

Testimony of Rob Gramlich, Interim CEO, American Wind Energy Association

**House Committee on Energy and Commerce
Subcommittee on Energy and Power**

**Hearing on American Energy Security and Innovation: The Role of a Diverse Electricity
Generation Portfolio**

March 5, 2013

Thank you Chairman Whitfield, Ranking Member Rush, and Subcommittee Members. It is a pleasure to appear before you today to speak on behalf of the American Wind Energy Association (AWEA).

AWEA is the national trade association of America's wind industry, with over 1,200 member companies, including project developers, manufacturers, and component and service suppliers.

Diversity plays a crucial role in the electric industry as the primary solution to the problem of risk. Risk is a hallmark of the electric industry, as utilities make multi-decade investment decisions under great uncertainty. Electric utilities must commit to power supply options with over thirty-year lifetimes without knowing future fuel prices, future environmental regulations, future fuel supplies, cooling water availability, and more. These risks must be managed, and the best way for utilities to do that, as with one's financial investment portfolio, is to diversify.

When electric utilities today seek to diversify, wind power is a natural choice. Wind power tends to be the next least cost source of new electric generation capacity behind natural gasⁱ. It serves as a natural hedge, or insurance policy, since its fuel price risk is zero.

Wind energy production has grown dramatically in the last decade. Today wind projects in 39 states and Puerto Rico offer enough energy to power nearly 15 million American homes. At least 66 utilities bought or owned new wind power installed in 2012, up by 50% from a year ago. Last year alone, \$25 billion in private investment went into building new U.S. wind projects. Wind projects in the U.S. have brought economic growth to rural communities; roughly \$400 million in property taxes or similar payments to communities; and annual lease payments to farmers and ranchers of around \$120,000 per turbine over its lifetime. Already, Iowa and South Dakota produce enough wind energy to meet more than 20 percent of their electricity needs, and wind energy produces more than 10 percent of the electricity in 9 states.

Grid reliability benefits greatly from fuel diversity. Just like the Mississippi River takes water from many states and tributaries and keeps a steady flow into the Gulf of Mexico, the grid takes power from many sources to meet total demand. The grid can provide reliable energy as long as enough power is available from the diverse generation sources across the wide geographic areas of our power grids. Wind power has been an important part of that diverse portfolio, providing energy at many geographic points around the grid, helping grid operators meet demand. Grid operators that operate efficiently have found they can reliably add large amounts of wind energy with virtually zero need for additional reserve capacity. They have always maintained such reserves to handle fluctuating demand for electricity, and variations in how much conventional power plants can generate.

Diversity promotes reliability because there is operational risk for all resources on the system, whether it is from a mechanical failure or natural causes. In many cases, what affects other resources does not affect wind energy. Wind turbines continued to operate after

Hurricane Sandy,ⁱⁱ the Japanese tsunami,ⁱⁱⁱ and the freak cold snap in Texas in February 2011.

During the Texas cold snap, some 50 conventional power plants abruptly shut down due to the cold weather, contributing to rolling blackouts. But wind turbines continued to produce as expected and provided approximately 7 percent of ERCOT's electricity demand at the time^{iv}.

Water savings from wind energy are another important benefit for utilities and policymakers, especially with large parts of the country still facing a persistent drought.

Fuel diversity requires continued attention and support from Congress, utilities, and state regulatory commissions. Without that attention, there would be a tendency to rely on a single resource and effectively put all of the nation's electric resource "eggs in one basket." At the federal level, the primary means of supporting fuel diversity has been tax credits. Tax credits played a major role in bringing down the cost of shale gas, and they are rapidly bringing down the cost of both wind and solar energy. The U.S. wind energy industry is now getting back to work building turbines and projects after the recent extension of the production and investment tax credits. The primary challenge is that renewable tax incentive support has been sporadic and unpredictable. With more policy certainty, like that enjoyed by other energy sources, the wind energy industry could invest in the remaining cost and performance improvements needed to finish the job of becoming fully cost-competitive.

Diversity through wind power development has held rates down for homes and businesses across the country. Wind energy costs have fallen by one-third in the last four years, and the technology continues to improve. Even in parts of the country not considered to be great places for wind, it can be a cost-effective option^v. Over the long term, wind energy's

zero fuel cost protects consumers from fluctuations in the price of other fuels, much like a fixed-rate mortgage works to protect consumers from variable interest rates.

Wind power is an important component of a diverse domestic energy portfolio that promotes economic growth, energy security, and a clean environment.

Again, thank you for the opportunity to be here today. I look forward to answering your questions.

ⁱ Lazard, *Levelized Cost of Energy Analysis, Version 6.0*, July 2012, <http://bit.ly/WxYH72>

ⁱⁱ <http://www.onearth.org/blog/wind-farms-withstand-sandys-wrath>

ⁱⁱⁱ http://www.huffingtonpost.com/kelly-rigg/battleproof-wind-farms-su_b_837172.html

^{iv} ERCOT CEO Tripp Doggett said at the time, “We put out a special word of thanks to the wind community because they did contribute significantly through this timeframe. Wind was blowing, and we had often 3,500 megawatts of wind generation during that morning peak, which certainly helped us in this situation.” <http://www.texastribune.org/2011/02/04/an-interview-with-the-ceo-of-the-texas-grid/>

^v Alabama Power, a subsidiary of the Southern Company, decided to purchase wind power from Kansas in 2012. John Kelley, Director of Forecasting and Resource Planning, said, “These agreements are good for our customers for one very basic reason, and that is, they save our customers money.” http://www.youtube.com/watch?v=6q6Q0_C1SX0