

# Wind: Powering a Cleaner, Stronger America

American Wind Energy Association, 2008

# Trade Association Overview

# The National Trade Association representing the Wind Industry in the U.S.

Over 1300 Business Members, including:

- Turbine Manufacturers
- Component Suppliers
- Project Developers
- Electric Utilities
- Lawyers, Consultants, Investors, etc.

# Trade Associations Facilitate Business for Members by:

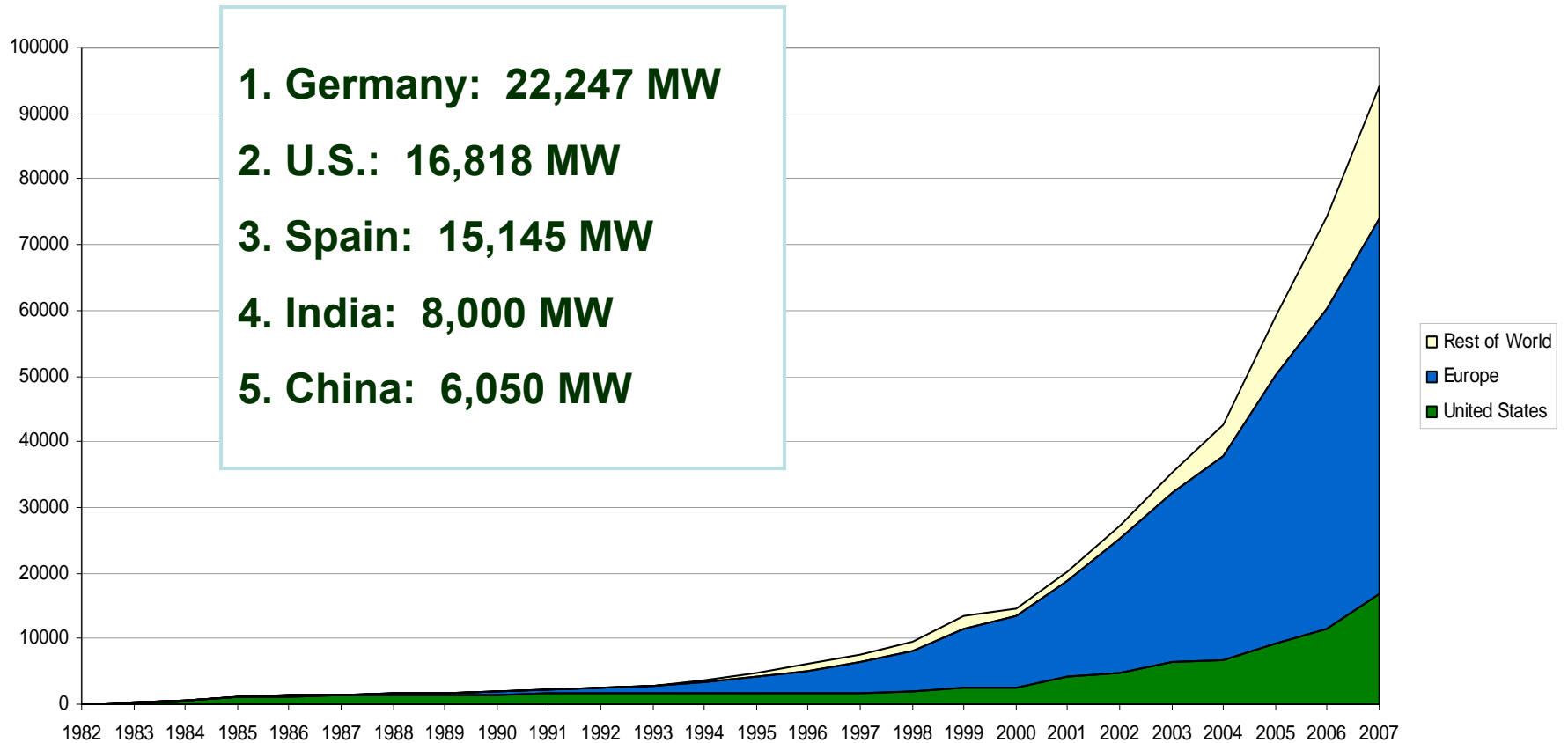
- Using Policy as Leverage on the Market
- Providing Liaison to the Press and key audiences such as:
  - Policy Makers (Congress and other Federal agencies)
  - Electric utilities/the Customer
  - Financial Community
- Networking Events
  - Organizing Annual Conference and Exhibition
  - Various Workshops throughout the year
- Providing Information and Education through
  - Publications
  - Web site [www.awea.org](http://www.awea.org)
- Developing Technical Standards (Proposed “Grid Code”)

# AWEA MEMBER BENEFITS

- Committees and Working Groups
  - Legislative
  - Transmission
  - Education
- Education Resources and Networking Events
  - WINDPOWER 2008 – Annual Conference & Exhibition
  - Workshops: finance, transmission, siting, etc.
- Member Services
  - Members only site
  - Careers in Wind Job Board
  - Online Store
  - Wind Projects Database
  - News Room: Media Outreach, Wind Energy Weekly, WindLetter

# Wind Power Market Overview

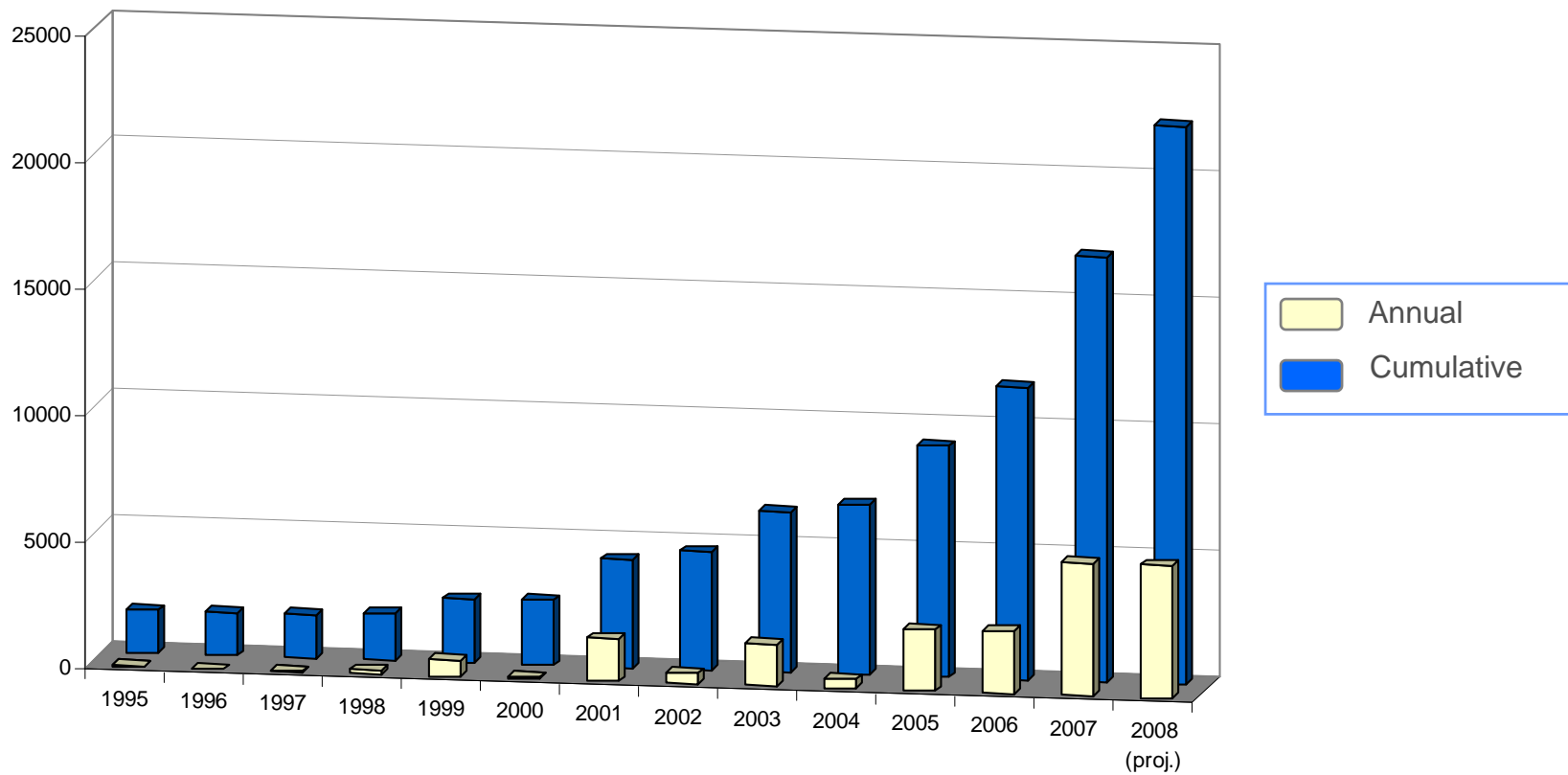
# Wind Growing Worldwide



Source: GWEC Global Market Report

As of December 31, 2007

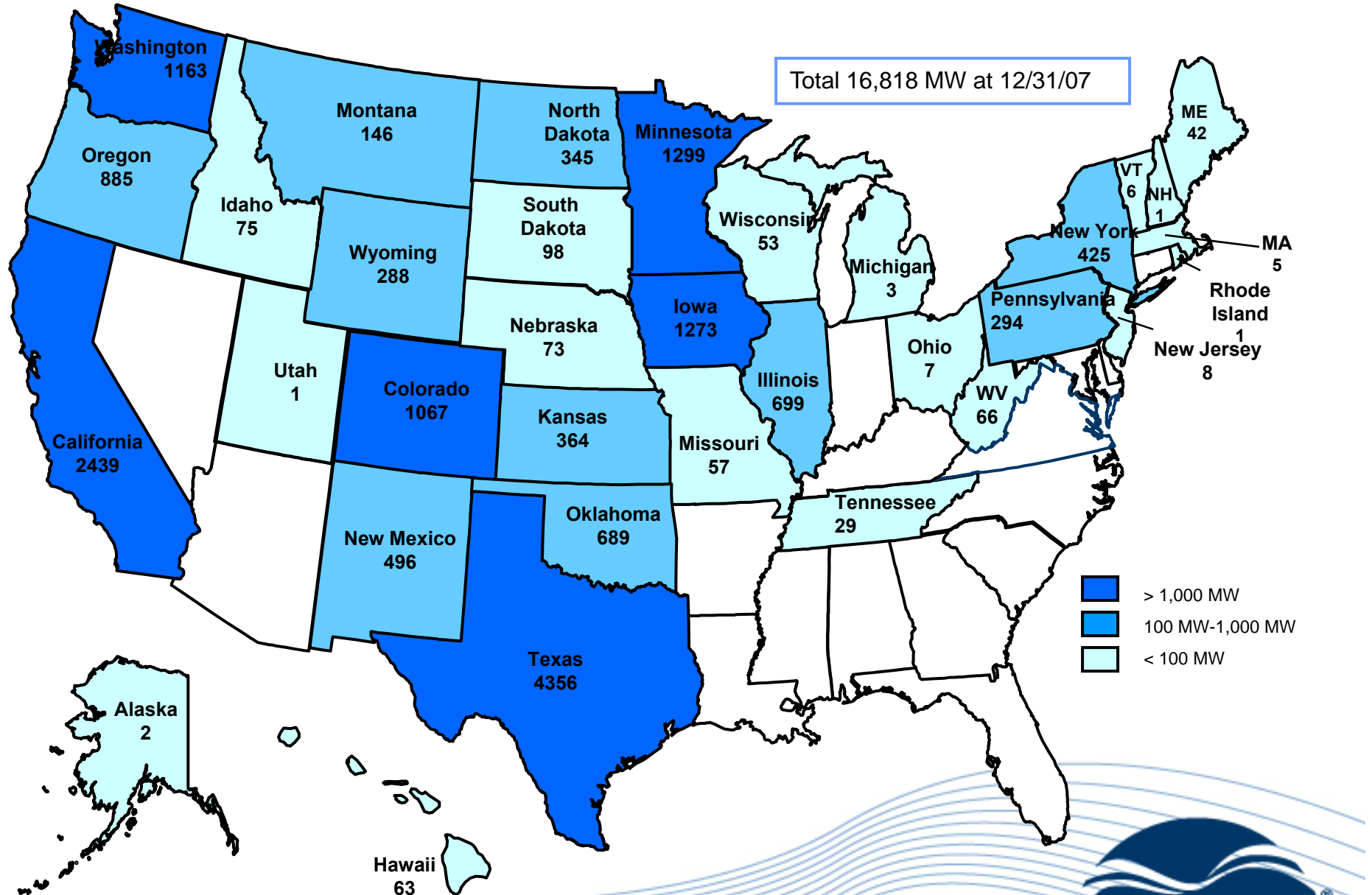
# Wind Power Taking Off in U.S.



Source: AWEA Market Report

As of December 31, 2007

# Installed Utility-Scale Wind Power as of December 31, 2007



# Driving Forces Behind Wind's Growth

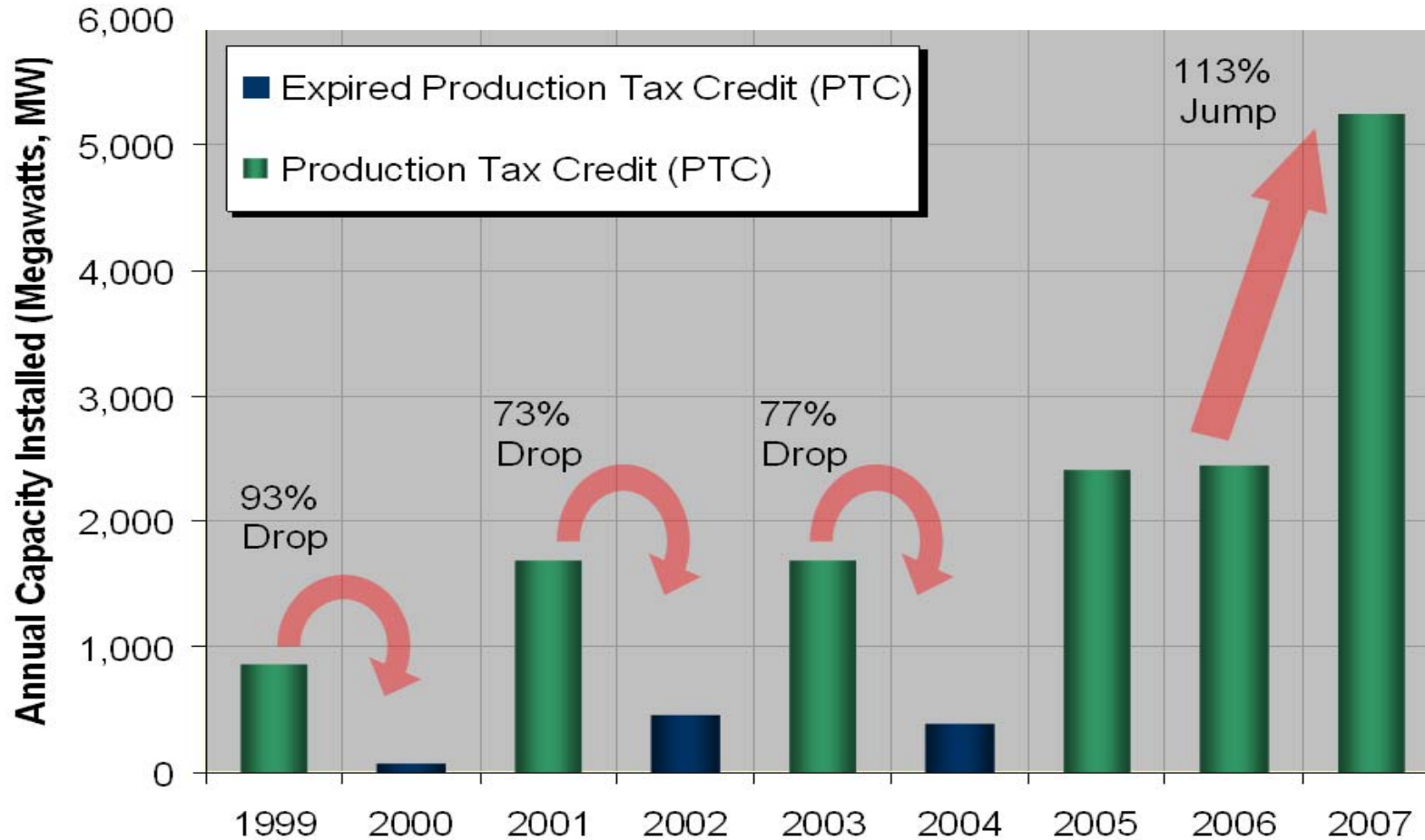
- Wind's steadily improving economics
  - Federal production tax credit
  - Bigger turbines
  - More productive turbines
- Benefits to utilities from wind in mix
  - No fuel cost
  - No environmental costs/degradation
  - Popular with customers
- Fossil fuel prices increasing/volatile
- Federal and state policy initiatives

# Federal and State Policies to Promote Wind Power

# Federal Production Tax Credit (PTC)

- Eligibility period now extended through end of 2008. Provides 2¢ per kWh for 10 years of operation to wind plant owners
- Lowers price of electricity to customers
- Industry needs long-term extension to encourage investment

# Historic Impact of PTC Expiration on Annual Installation of Wind Capacity



# Renewable Portfolio Standard (RPS)

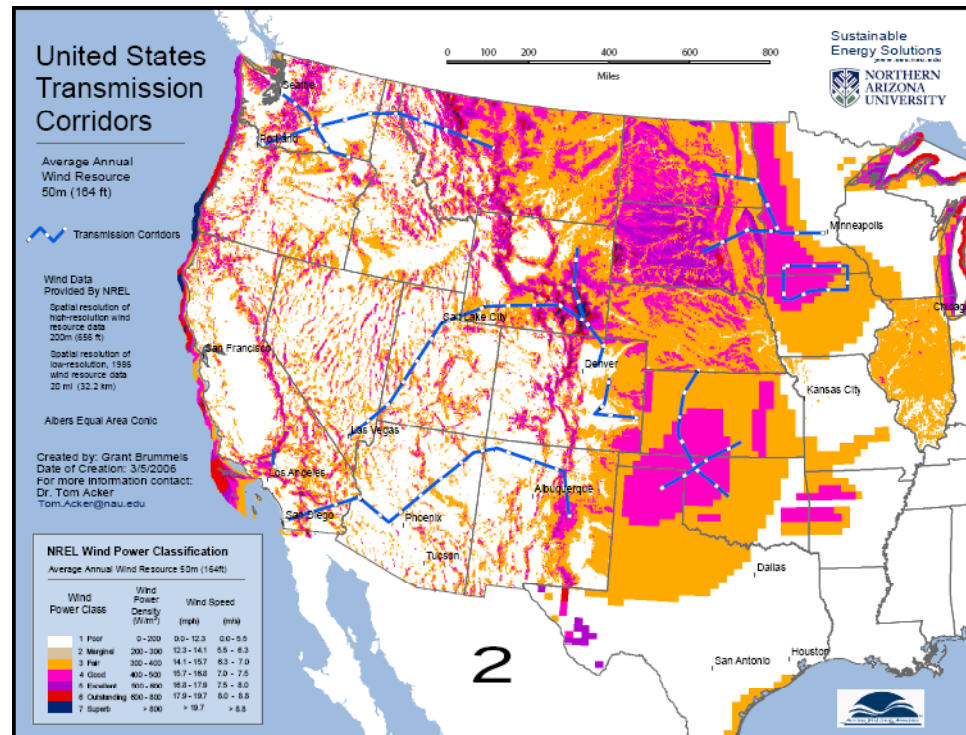
- Requirement that utilities supply a portion of their electricity from renewable resources by a certain date
- Would create stable market for wind, which would drive down cost of energy
- Texas good example of how RPS can drive development
- Creates incentive to solve implementation issues
- 26 states and D.C. have RPS policies

# Transmission Grid Operating Rules

- Nondiscriminatory interconnection of new generation facilities
- Real-time balancing markets instead of schedule deviation penalties
- Elimination of rate “pancaking” and allocation of transmission facilities’ costs to end-use customers rather than generators
- Equitable allocation of congested capacity among competing users

# Clean Energy Superhighways

New transmission lines built to take advantage of the nation's wind resources could access tens of thousands of megawatts of new wind capacity



# Climate Policy

- AWEA is involved in clean air and global warming policy to make sure that wind power projects are recognized for their zero-emissions energy generation and allocated emission allowances
- Wind energy can be included by allocating allowances based on generation output, which creates an incentive for efficient and clean energy sources
- Wind power is readily available to deliver zero-emissions electricity on a large scale

# Green Power Market

- Green Pricing
  - No competition, utility offers customers choice of supporting wind power construction
- Green Marketing
  - In competitive market, customers empowered to choose service providers that contract to purchase renewables
- Green Tags
  - Environmental attributes purchased separately from electricity

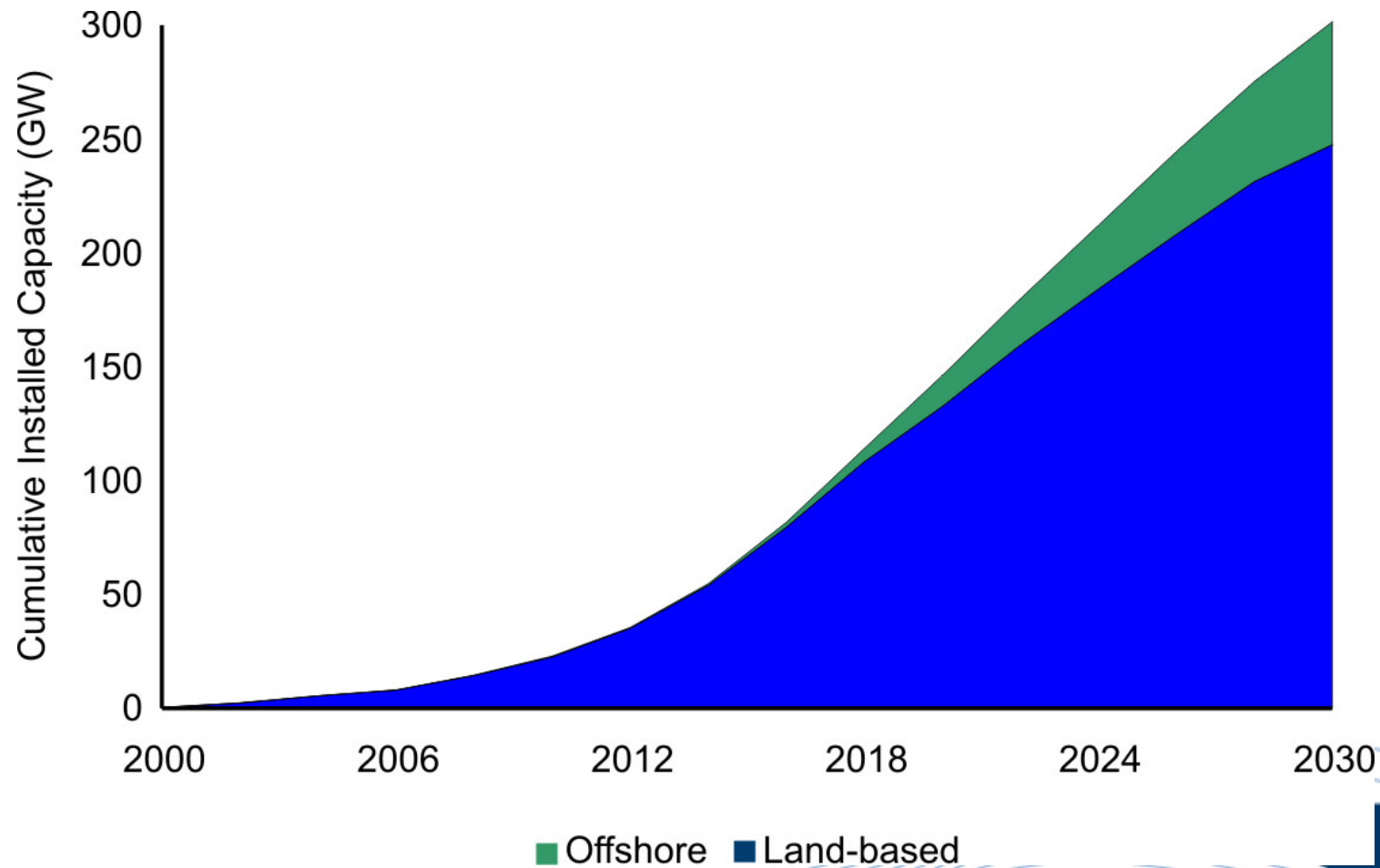
# Small Turbine Incentives

- Investment tax credit
- Buy-down programs
- Sales tax exemptions
- Model zoning ordinances
- Reasonable interconnection standards
- Net metering



# Future of Wind Energy in U.S.

# 20% Vision: Cumulative Capacity Installed



Preliminary from forthcoming report  
The American Wind Energy Association [www.awea.org](http://www.awea.org)



# 20% Vision: Market Growth Potential

	Onshore	Offshore
Total MW	239,500	53,900
Total Number of Turbines	79,130	17,975

# 20% Vision: Policy & Market Challenges

- Establishing Stable Policy
- Addressing Value Chain Challenges
- Building Transmission
- Addressing Challenges associated with Wind's Variability
- Meeting Siting Challenges
- Improve Wind's Ability to Compete on Cost