

# The Facts about Wind Energy Development in Maine

**When asked if they think wind generated electricity is good, affordable, green, useful, and necessary most people will say "Yes, of course." But the fact is, none of the above has ever been proven. Wind generated electricity has been effectively shielded from scrutiny by marketing and lobbying, with no obligation to verify its claims. But wind generated electricity has high impact and low benefit to Maine's economy and environment. Following are 20 reasons to take a closer look.**

**1. Wind generated electricity will not "get us off of oil."** Less than 2 % of the electricity in Maine and in the U.S. comes from oil-fired generators. We use oil for transportation and heating. Switching to electric vehicles and electric heat would increase electricity consumption radically, and consumers could not bear the cost of this very expensive form of electricity: wind.

**2. Maine has 4300 megawatts of electricity generation capacity, though we only use 1500 megawatts on average.** There is no shortage of electricity and the grid forecasts less than one percent annual growth in demand for the next decade. No urgent need exists to sacrifice unique resources using taxpayers' money to produce a small amount of surplus electricity.

**3. Even without wind turbines, Maine is already one of the cleanest states in the nation in electricity generation.** According to the National Renewable Energy Laboratory, Maine ranks first in non-hydro renewable electricity generation per capita, per gross state product and as a percentage of total electricity generation. We also have the highest renewable portfolio standard in the U.S.

**4. By necessity, conventional sources of electricity; nuclear, biomass, natural gas, hydropower, etc. will remain the primary suppliers of electricity to the New England grid well into the future.** Wind-generated electricity cannot, by its nature, replace or displace these "baseload" generators. Intermittency and low power density restrict it to a role as a marginal supplier of electricity.

**5. Maine's 2700 megawatt goal for land-based wind generating capacity will necessitate the construction of 1200-1700 wind turbines, each around 400-450 feet tall on over 300 miles of rural Maine's mountains and hills.** A SINGLE conventionally-fueled generator, supplying the same amount of electricity, could be constructed for 10-15% of the cost of wind development.

**6. The expansive conversion of rural Maine lands to wind development could still provide no more than 5% of New England's electricity needs under even the most optimistic of scenarios.** It would have no meaningful impact on New England's fossil fuel consumption. The intermittency of Maine's 2700 megawatt (MW) wind power goal gives it, at most, an effective output that is around 30% of its listed capacity, or about 800 MW. On New England's 32,000 MW grid, this is a drop in the bucket – especially, when considering the hundreds of miles of turbines needed to achieve this.

**7. Wind generated electricity is high impact and low benefit.** Siting turbines on Maine's mountaintops is likely to have adverse economic impacts. No distinct or meaningful long term benefits to Maine have ever been demonstrated.

**8. Placing wind turbines on Maine's mountains will not enhance our energy security.** Virtually all of the fuels used to produce electricity in New England are sourced from North America. ALL are readily available in North America.

**9. Placing wind turbines on Maine's mountains will not reduce coal consumption or stop mountaintop removal mining.** Coal is used in other parts of the country as a reliable (albeit dirty) baseload fuel, with some states deriving 75% of their electricity from coal. Maine has only one small coal-fired generator, powering a Rumford paper mill, accounting for about ½ percent of all of Maine's electricity generation. Comparatively speaking, New England is a minor user of coal.

**10. Placing wind turbines on Maine's mountains will not improve Maine's air quality.** EPA figures indicate that the burning of fossil fuels in Maine is a minor source of the state's particulate pollution. Most fossil fuel pollutants blow into Maine from population centers many miles away.

**11. If CO<sub>2</sub> is the problem, wind power is not the solution.** Placing wind turbines on Maine's mountains will have no impact on climate change. Using the wind industry's optimistic claims, 2700 MW of installed wind capacity in Maine could only reduce total U.S. CO<sub>2</sub> emissions by less than five one-hundredths of one percent (0.05%). Globally, there would be no measurable impact.

**12. Wind turbines require sources of NEW conventional generating capacity.** The 2010 New England Wind Integration Study stated that *"Wind's intermittent nature would require increased reserves, ensuring that there are other generation options when the wind isn't blowing."*

**13. New wind power integration will require an unprecedented expansion of transmission capacity.** The president and chief executive of ISO-New England, said in 2010 that large scale integration of wind power into the New England grid *"would require spending \$19 billion to \$25 billion for new transmission lines."* This cost would show up on our electric bills.

**14. Wind generated electricity will not guarantee lower electricity rates.** Wind industry officials often state that they cannot compete with low natural gas prices, which are forecast to remain low and stable for years to come. The wind industry's insistence on a federal Renewable Energy Standard is, by itself, proof that wind-generated electricity cannot compete with other sources.

**15. It is said that wind should be a "part of the mix"; but its part would be insignificant.** Demand for wind generated electricity is created, not by the market, but by government policy. Without favoritism from government policies, the wind industry could not survive. No end to the wind industry's dependence on federal taxpayers and favorable policy is in sight.

**16. Wind projects are heavily subsidized by taxpayers at an exorbitant rate.** Through various federal programs, wind generated electricity is subsidized, according to the U.S. Energy Information Administration, at a rate of \$23.37 per megawatt hour (MWh). Compare this to natural gas and coal, which receive 25 cents/MWh and 44 cents/MWh, respectively.

**17. Wind developments create notoriously few permanent jobs.** Despite boasts of creating Maine jobs, wind projects produce mostly temporary construction jobs lasting less than 6 months. Wind projects are NOT long-term investments in jobs. Construction jobs are always welcome, but publicly-funded construction jobs should produce necessary and useful projects, like roads, bridges, and critical infrastructure. Also, state mandates to purchase higher priced wind-generated electricity could lead to lost jobs or fewer available jobs in Maine.

**18. Most of a wind project's expenditures occur outside of Maine – primarily, overseas.** Also, property valuations of most new wind developments in Maine are sheltered by tax increment financing (TIF) deals. Under the terms of these deals, Mainer's property tax savings are diverted to developers to help finance wind projects.

**19. EVERY operating, multi-turbine, wind facility in Maine, that has been sited around people, now has significant unresolved disputes over noise and shadow flicker.** Continuing to site wind turbines using the same standards that have caused conflict assures that the problems will grow in number and that more Mainer's will be involved in disputes with wind developers in the future.

**20. The 2006 Brookings Institute report warned Maine to avoid sprawl in order to protect its "quality of place" and its "brand."** Maine's wind development policy actually encourages rural sprawl, threatening Maine's distinctively unique character and future prosperity.

***Please, feel free to check these facts yourself.***

***Explanations and references for each numbered item above can be found at:***

***[http://highlandmts.org/?page\\_id=794](http://highlandmts.org/?page_id=794)***

***Friends of the Highland Mountains 3/2011-2***