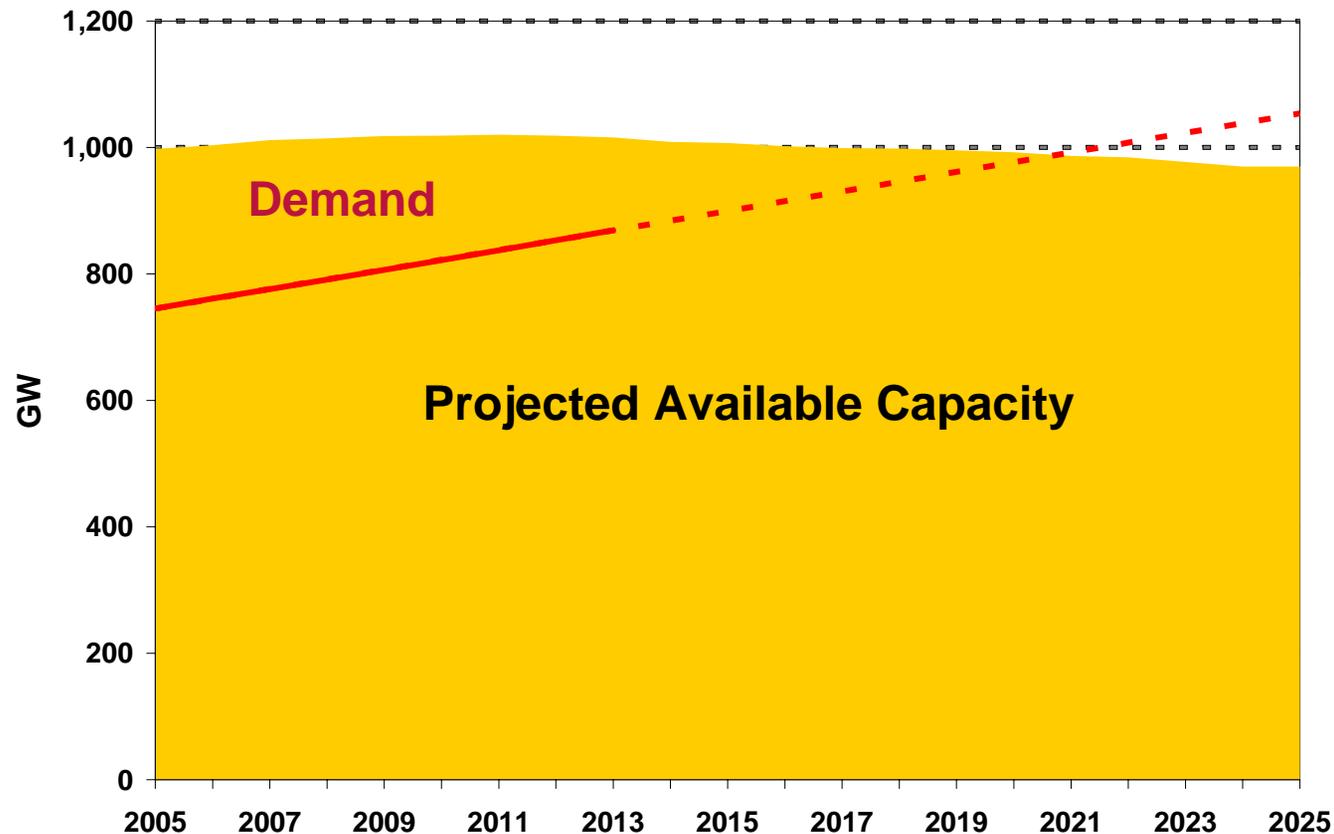
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# Electricity

# New generation units added from June 1, 2001 to March 2, 2005 totals 185,908 MW



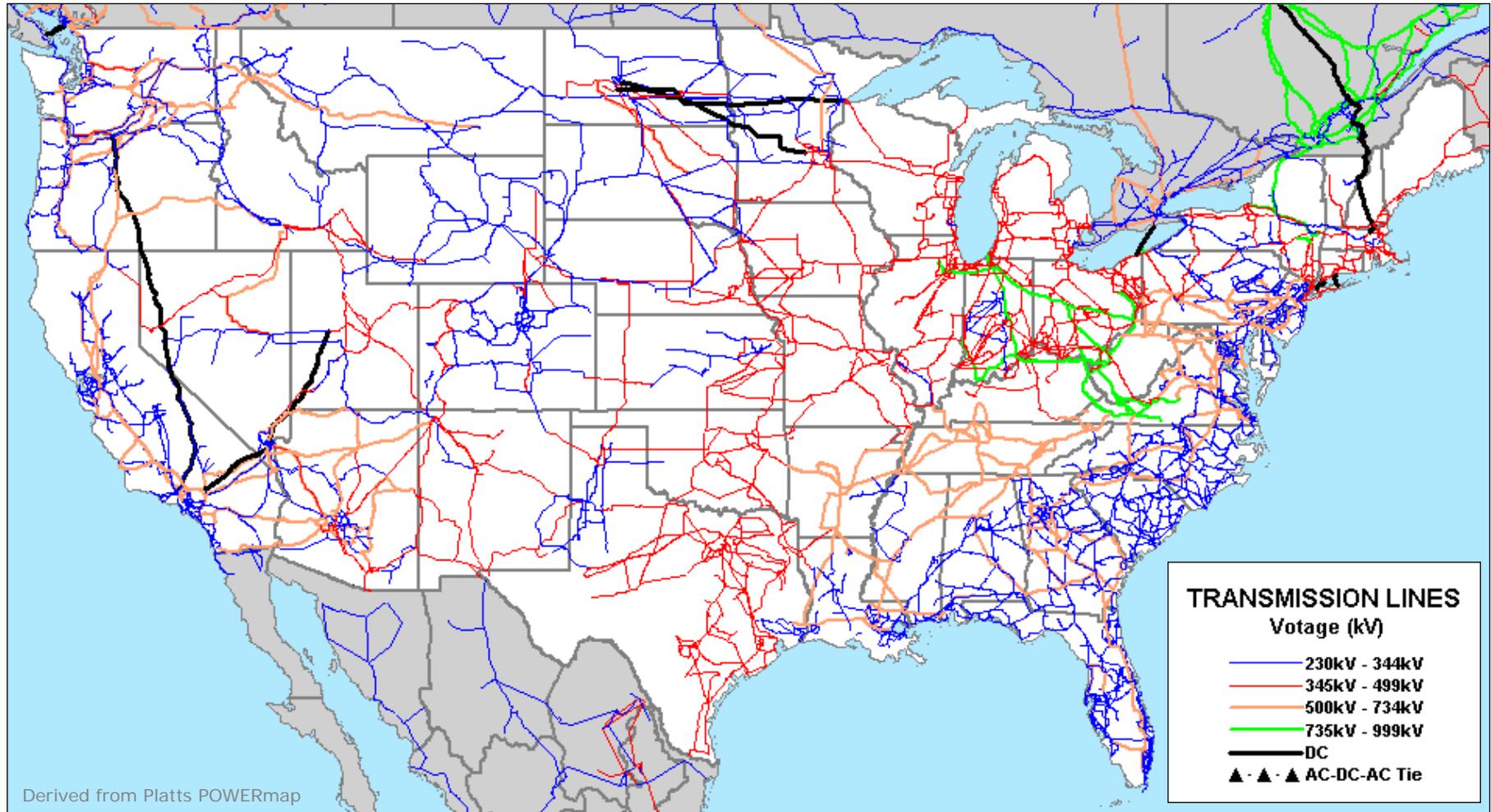
# With a modest 2% growth in electricity demand, projected available generation capacity will be able to meet demand through 2020.



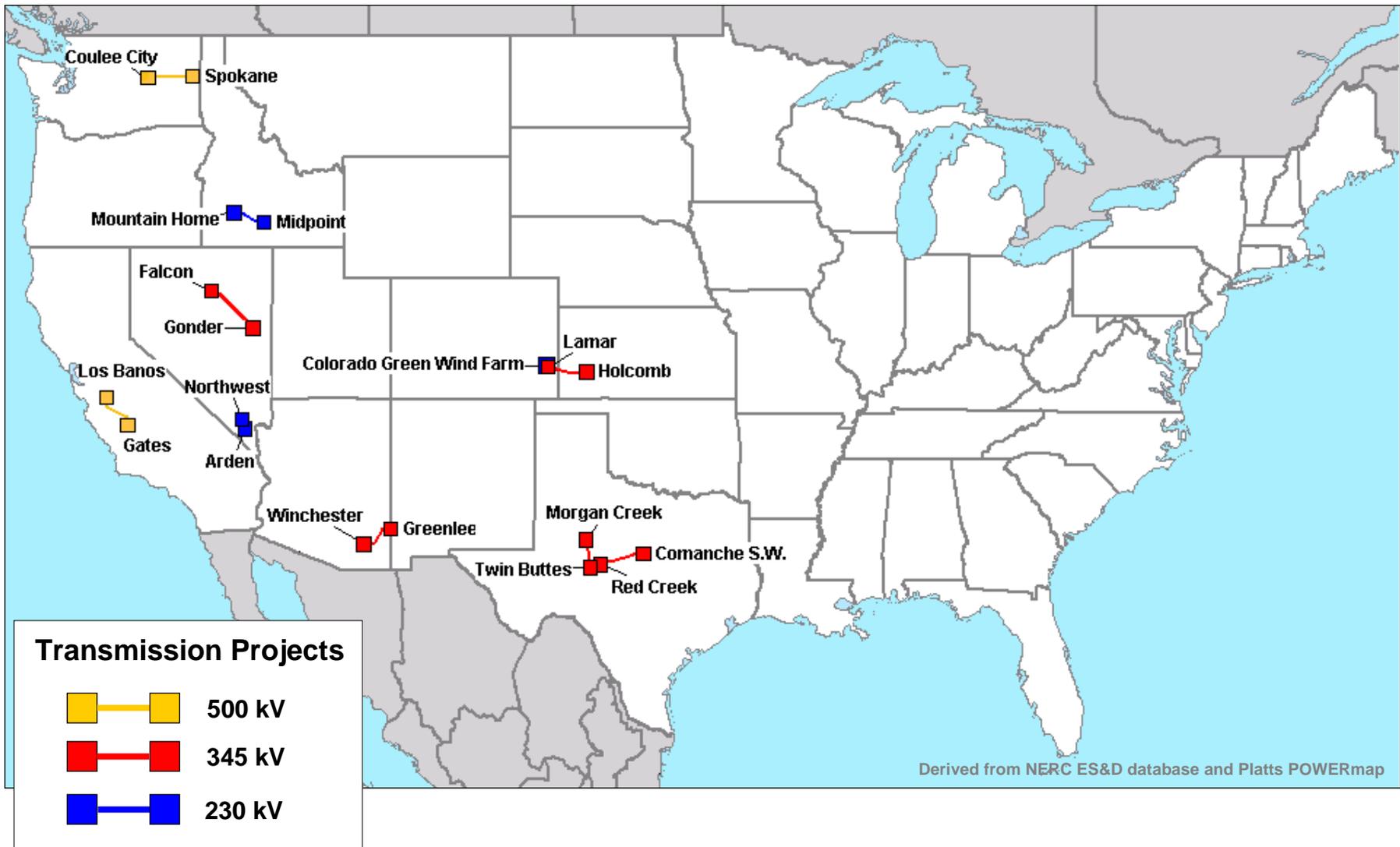
Net additions included retirements and plants currently under construction and in advanced development.

Source: Based on data from EEA January 2005, PLATTS PowerDat and NewGen.

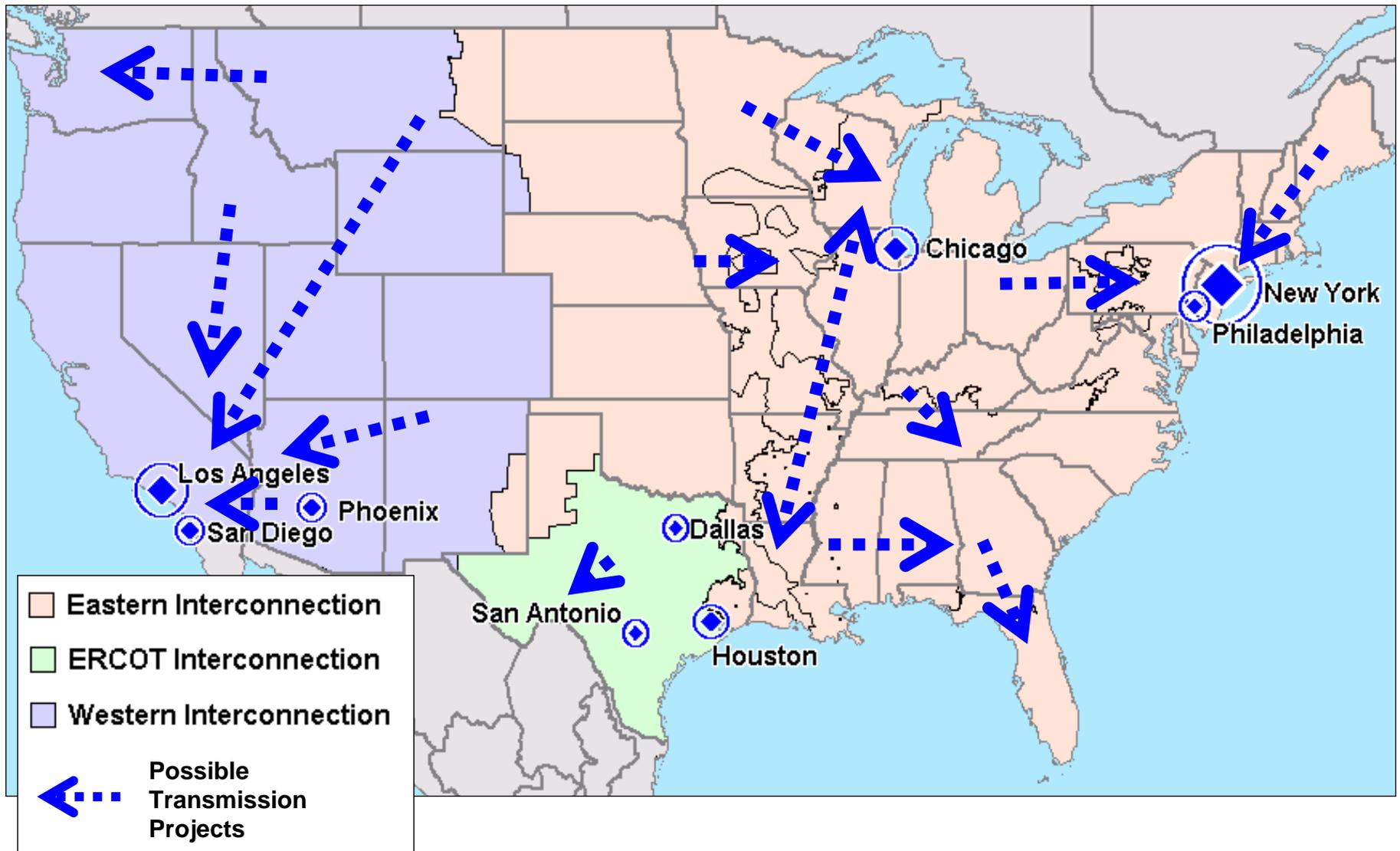
# Existing Bulk Electric Transmission Grid



# Ten Transmission Projects completed February 2003 – March 2005 (GTE 230kV & GTE 40 miles)



# Electric Transmission Needed to meet 2025 demand

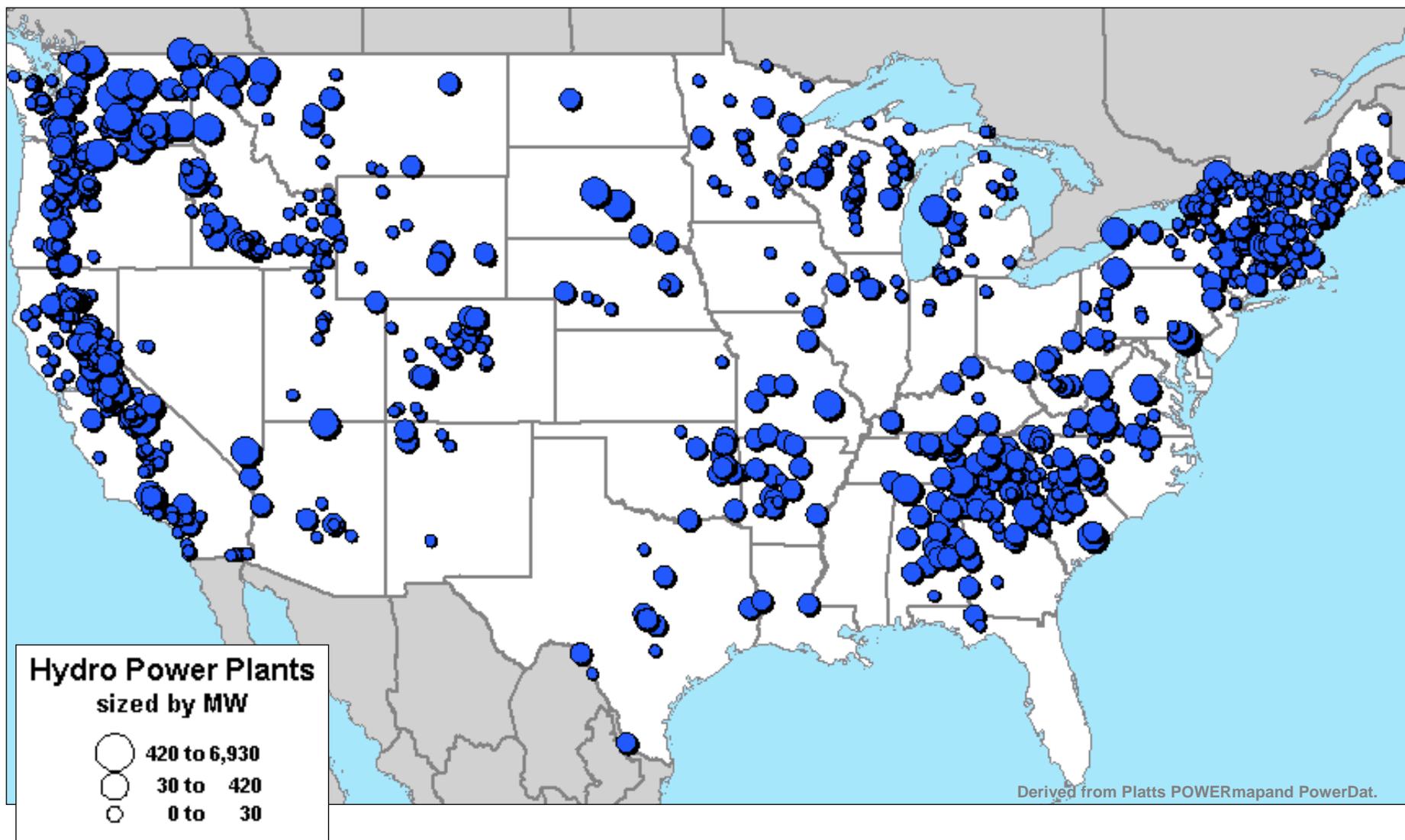


# Impediments to new electric transmission

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- ⇒ **Determining Need**
- ⇒ **Cost Recovery**
- ⇒ **Siting**
- ⇒ **Absence of effective forum for resolving multi-state disagreements**

# Licensed and exempted hydropower projects provide 59 GW of electric generation capacity



# Future hydropower will increasingly use low-head and low-power sites.

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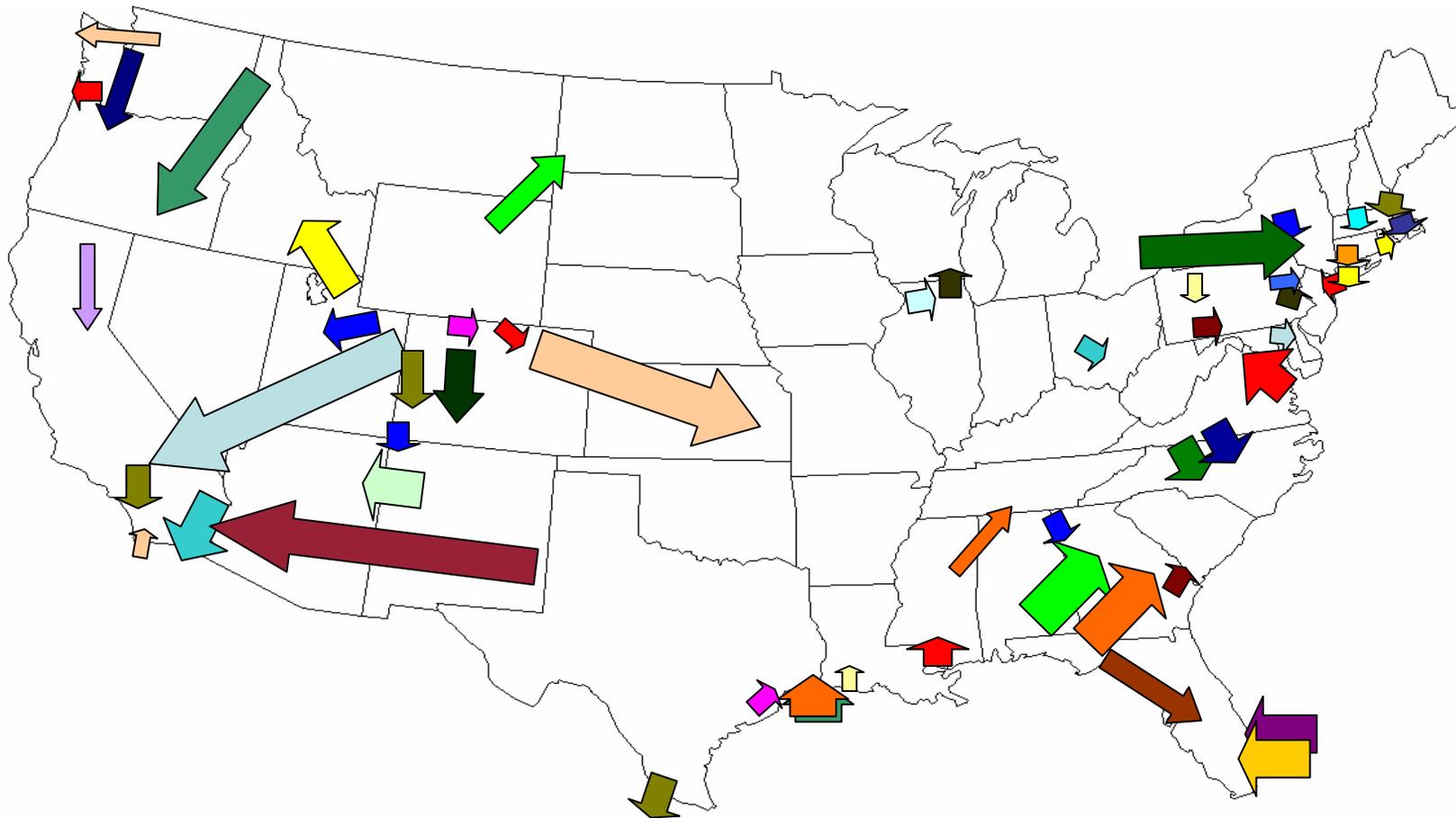
# Natural Gas

# Existing major natural gas pipelines in U.S. and Canada



# Major Pipeline Projects Certificated (MMcf/d)

June 2001 to March 2005

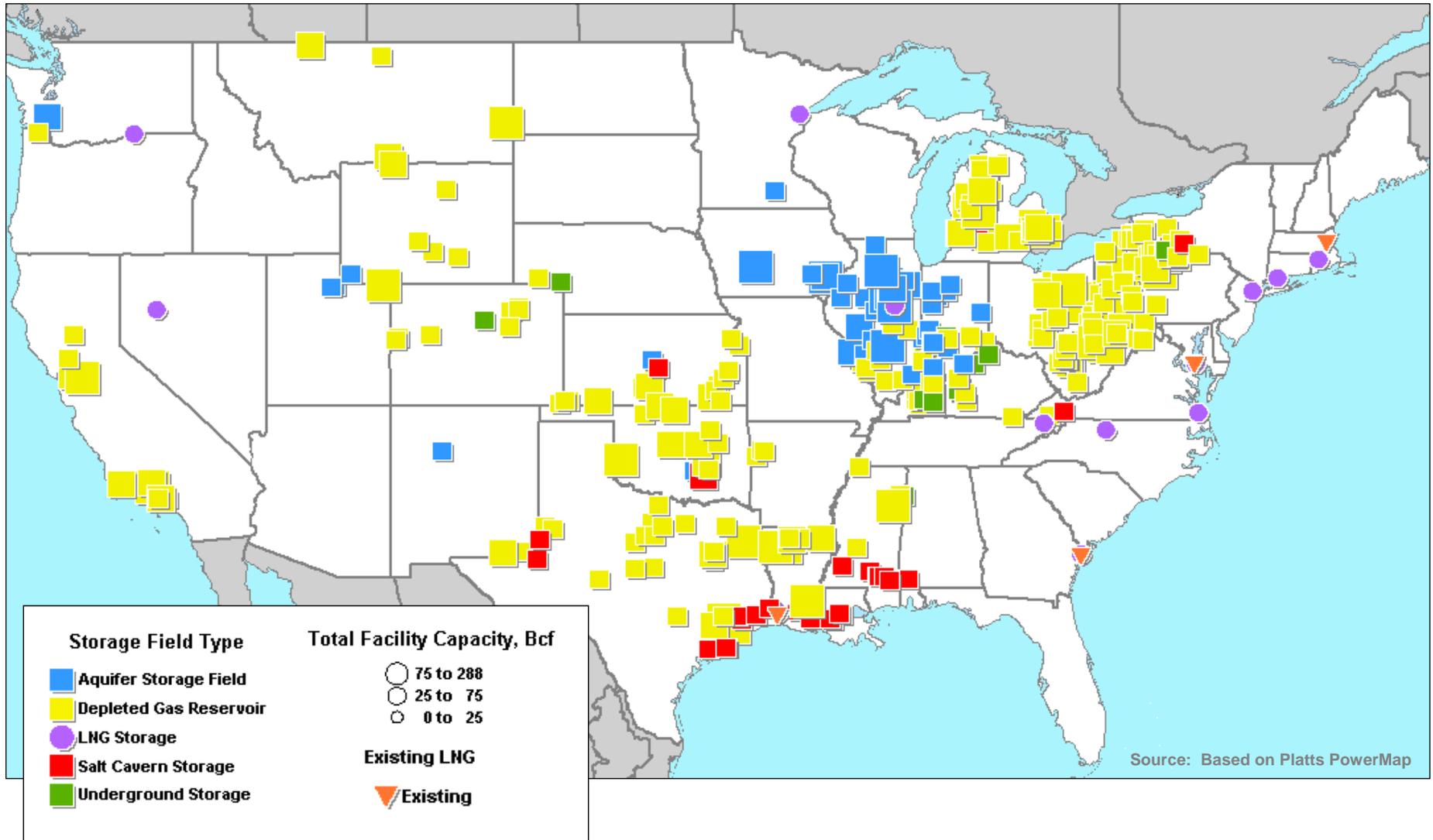


# Future natural gas pipeline capacity will be required to meet demand

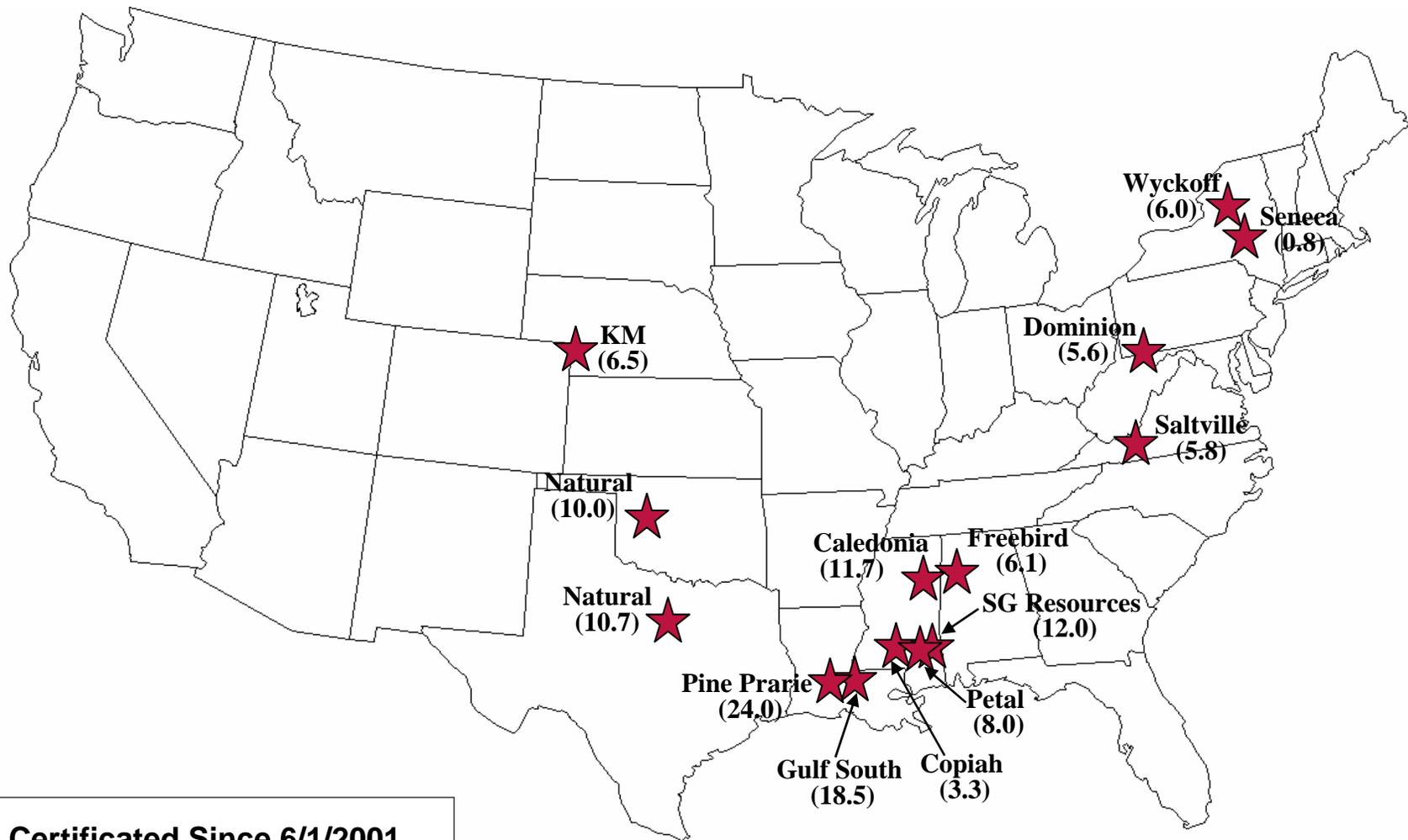
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# Existing major natural gas storage and LNG facilities



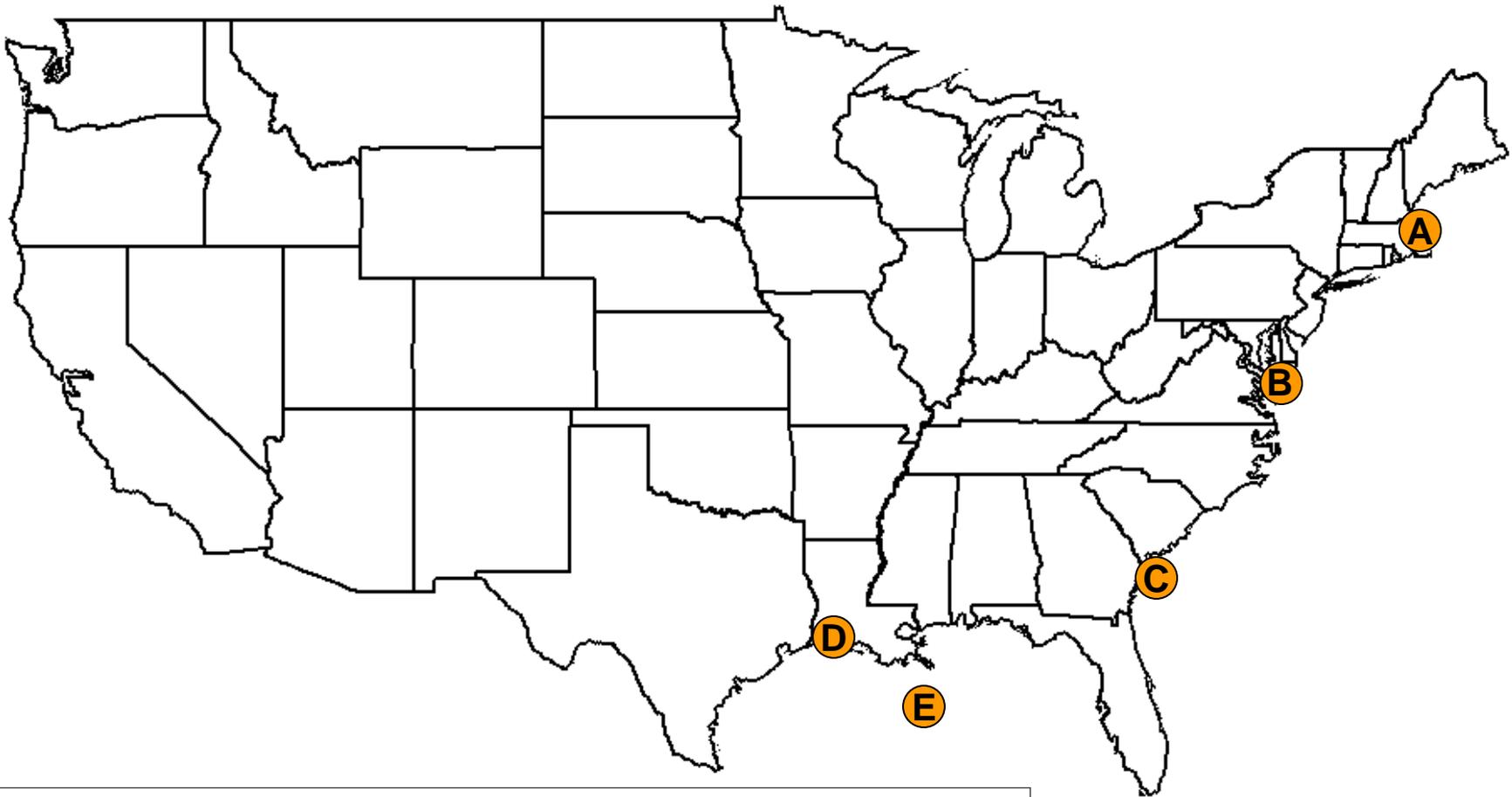
# Storage Projects (capacity in Bcf)



★ Certified Since 6/1/2001

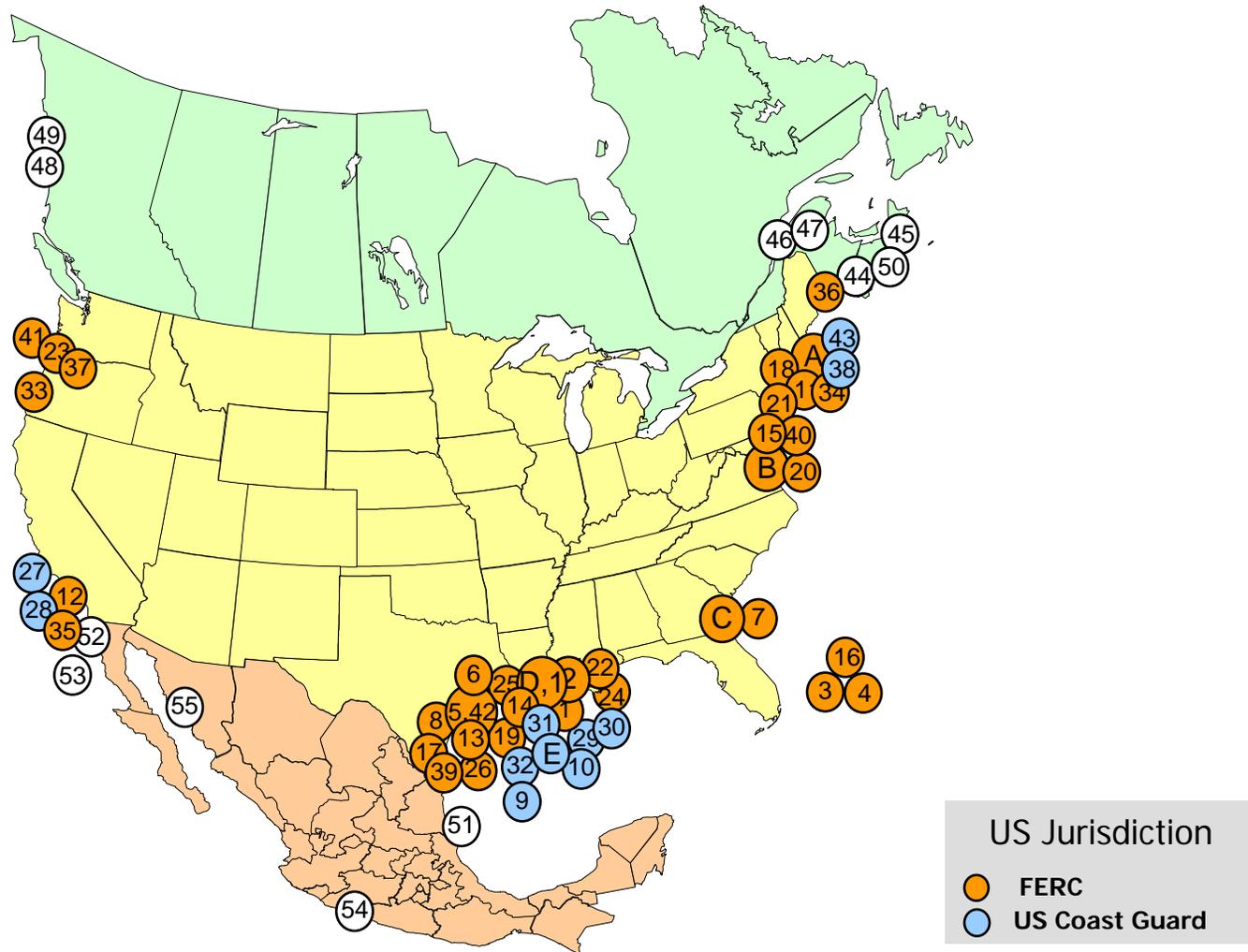


# Existing LNG import facilities



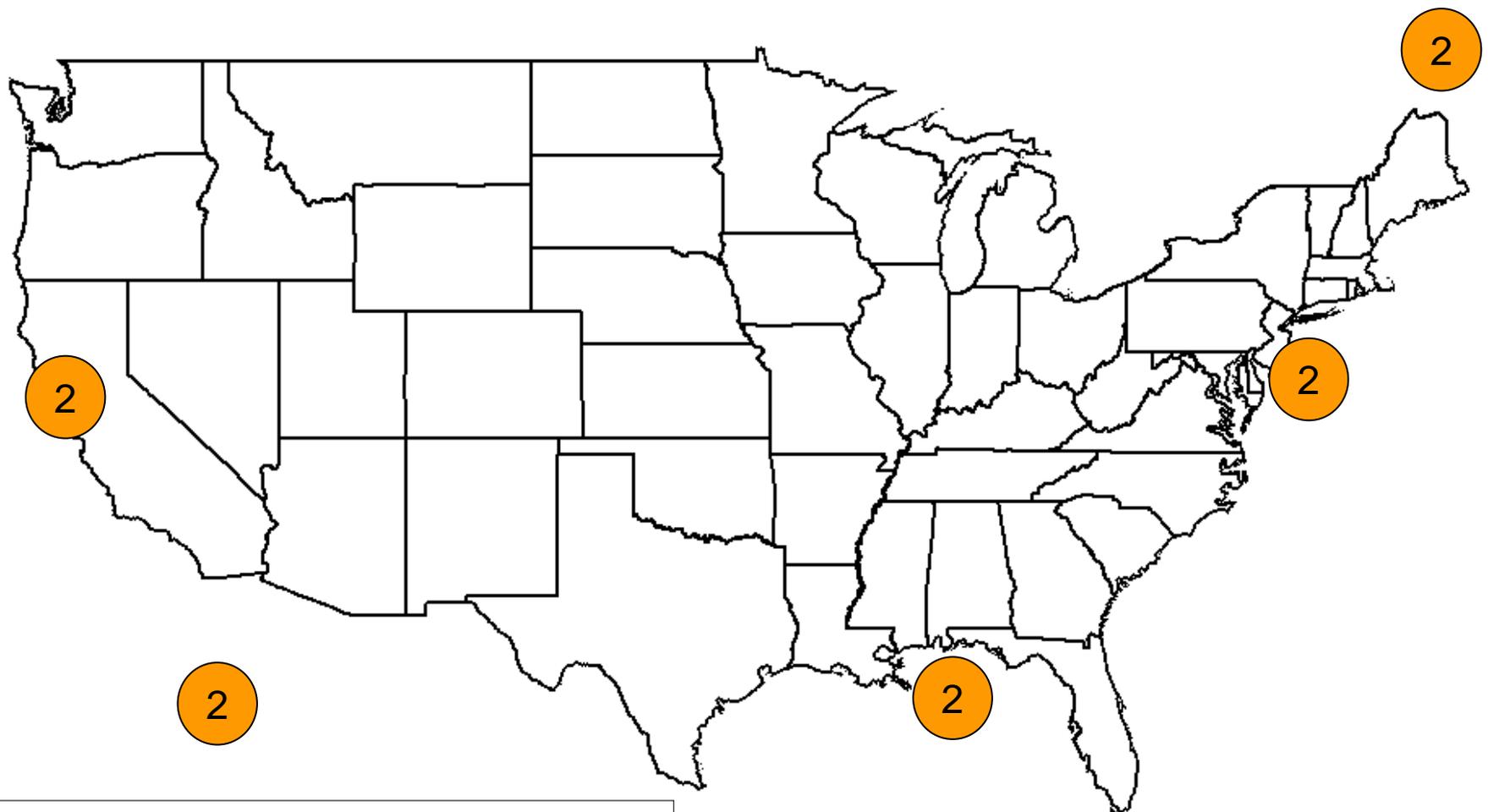
- A. Everett, MA: 1.035 Bcfd (Tractebel - DOMAC)
- B. Cove Point, MD: 1.0 Bcfd (Dominion - Cove Point LNG)
- C. Elba Island, GA: 0.68 Bcfd (El Paso - Southern LNG)
- D. Lake Charles, LA : 1.0 Bcfd (Southern Union – Trunkline NG)
- E. Gulf of Mexico: 0.5 Bcf/d (Gulf Gateway Energy Bridge – Excelerate Energy)

# Existing, Proposed and Potential North American LNG Terminals



\* US pipeline approved; LNG terminal pending in Bahamas  
 \*\* These projects have been approved by the Mexican and Canadian authorities

# Future LNG sites will help to bring supply to demand



Approximate number of additional LNG terminals needed to meet short-term demand

# Crisis or Renaissance?

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- ⇒ **Crisis – already been there, done that**
  - ⇒ **2000 energy crisis**
  - ⇒ **Enron**
  - ⇒ **Commodity price increases**
  - ⇒ **2003 Blackout**
  
- ⇒ **Renaissance – the only alternative!**
  - ⇒ **Loud price signals**
  - ⇒ **Clearer market & cost recovery rules**
  - ⇒ **Generally sufficient infrastructure**
  - ⇒ **Customer-focused industry**

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**The Point is...**

**It's All About the Customer!**