



# 20% Wind Energy by 2030: Changing America's Electricity Supply

[www.20percentwind.org](http://www.20percentwind.org)

20% Wind Energy  
by 2030

A photograph of a white wind turbine against a bright blue sky with light clouds. The turbine is the central focus, with its three blades extending outwards.

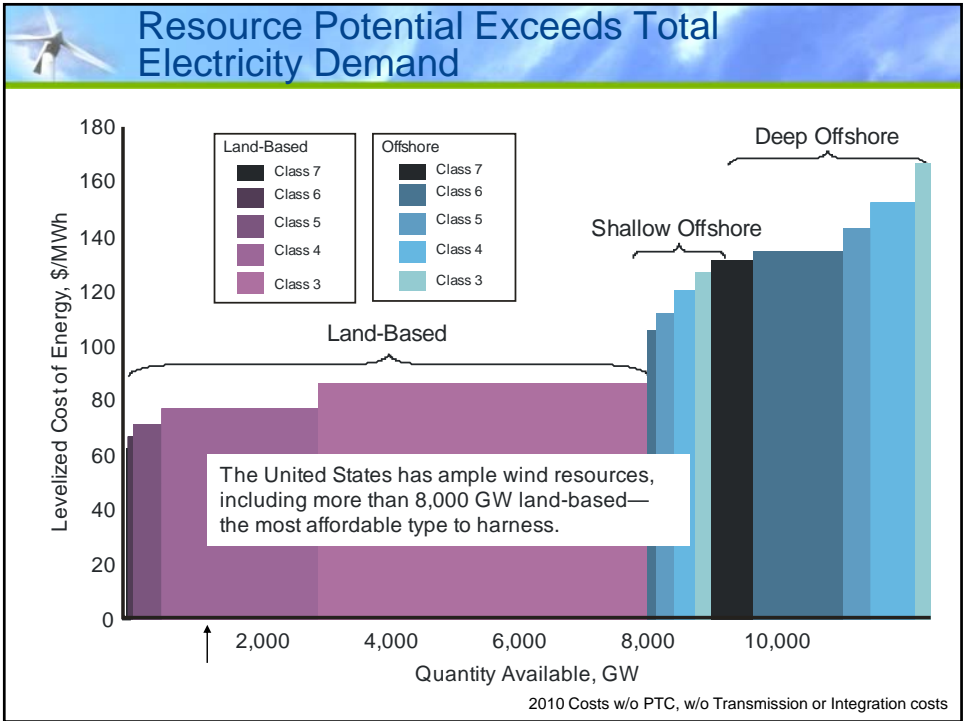
## 20% Wind Energy by 2030

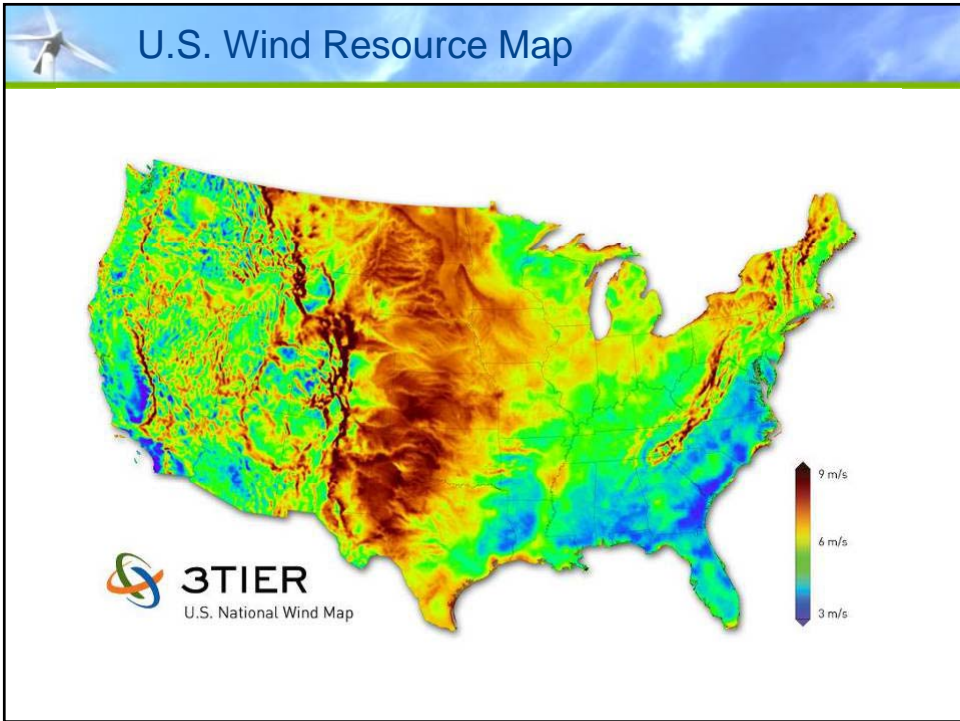
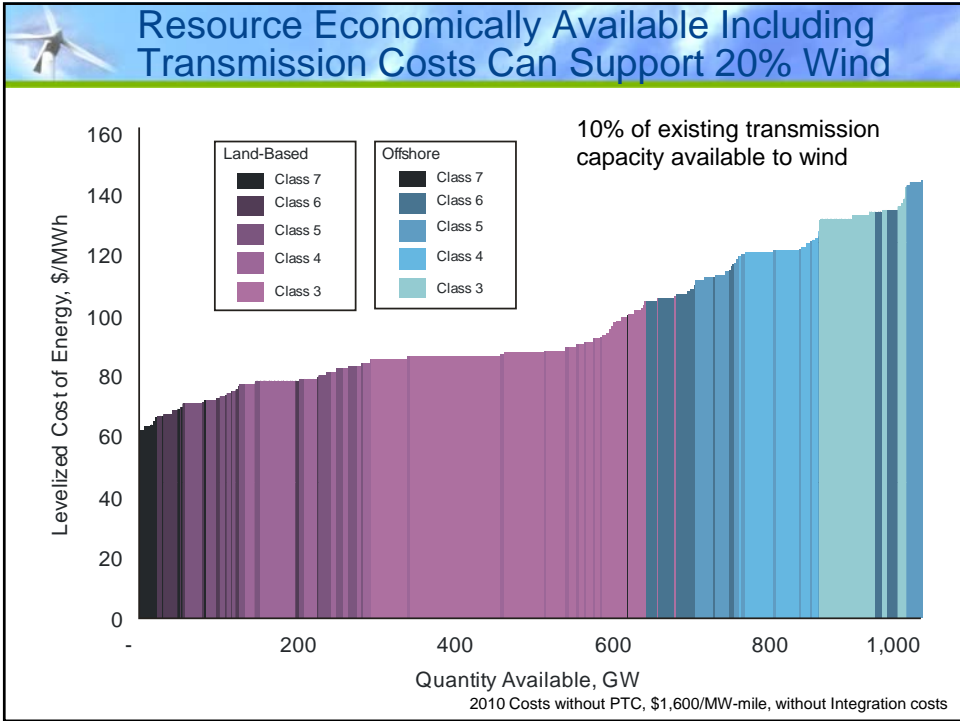
### Overview of Key Findings

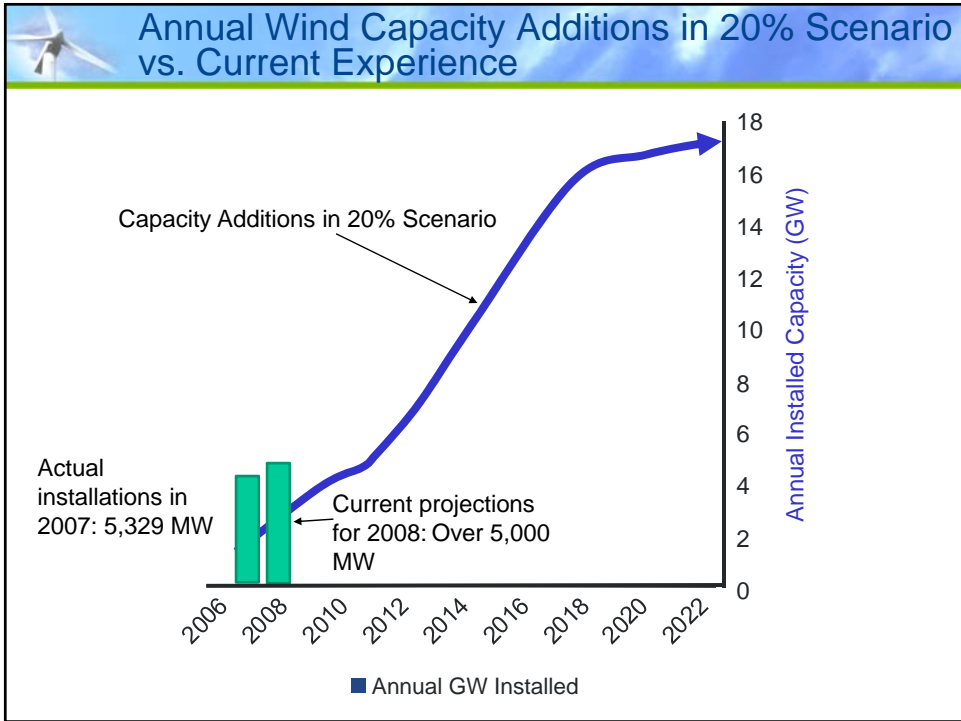
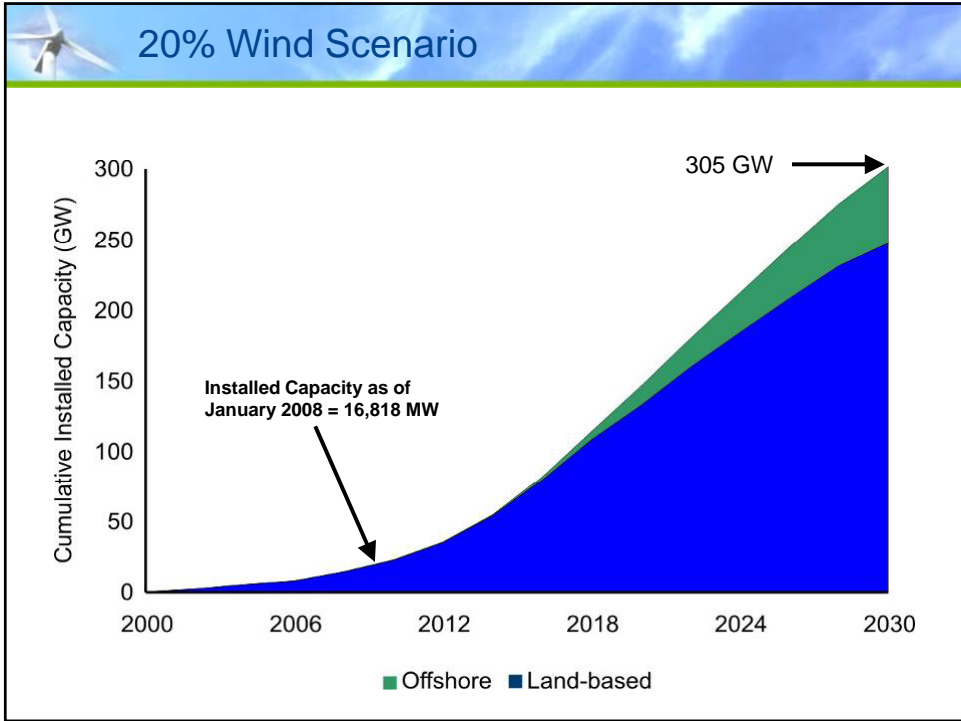
Jim Walker  
President, Board of Directors  
American Wind Energy Association  
Vice Chairman, enXco Inc.

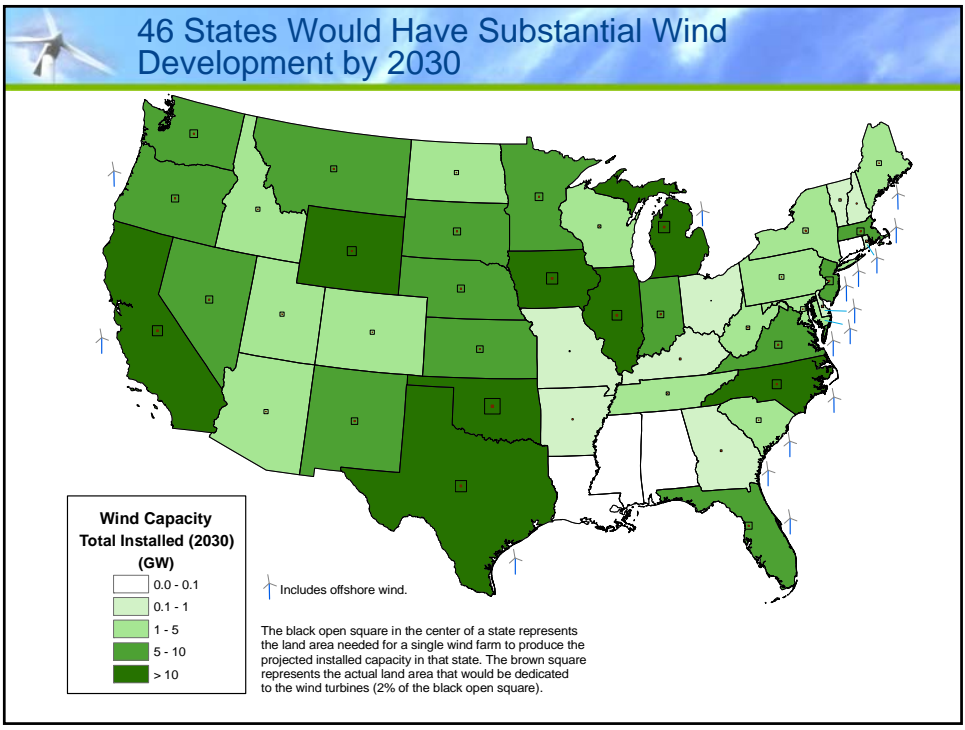
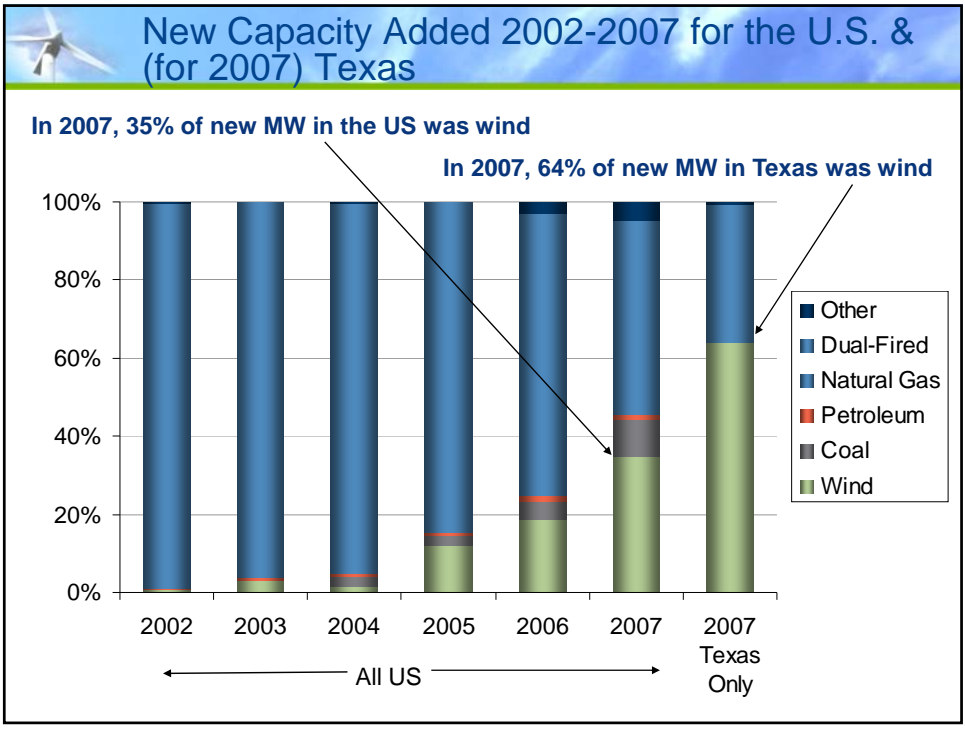
## 20% Wind Scenario

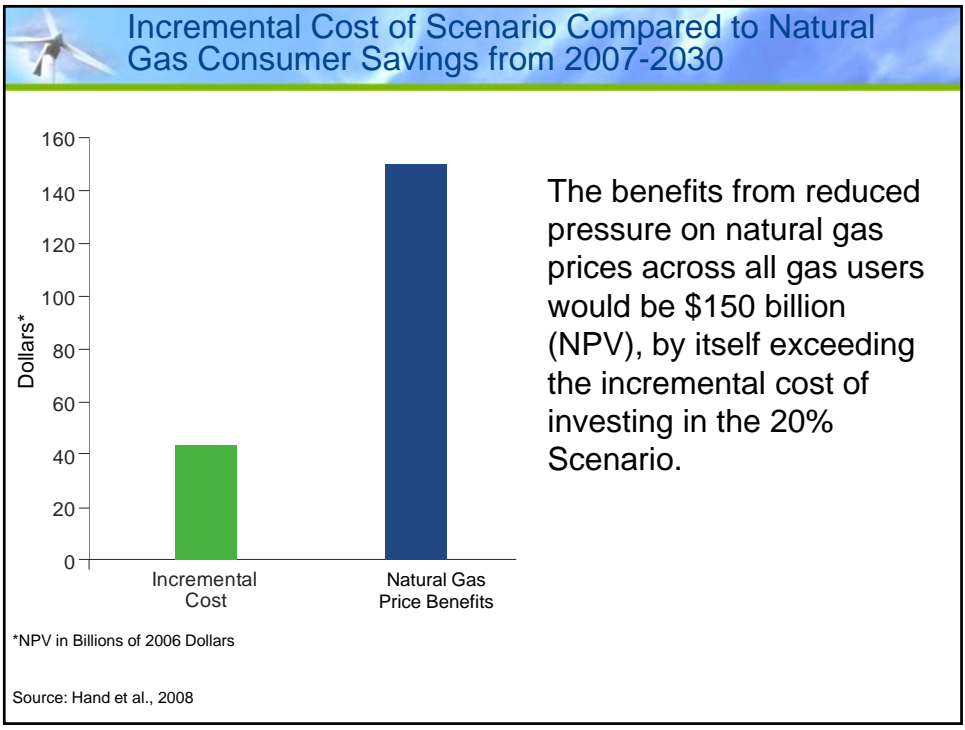
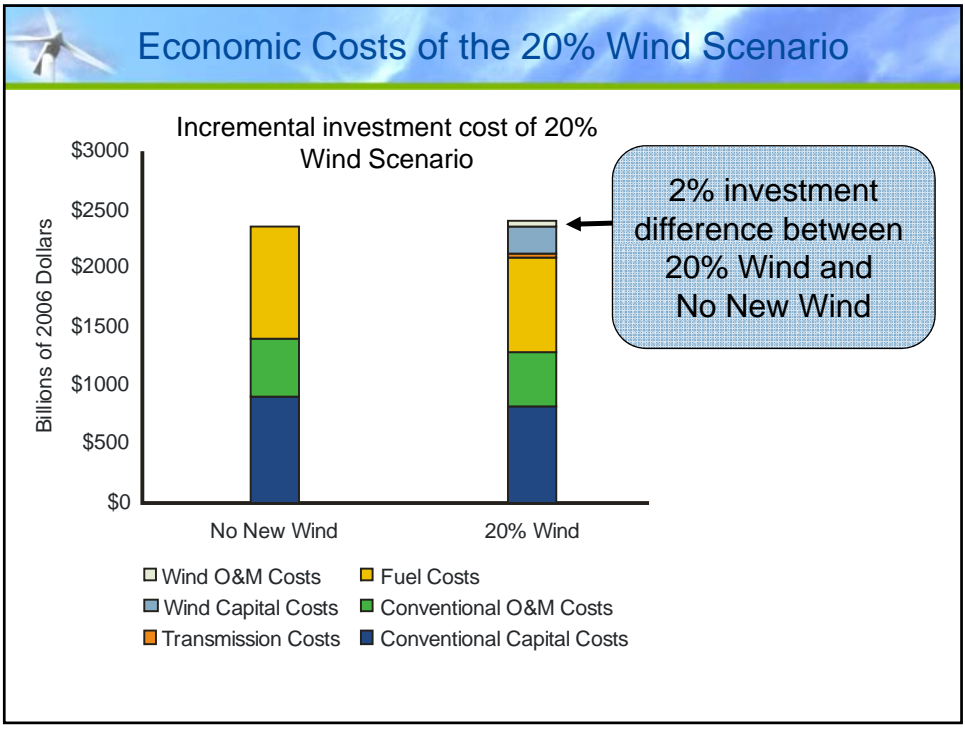
- Explores one scenario for reaching 20% wind electricity by 2030 and contrasts it to a scenario in which no new U.S. wind power capacity is installed
- Is not a prediction, but an analysis based on one scenario
- Analyzes wind's potential contributions to energy security, economic prosperity and environmental sustainability
- Would require about 300 GW (300,000 MW) of wind generation- an increase of about 290 GW in wind installations between 2007 to 2030
- Shows that affordable, accessible wind resources are available across the nation

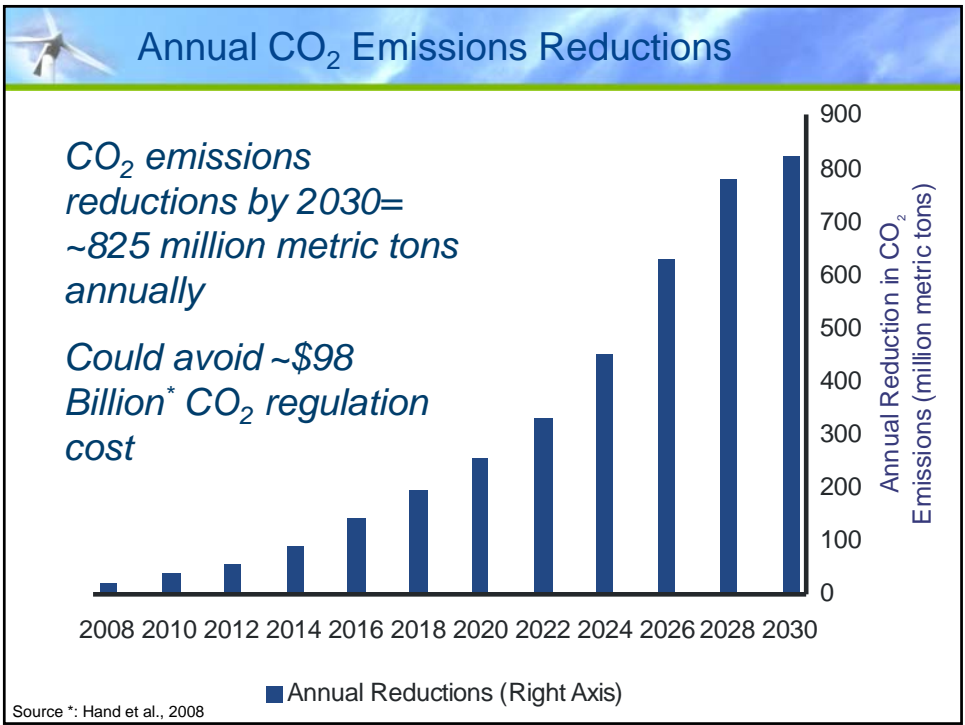
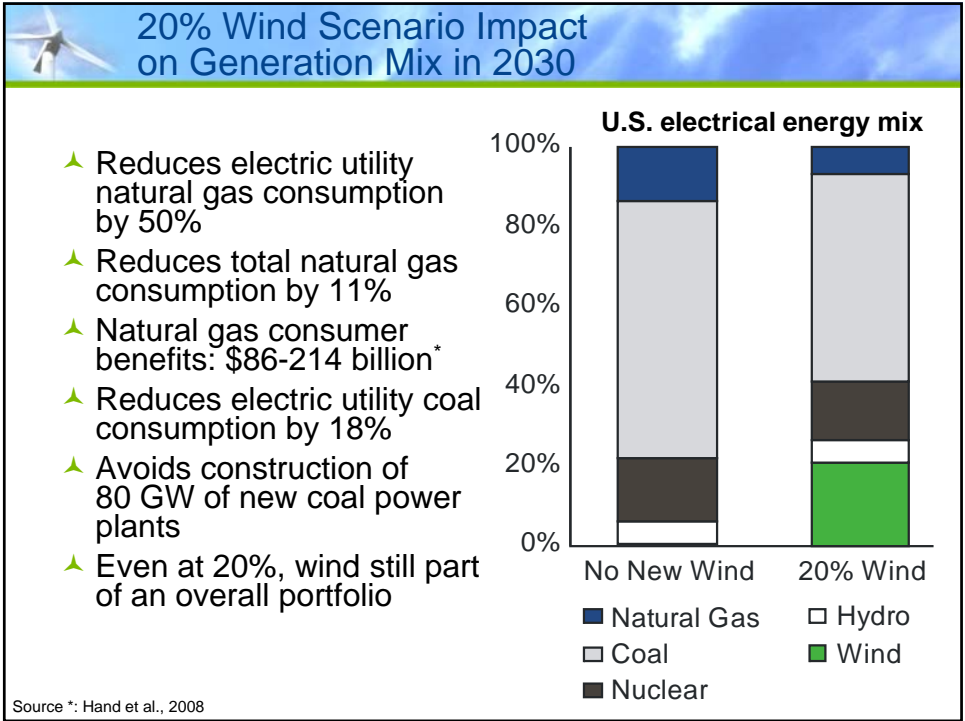


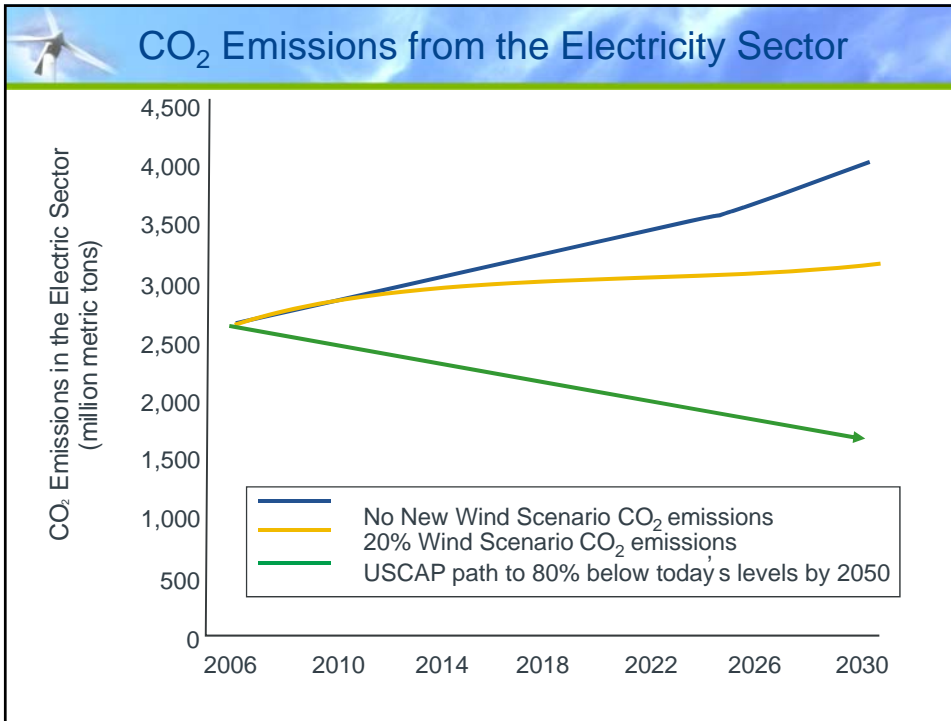












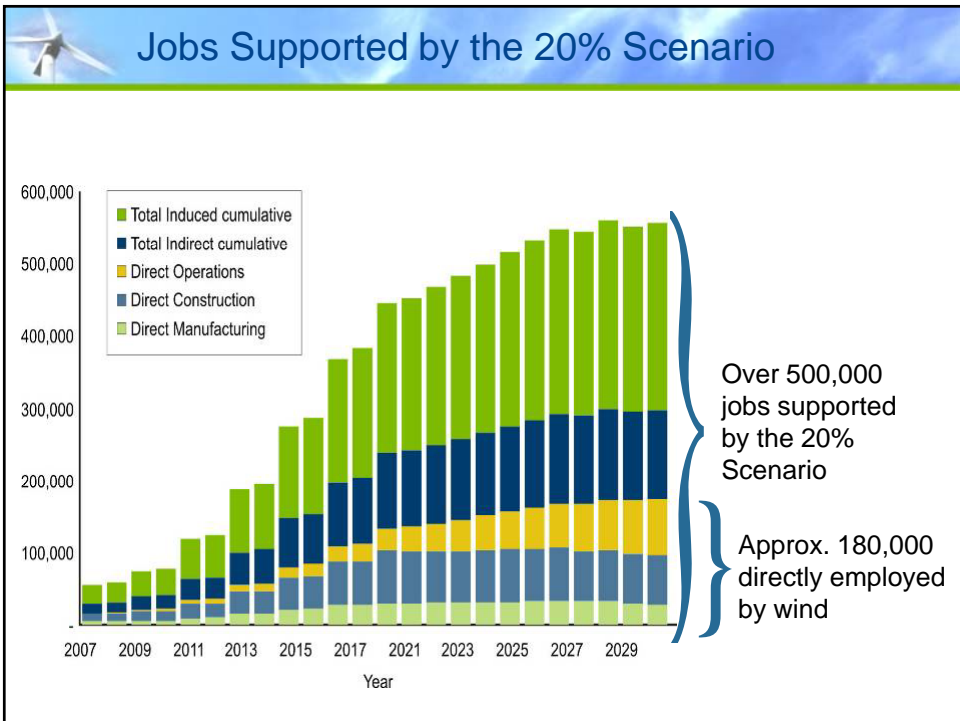
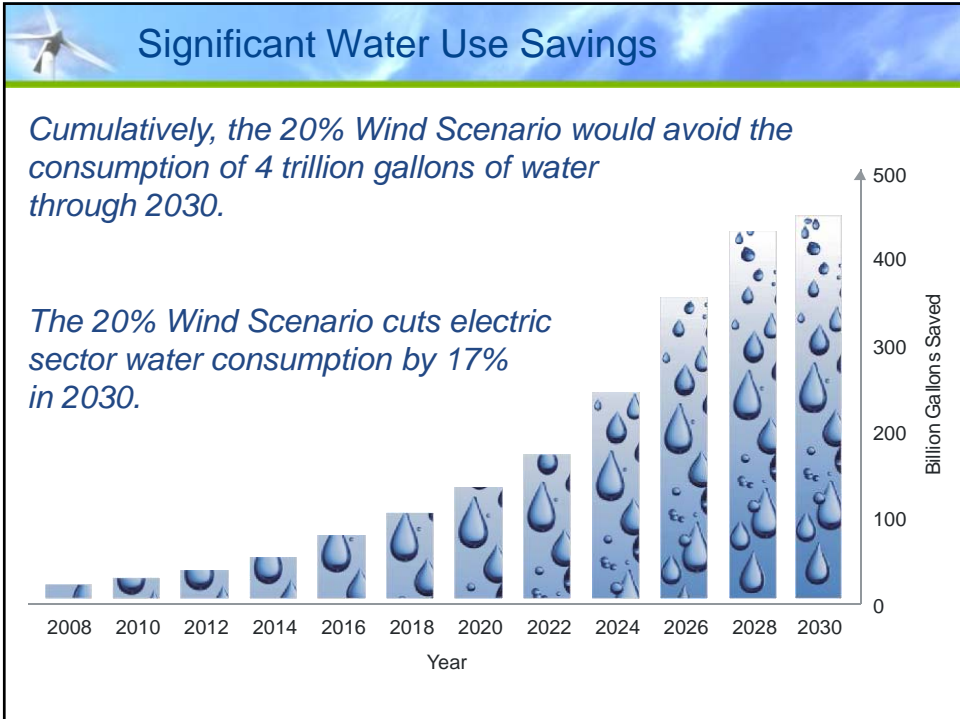
**Wind Could Lead the Fight Against Climate Change**

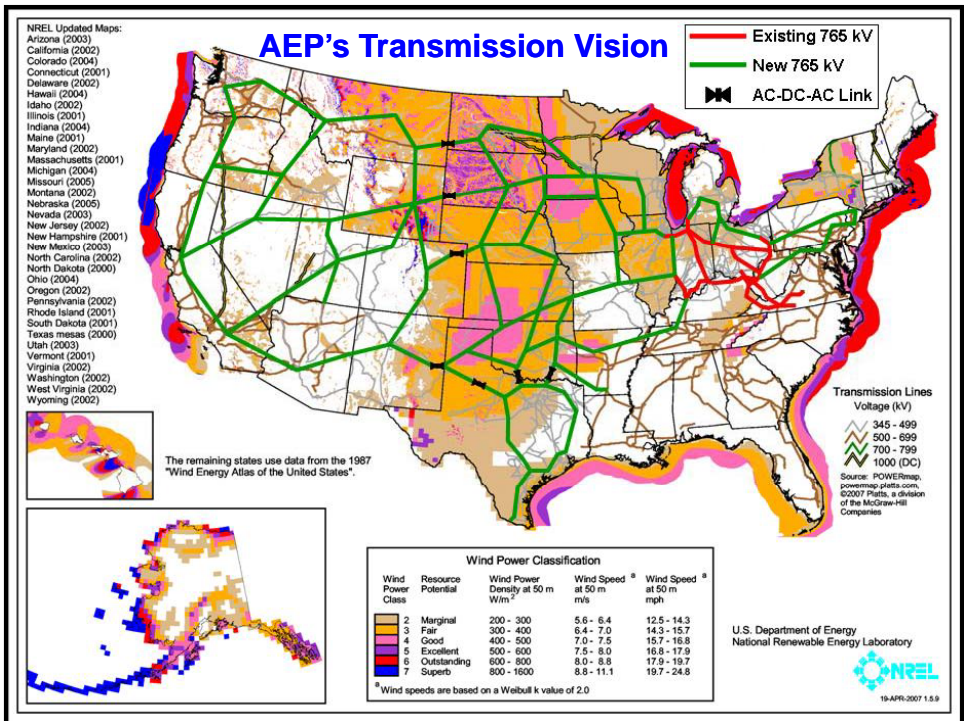
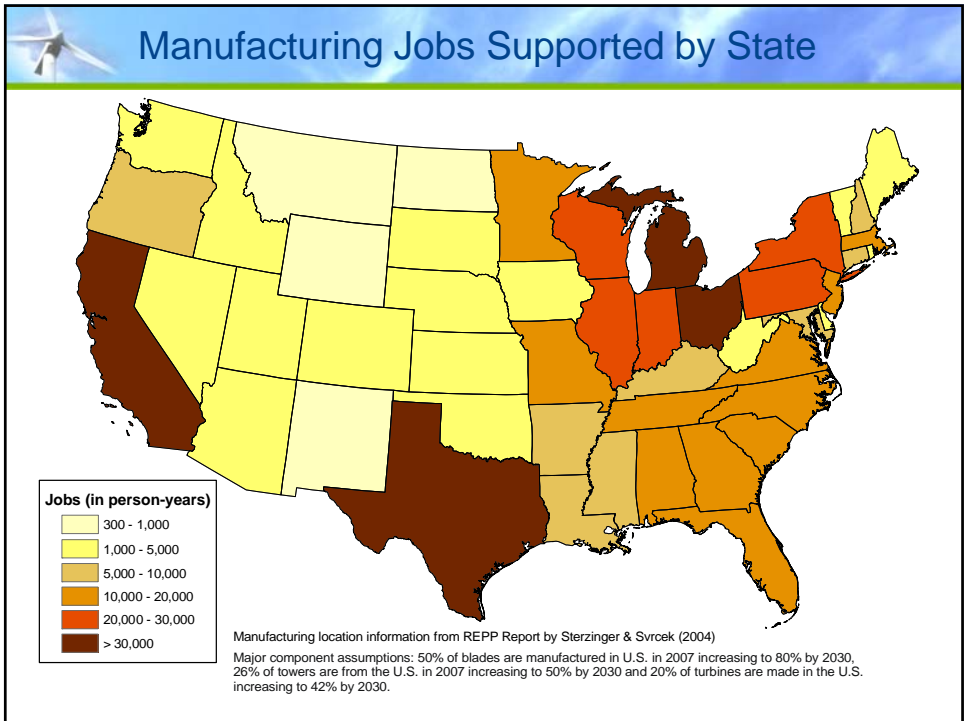
2006 CO <sub>2</sub> Sources	Million Metric Tons/Year	Share of Total
Power Generation	2,328	41.3%
Transportation	1,856	32.9%
Industry	862	15.3%
Residential	327	5.8%
Commercial	210	3.7%
Other	55	1.0%
<b>Total</b>	<b>5,638</b>	<b>100.0%</b>


Source: US EPA Inventory of US GHG Emissions & Sinks 1990-2006

▲ 20% Wind in 2030 is equivalent to:

- Taking 140 million of today's cars off the road, or
- Offsetting 96% of the CO<sub>2</sub> emissions of the entire 2007 US Industrial Sector








### Summary: **Costs** & Benefits

Incremental direct cost to society	<b>\$43 billion</b> 50 cents/month avg. hh
Reductions in emissions of greenhouse gasses and other atmospheric pollutants	825 million tons of CO <sub>2</sub> annually \$50 to \$145 billion
Reductions in water consumption	8% total electric 17% in 2030
Jobs created and other economic benefits	500,000 total with 150,000 direct jobs \$2 billion in local annual revenues
Natural gas use reductions and present value consumer benefits	11% \$86-214 billion

Sources: DOE, 2008 and Hand et al., 2008

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- ### 20% Wind by 2030 – Key Findings
- ▲ 20% US wind by 2030 is feasible
  - ▲ Substantial net benefits would be realized, and would be spread across all 50 States
  - ▲ Consistent, long term Federal policies are needed to realize the full potential of wind