



U.S. Wind Industry: Market & Policy Update

Elizabeth Salerno

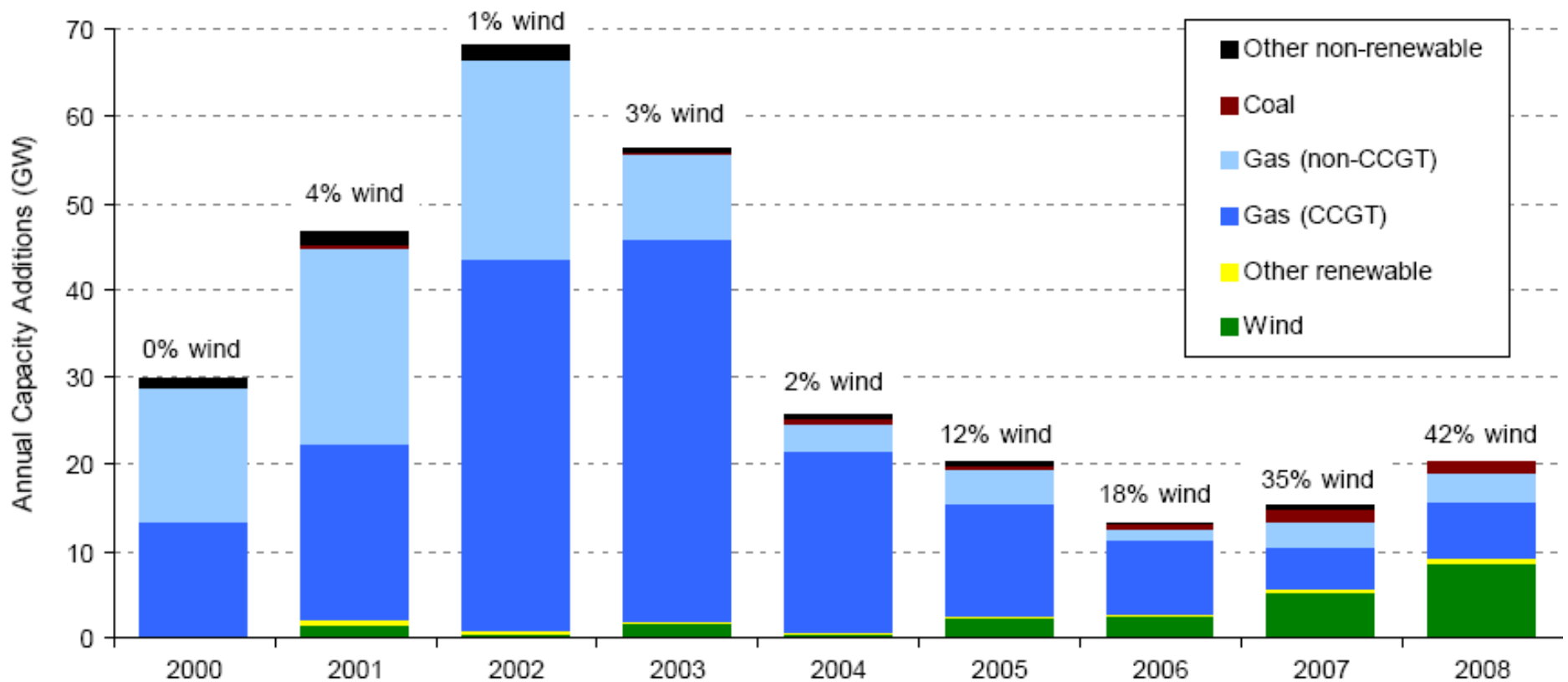
Director, Industry Data & Analysis
American Wind Energy Association



U.S. Wind Status in 2008

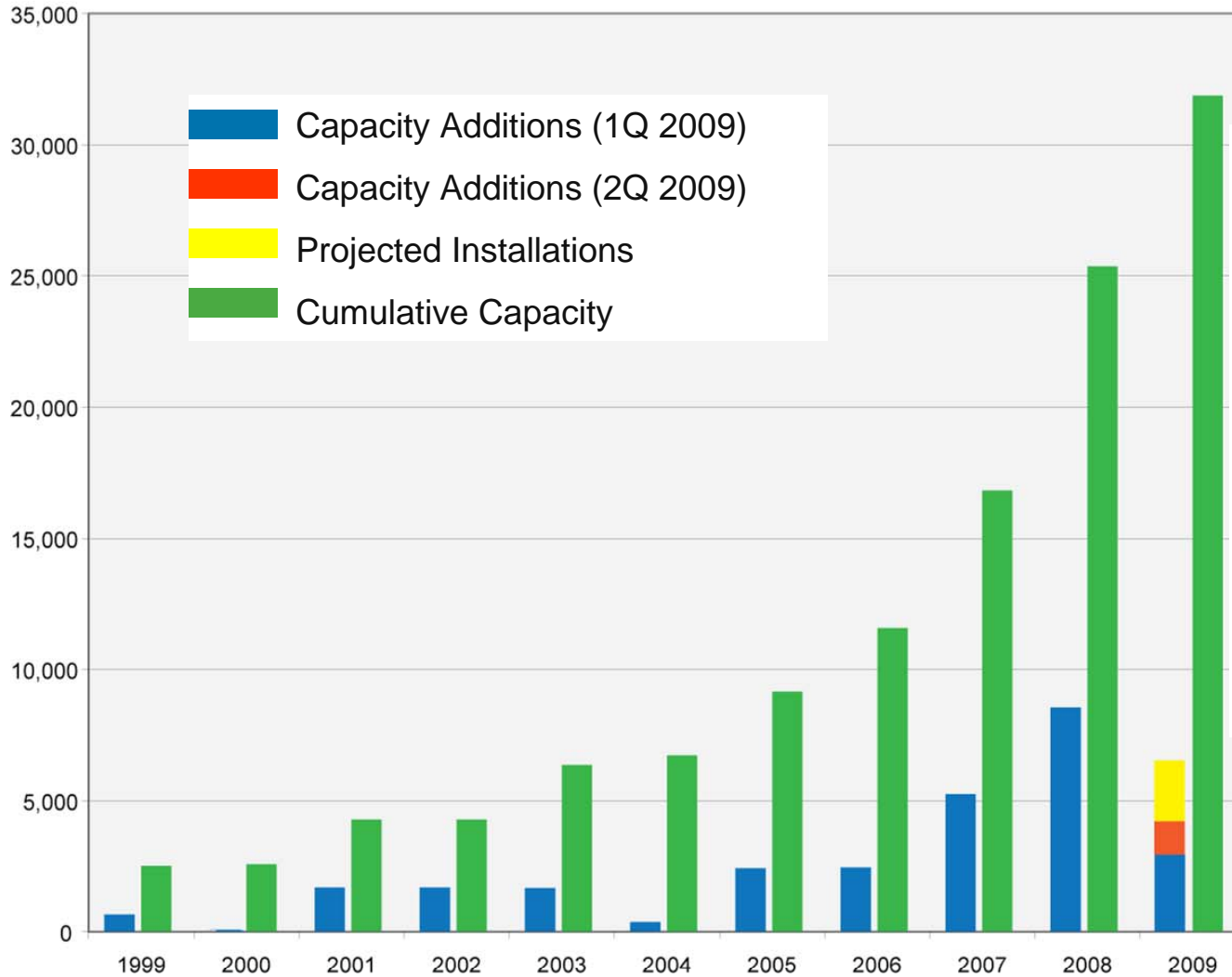
- ✓ Installed **8,500 MW** in 2008, over 5,000 turbines
- ✓ Average Turbine size of **1.67 MW**
- ✓ Average project size **80 MW**
- ✓ Total installation of **25,400 MW**
- ✓ **\$17 billion** of investment in 2008
- ✓ **50% Growth** in 2008
- ✓ **30%** Compounded Annual Growth Rate for **5 years**

New Energy Capacity in the U.S.



Source: U.S. Department of Energy, 2009

2nd Quarter Market Report



• 1Q 2009: 2,818 MW

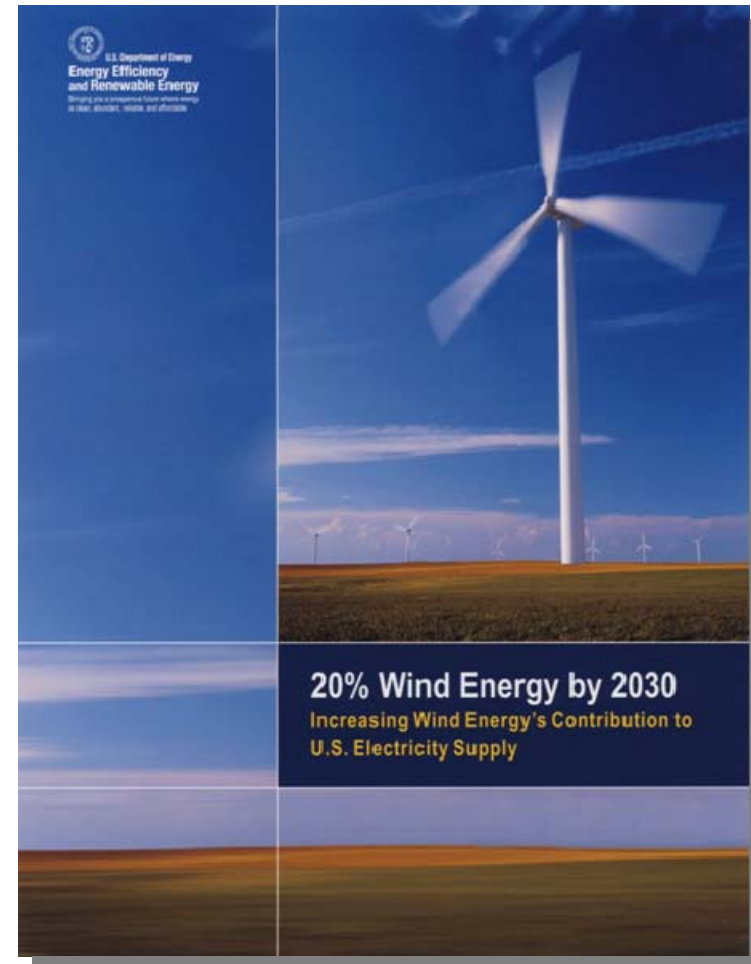
• 2Q 2009: 1,249 MW

• >5,500 MW under construction (not necessarily all for this year)

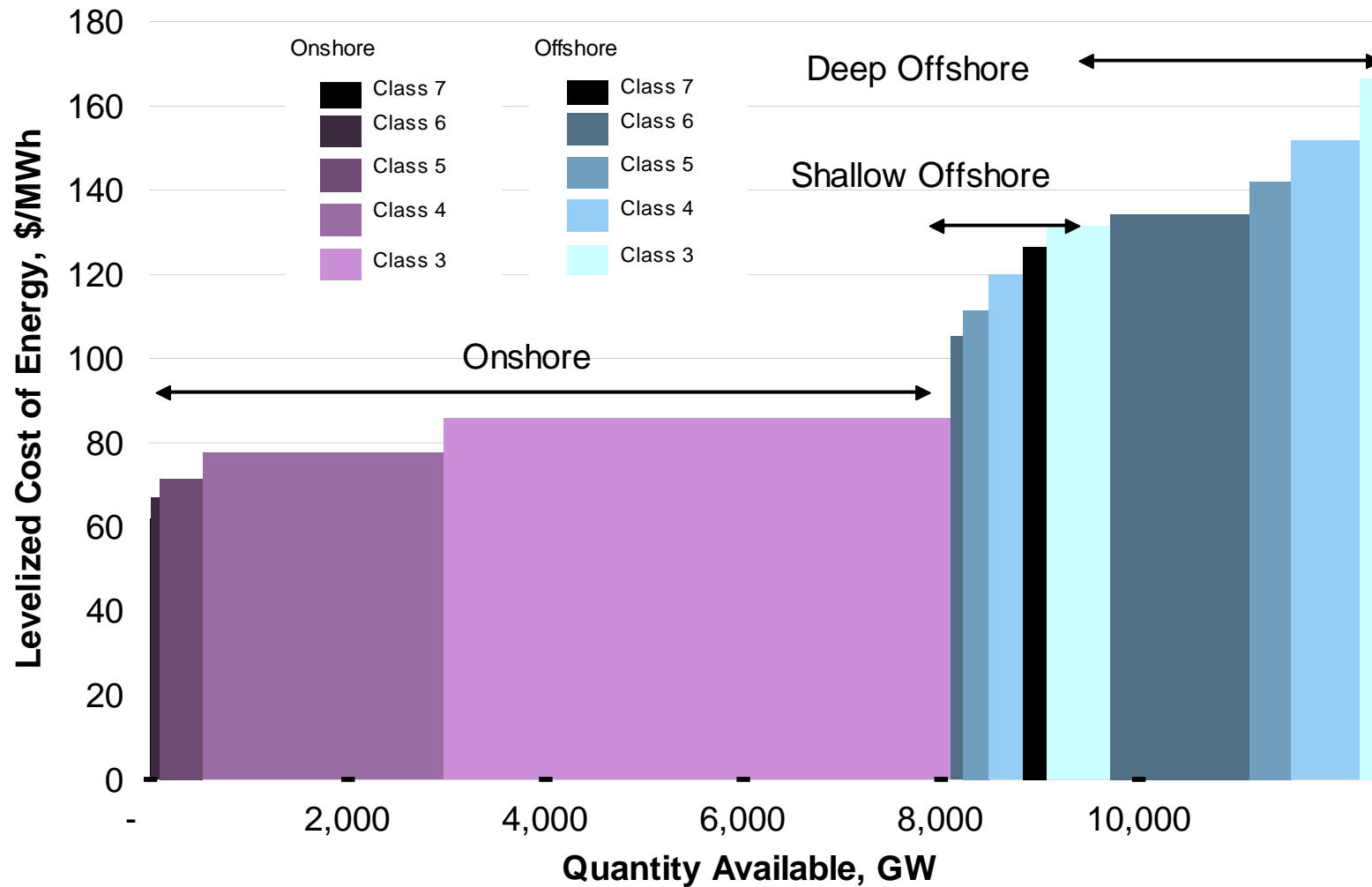
20% Wind Energy by 2030

- **U.S. Department of Energy:**

“The U.S. possesses sufficient and affordable wind resources to obtain at least 20% of its electricity from wind by the year 2030.”
- **Release May 2008**



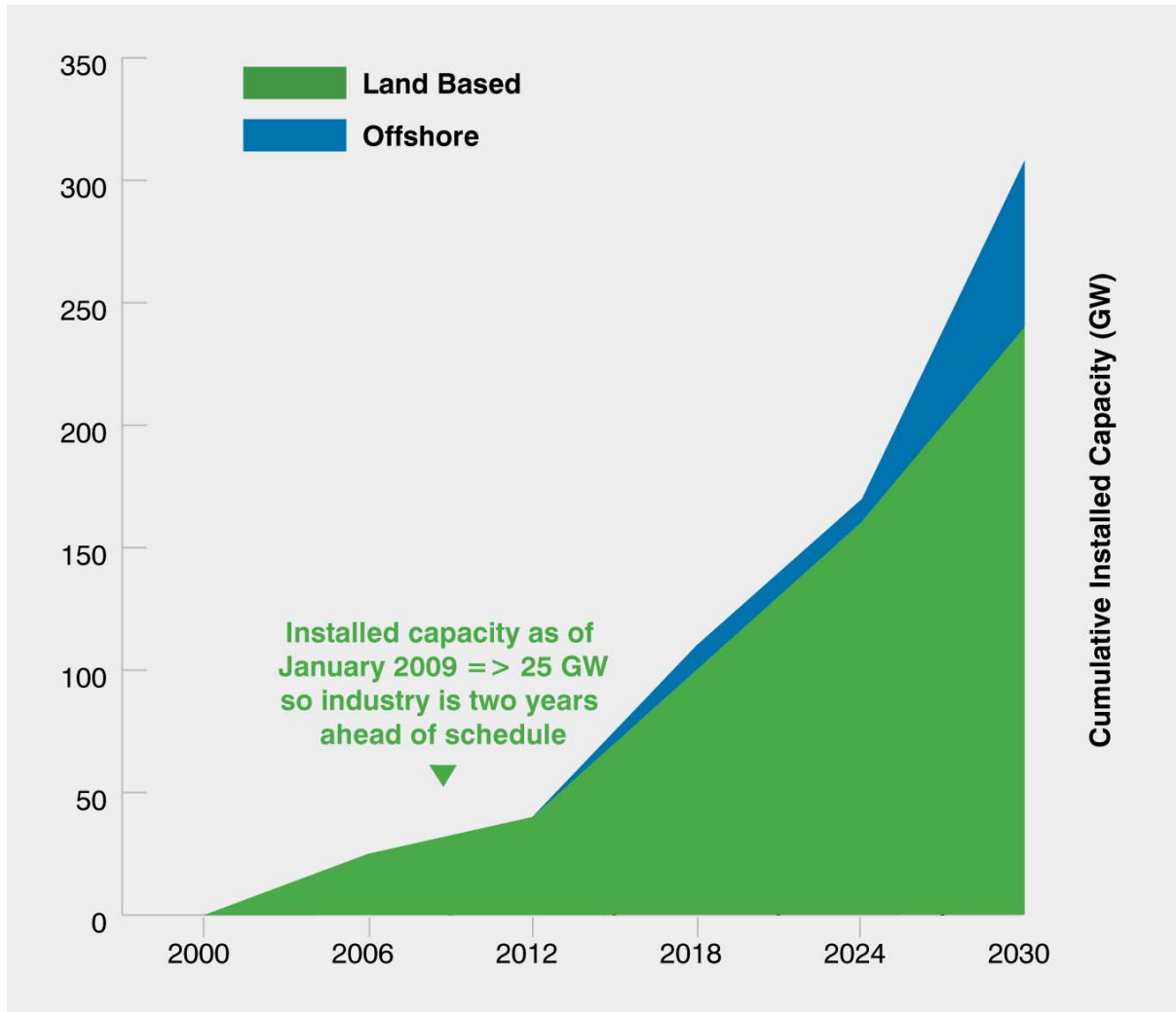
Resource Potential Exceeds Total Electricity Demand



2010 Costs w/o PTC, w/o Transmission or Integration costs

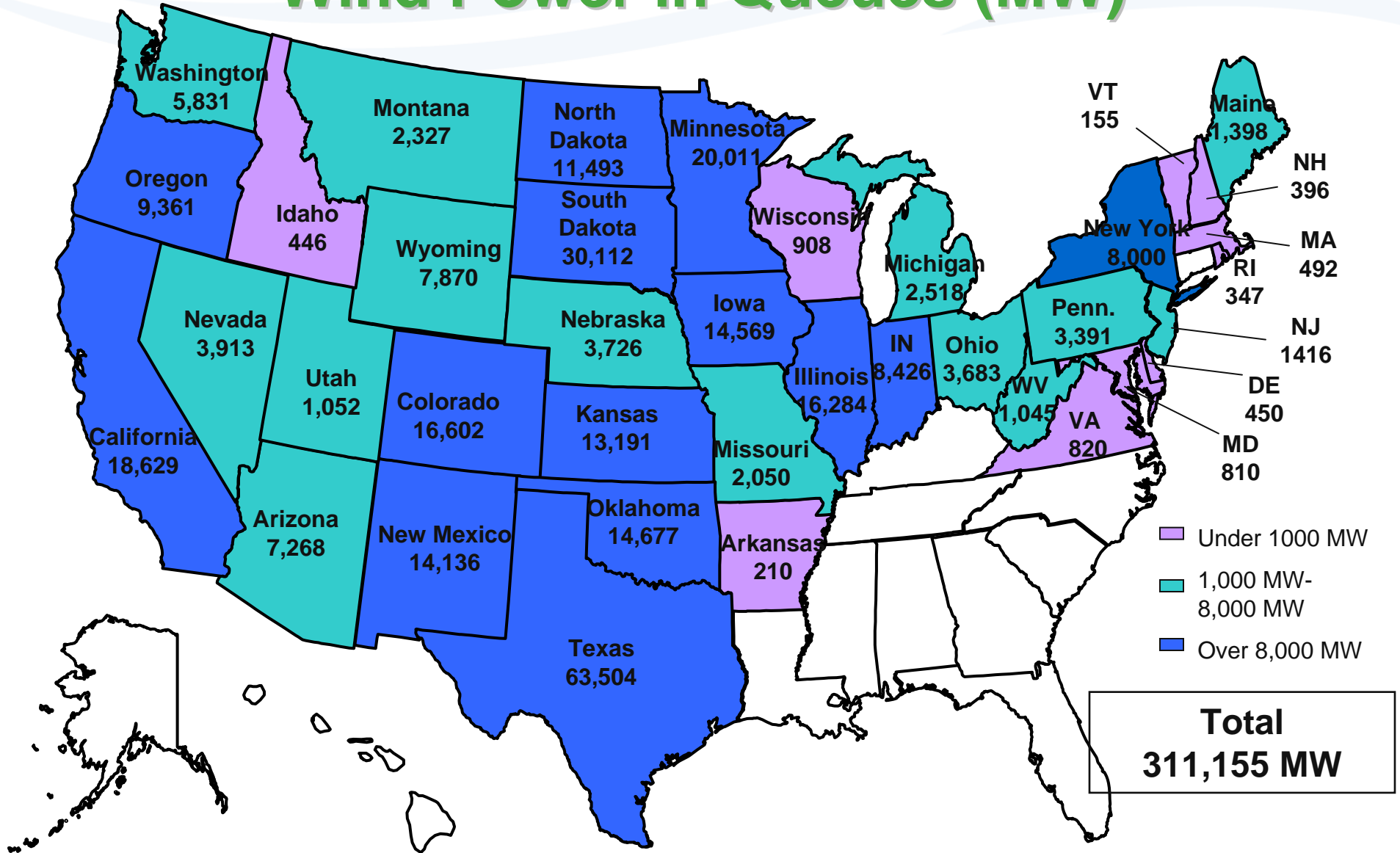
20% by 2030 Report Card

Total Wind Installation



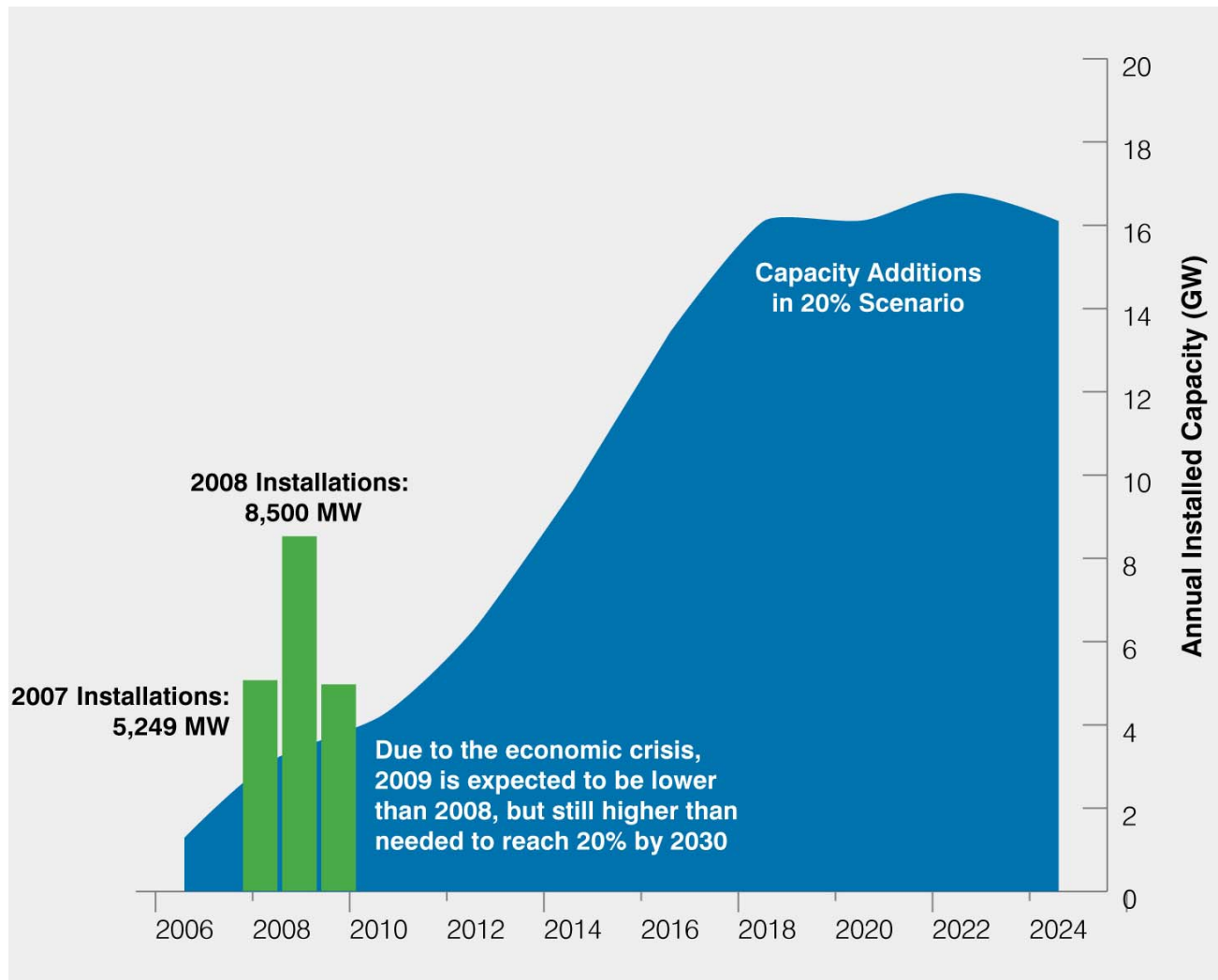
To achieve 20% wind generation in the U.S. by 2030; approximately **305,000 MW** would have to be installed.

Wind Power in Queues (MW)



20% by 2030 Report Card

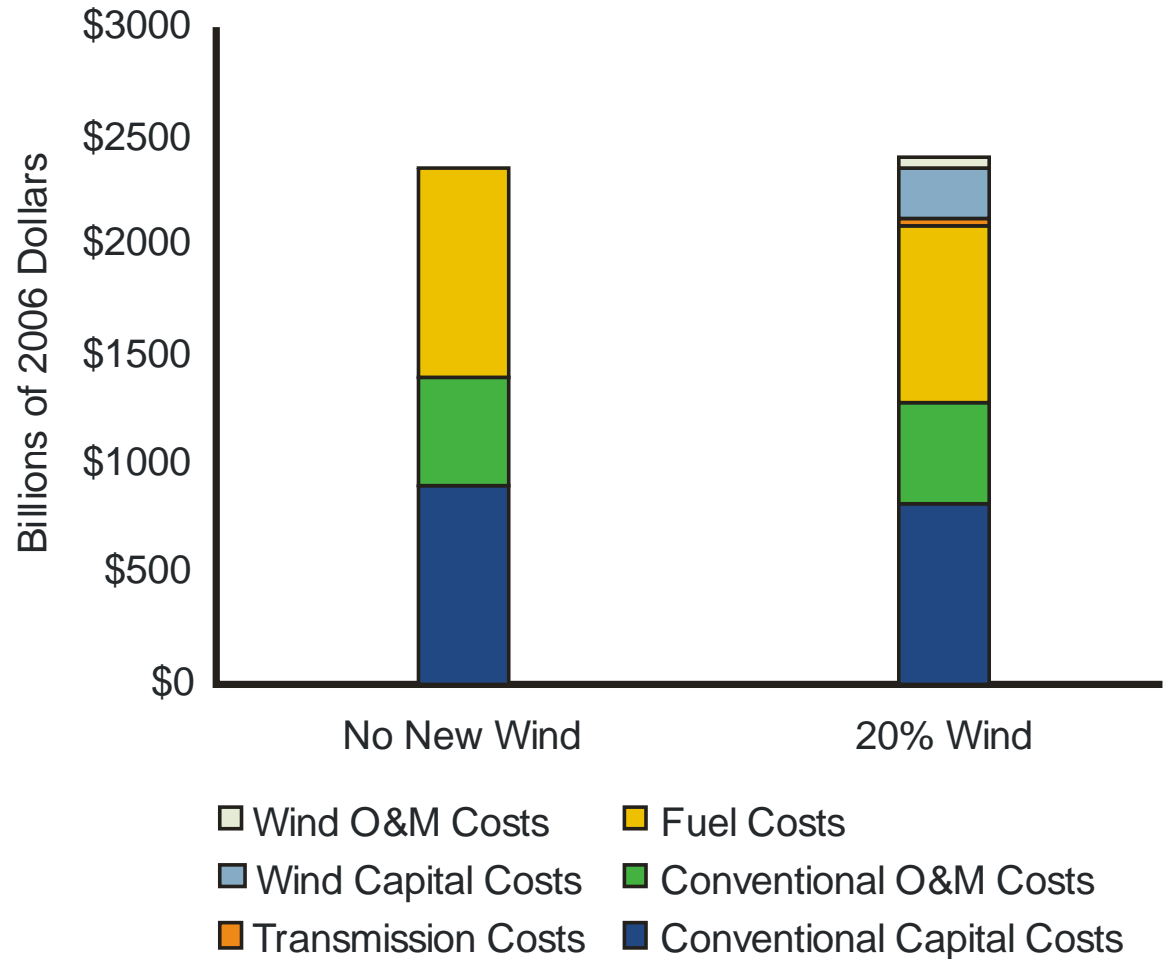
Annual Market Size



On an annual basis: Wind installations would have to increase from 8,500 MW per year in 2008, to **16,000 MW per year.**

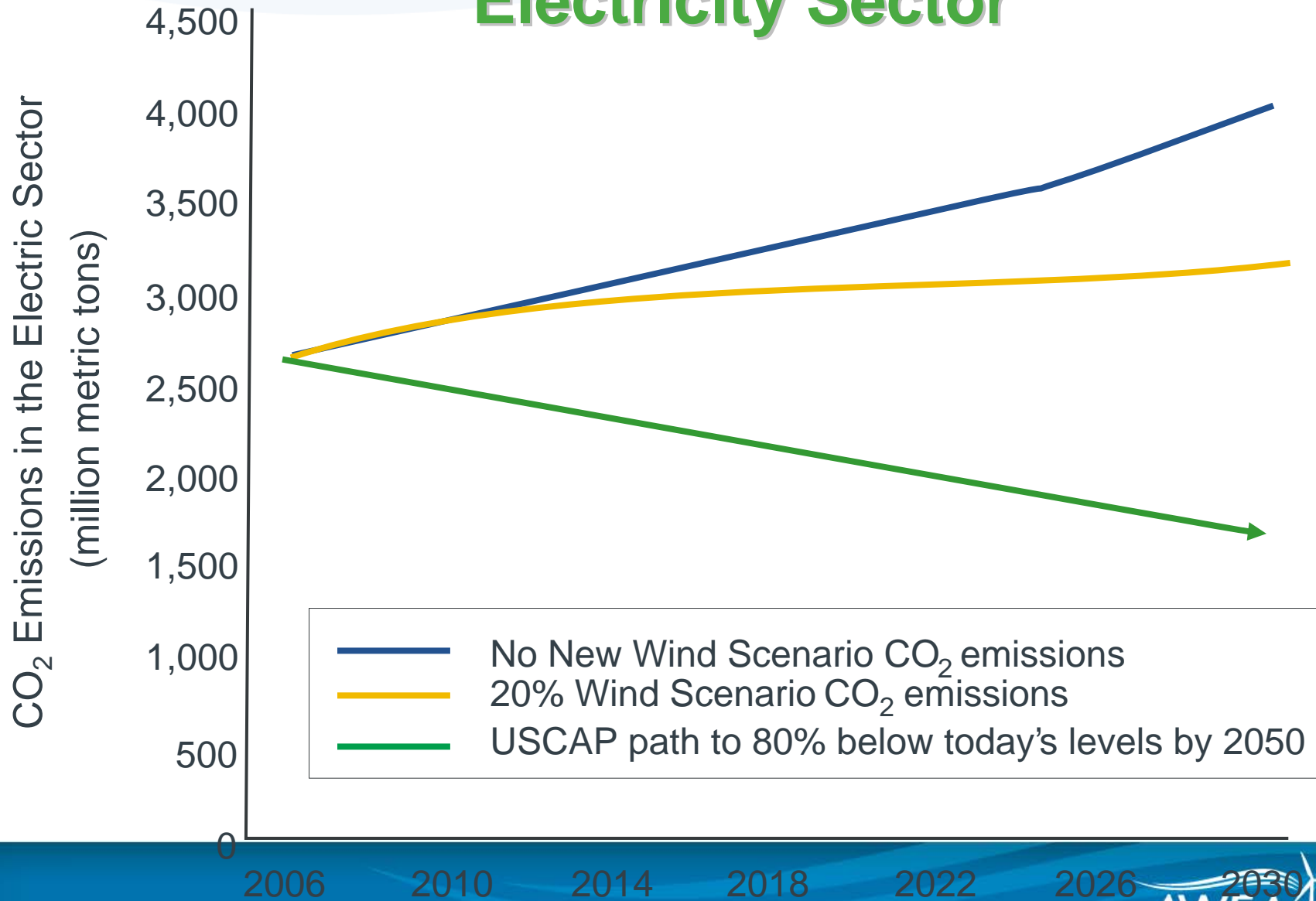
Economic Costs of 20% Wind Scenario

- 2% investment difference between 20% Wind and No New Wind



Source: U.S. DOE, 20% Wind Energy by 2030

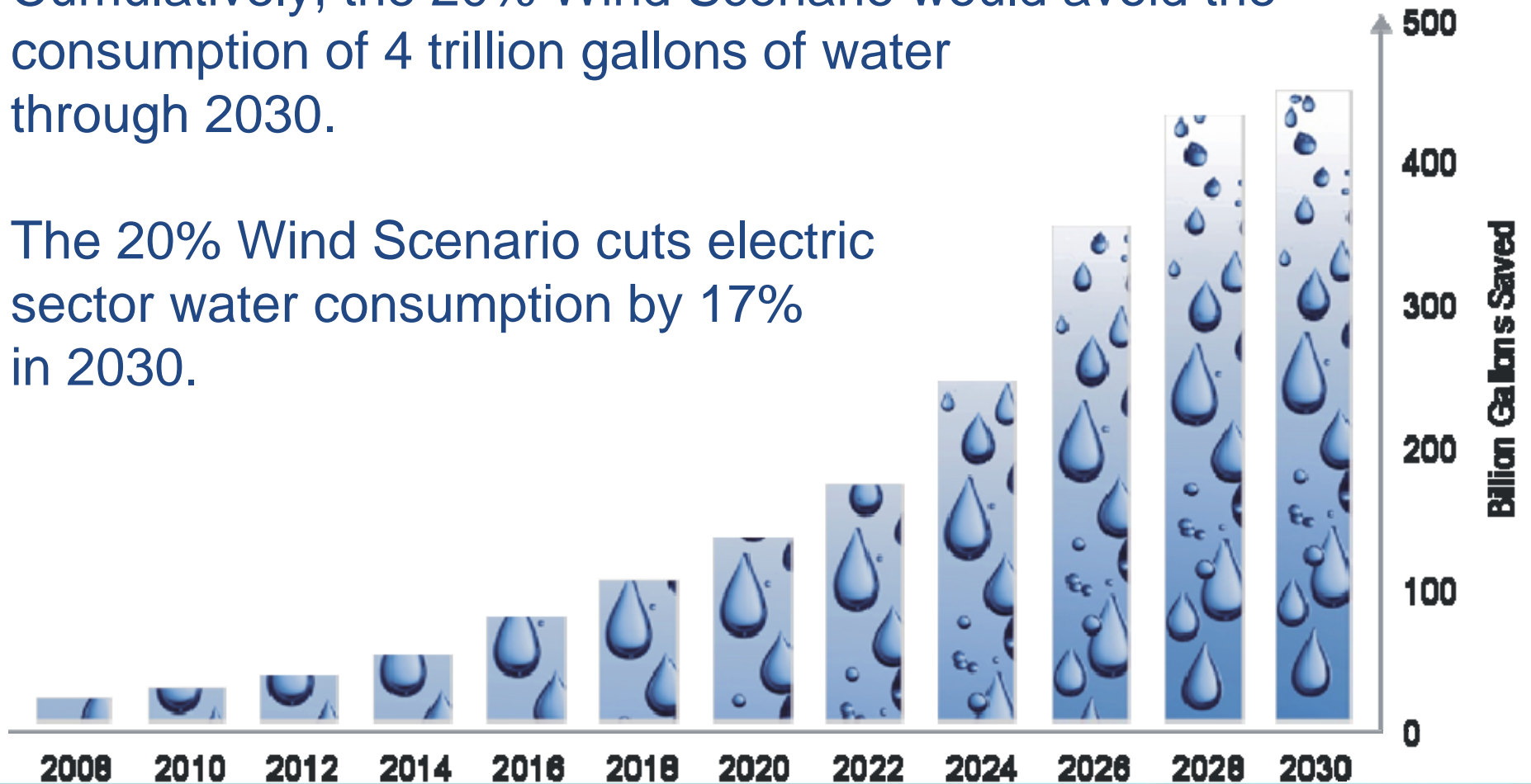
CO₂ Emissions from the Electricity Sector



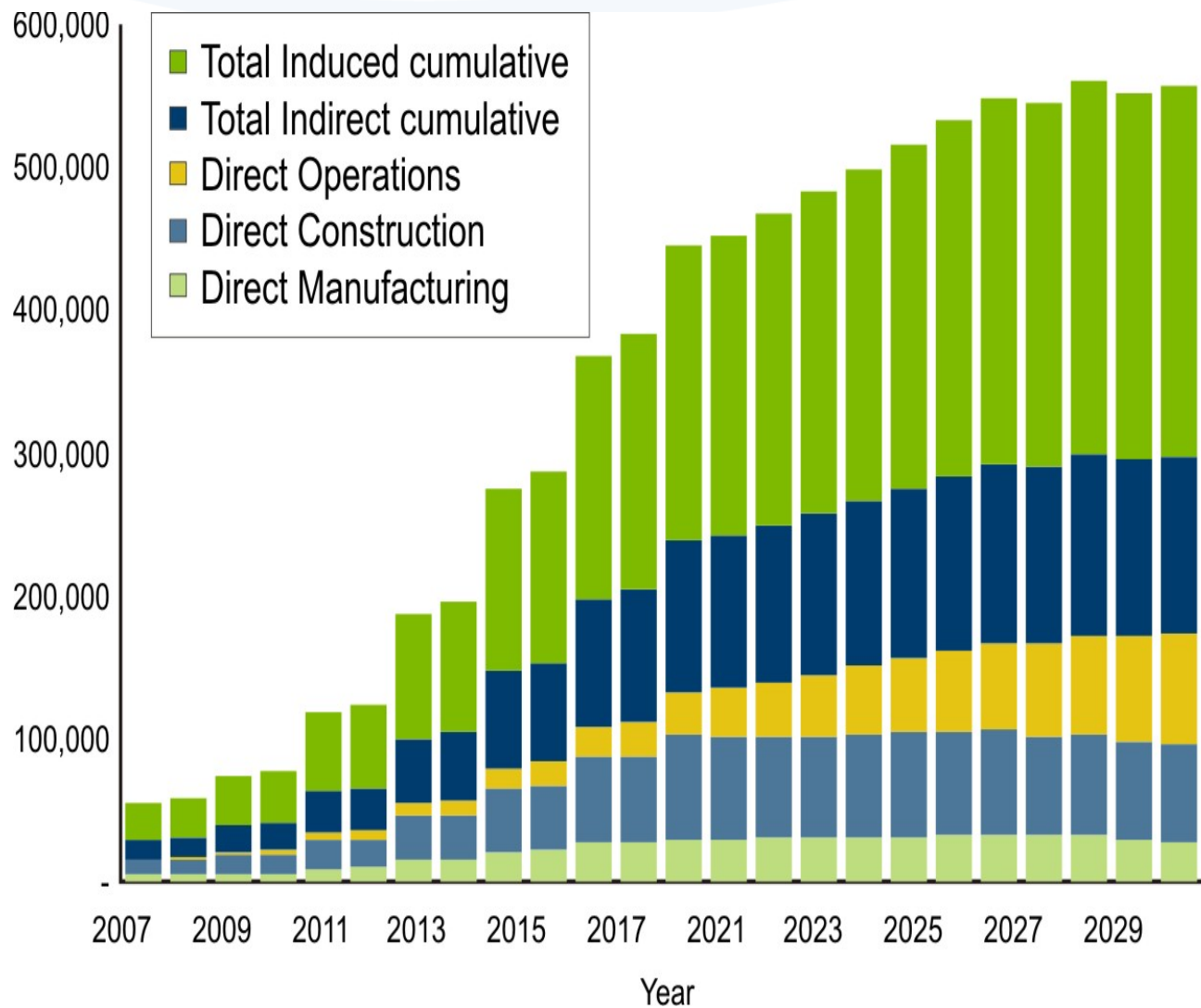
Significant Water Use Savings

Cumulatively, the 20% Wind Scenario would avoid the consumption of 4 trillion gallons of water through 2030.

The 20% Wind Scenario cuts electric sector water consumption by 17% in 2030.

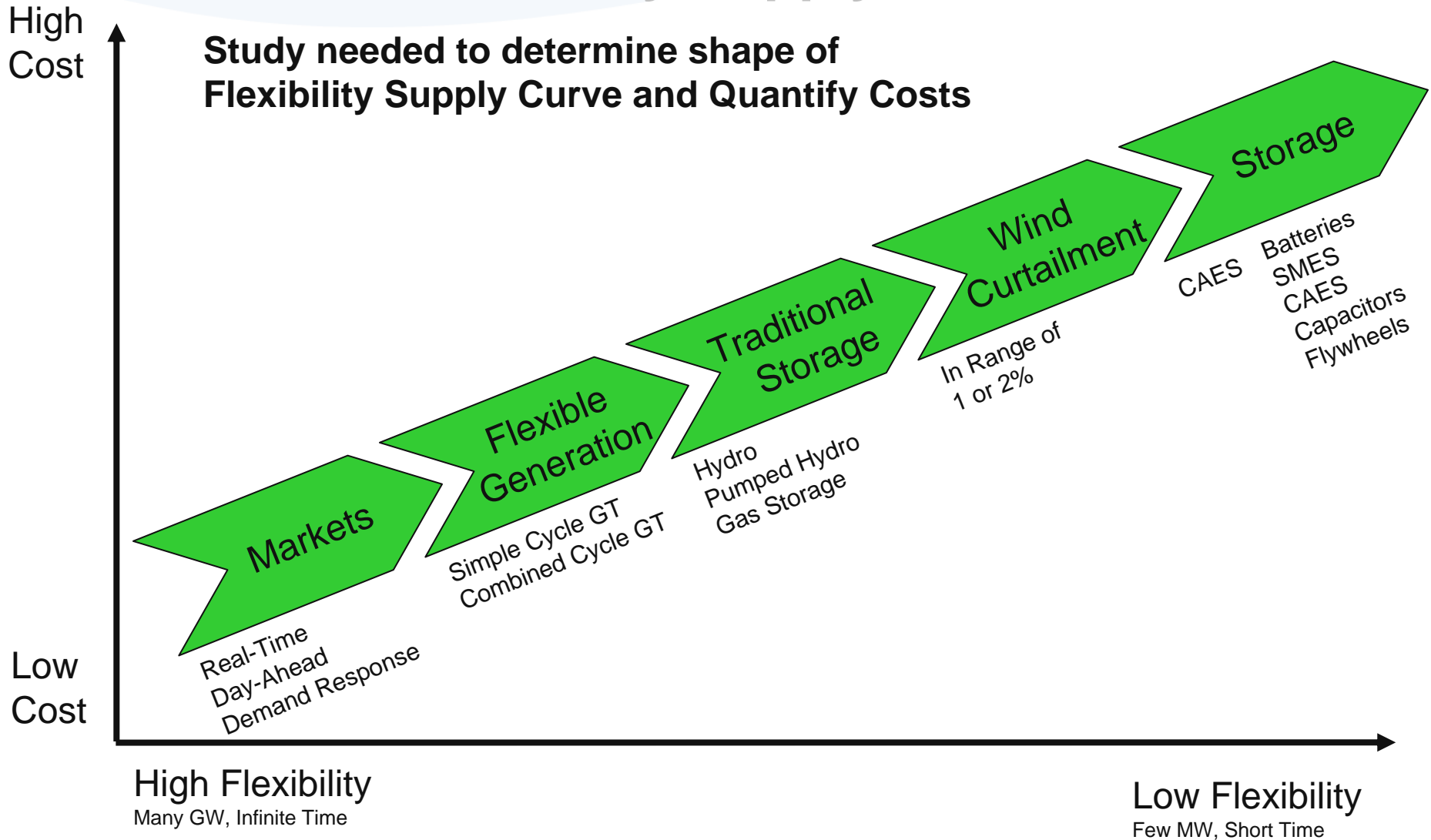


Jobs Supported by 20% Wind Scenario



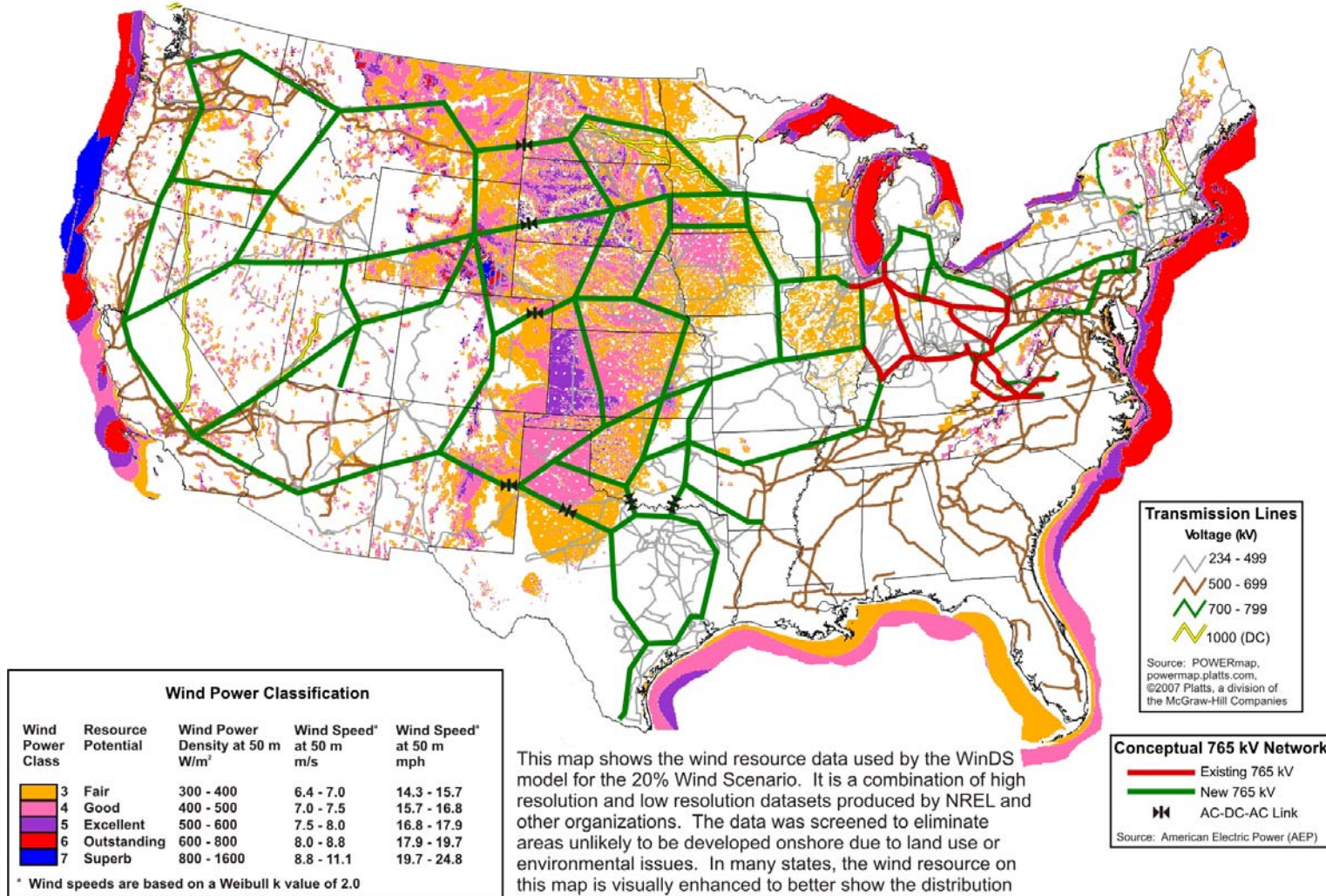
Over 500,000 total jobs would be supported by the wind industry

Integrating More Wind: Flexibility Supply Curve

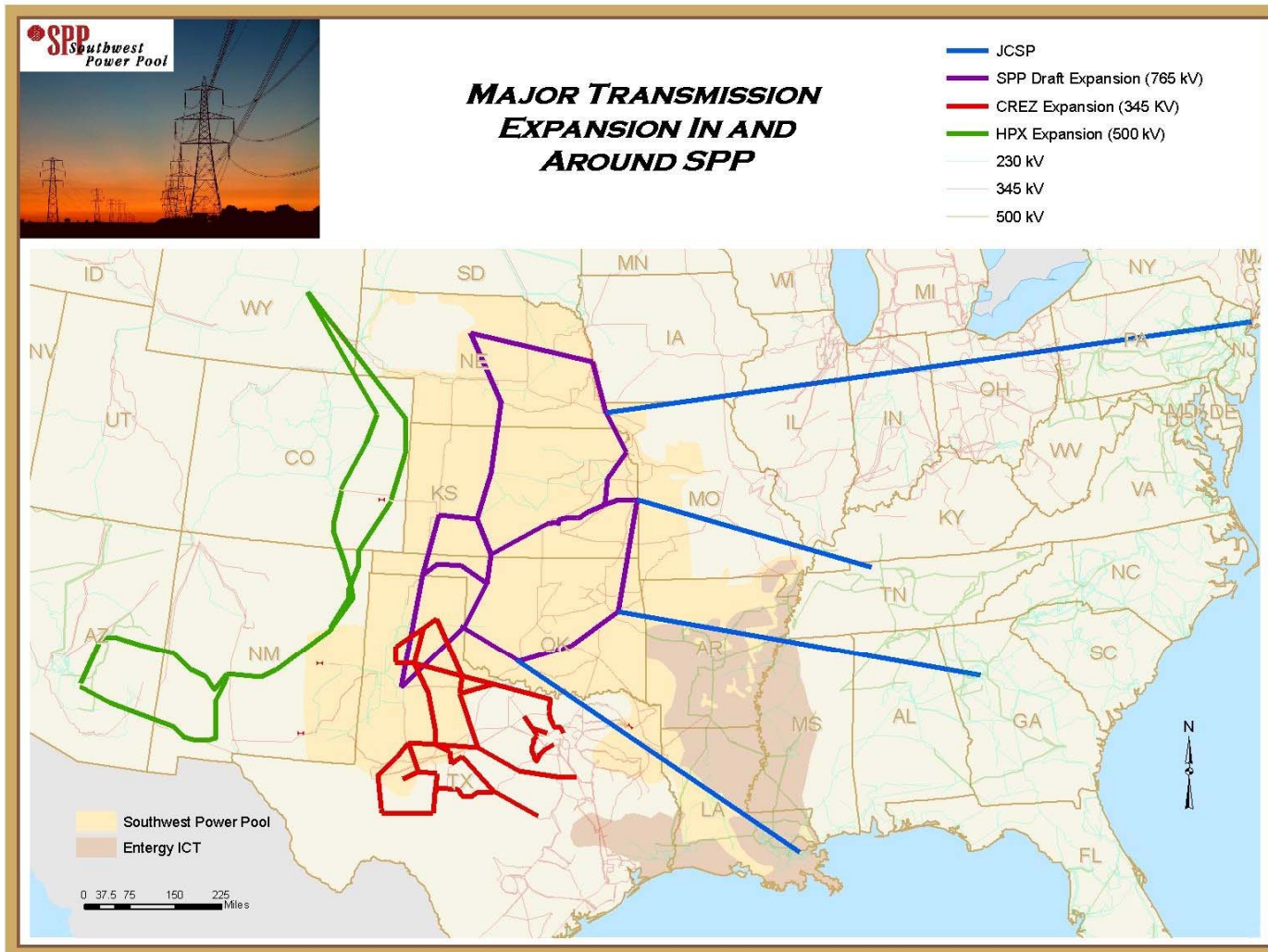


Source: DOE, Office of EERE

Conceptual Transmission Expansion Plan



Major Transmission Expansion Plans





Policy Status & Update



Legislative Priorities

- Near-term action – Recovery Act/Stimulus Bill**
 - **3-year production tax credit (PTC) extension**
 - **Option to choose grant instead of tax credit**

- Mid-Term Action**
 - **National Renewable Electricity Standard**
 - **National Transmission Legislation**

- Long-Term Action:**
 - **Effective Carbon Regulation**

American Recovery & Reinvestment Act (ARRA) or Stimulus Bill

- PTC extension through 2012
- Temporary ability to claim 30% Investment Tax Credit (ITC), and receive Treasury grant in its place
- Small wind turbines (<100 kW) now eligible for full 30% ITC
- New 30% manufacturing tax credit
- New loan guarantee program
- R&D funding
- Transmission funding

National Renewable Energy Legislation

U.S. House of Representatives

- Energy & Climate Bill passed full House of Representatives on June 26 by 219-212 vote
- Includes 20% Renewable Electricity Standard by 2020

U.S. Senate Energy Legislation

- Energy bill reported out of energy committee June 17
- Potentially to be combined with climate legislation this fall.
- 15% Renewable Electricity Standard by 2020.

Thank You for your time!

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