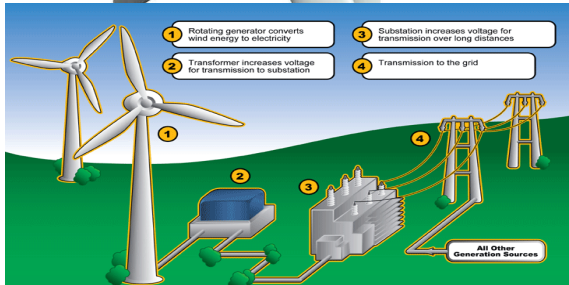
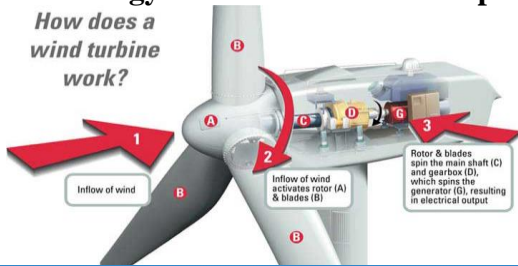


# Wind Electricity Fact Sheet

## Wind Energy Production & Consumption

How does a wind turbine work?



## Wind Energy Generation & Transmission

Figure 14  
U.S. Wind Power Capacity Installations, by State

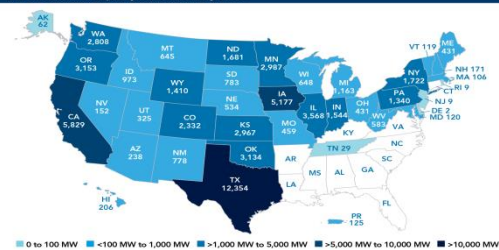
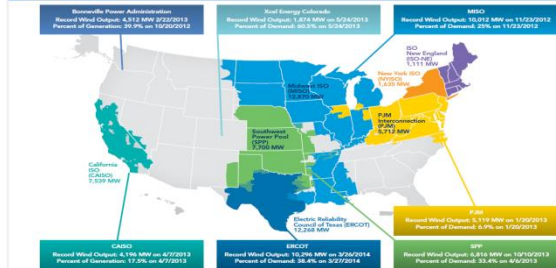
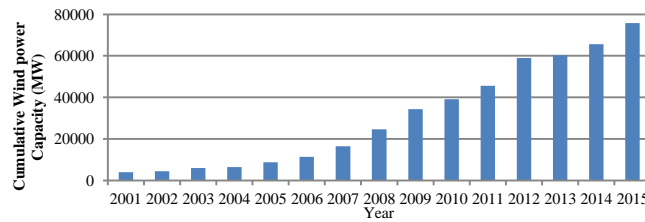


Figure 15  
Wind Energy Records, by Region

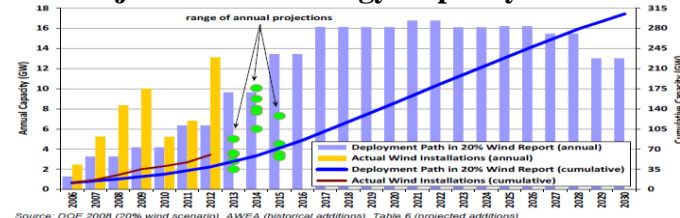


- During 2013 four transmission projects were completed providing capacity to carry 10,000 MW of new wind capacity.
- Near-term transmission projects in advanced development, spanning the Plains states, Upper Midwest, and the West, will carry an estimated 60,000 MW of additional wind power capacity.

## Wind Energy Capacity in the U.S.



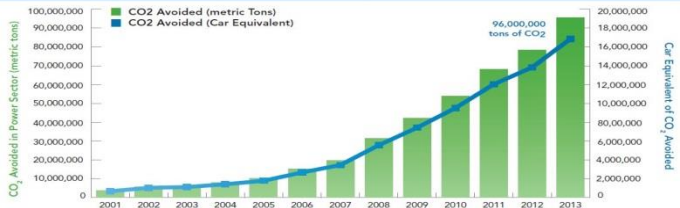
## Projected Wind Energy Capacity to 2030



Source: DOE 2008 (20% wind scenario), AWEA (historical additions), Table 6 (projected additions)  
Figure 39. Wind Power Capacity Growth: 20% Wind Report, Actual Installations, Projected Growth

## Wind Energy & the Environment

Wind Energy Impact on Avoiding Carbon Dioxide Emissions



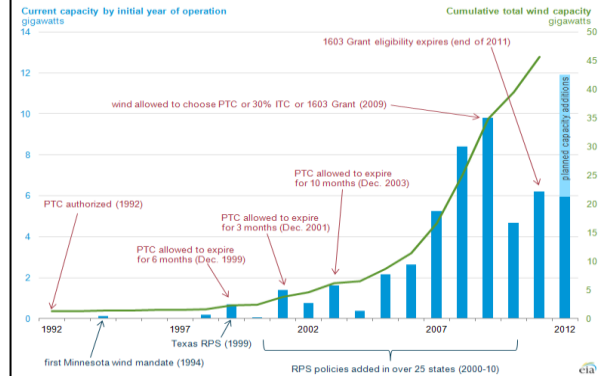
In 2013, fossil fuel-powered plants reduced water consumption by 36.5 billion gallons of water as a result of wind energy generation - the equivalent of roughly 116 gallons per person in the U.S.

## Wind Energy Noise Levels

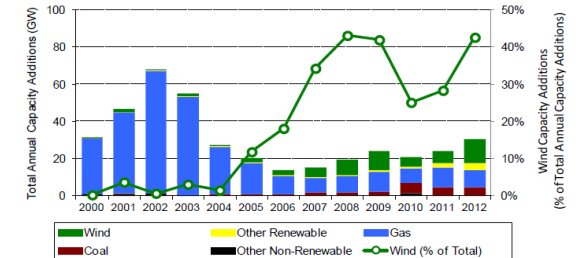


The noise level from one wind turbine 300 meters away, the closest it can be to a house, is about 45 dB. Comparisons to household devices are made in the figure above.

## Wind Energy Policy & Economics



- Production Tax Credit subsidizes new wind generation by 2.2 cents per kilowatt-hour
- 1603 Grant was an equivalent-value cash grant for wind plant construction. It expired in the lull at the end of 2011 but wind power was able to rebound
- Local benefits include property tax payments, payments in lieu of taxes, and increased local spending plus its associated tax revenue.
- Local benefits are often used toward community development such as schools, libraries, and hospitals.



Source: EIA, Ventix, AWEA, Interstate Renewable Energy Council, Solar Energy Industries Association/GTM Research, Berkeley Lab

Figure 2. Relative Contribution of Generation Types in Annual Capacity Additions

- In 2012, for the first time, wind power was the largest source of new generation capacity added to the U.S. electrical grid in terms of gross capacity additions.
- Wind power delivered 31% of all new generative capacity installed over the past five years.
- If wind power additions continued over the next decade at the same pace as in 2012, then roughly 95% of the nation's projected increase in electricity generation would be met with wind electricity



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Stephen Schappert  
Lafayette College- EGRS 352

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Chart created by Stephen Schappert

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