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Presenting the facts about industrial wind power

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Conservation Is More Effective Than Wind Energy

Pointing to the very small contribution of wind, National Wind Watch calls for conservation instead of industrialization of rural and wild landscapes

ROWE, MASS., JULY 30, 2007 — The International Energy Agency (IEA) projects that if the world's nations pursue carbon-reducing plans they are currently considering, then in 2030 there could be 18 times more electricity generated from the wind than there was in 2004.[1]

But because of continuing growth in demand, that would still represent less than five percent of the world's electricity production.[2]

In the U.S., the Energy Information Administration (EIA) of the U.S. Department of Energy projects that wind's share of electricity production will be less than *one* percent in 2030.[3]

National Wind Watch (NWW), a coalition of groups and individuals providing information about industrial wind energy development, says that conservation could easily make up wind's small potential contribution.

"It is obvious — even in the IEA's very hopeful scenario — that wind will never be an important part of electricity production," says NWW president Eric Rosenbloom, author of "A Problem With Wind Power".[4] "Wind does not now nor will it ever replace other sources to any significant degree," Rosenbloom says. He adds, "That is not to endorse any other source as problem free, it is simply facing the fact that wind is not a viable alternative."

Since wind's potential contribution is so small, modest conservation would avoid the adverse impacts of wind energy development, according to National Wind Watch.

Industrial-scale wind turbines are now typically well over 400 feet tall to the tip of their blades. They weigh anywhere from 150 to 350 tons. The blades sweep a vertical air space of 1.5 to 2 acres with tip speeds between 150 and 200 mph.[5] Each turbine requires acres of clearance and is secured in a buried platform of tons of steel-reinforced concrete.

Wind energy companies are targeting vulnerable rural communities and landscapes for their construction. Developers are building roads and wind power plants in wilderness areas, particularly on prominent ridge lines.

In May, the U.S. Congress was told about the increasing threat to birds and bats from unregulated wind energy development in migratory pathways and the degradation and fragmentation of habitat.[6] The results of a 5-month study of the new giant turbines on New York's Tug Hill plateau suggest that the annual toll for the complete facility is more than 16,000 birds and bats.[7]

Reports of health problems caused by noise from the machines are increasing. A team in Portugal investigating heart, lung, and nerve damage from industrial low-frequency noise has found that the conditions for causing "vibroacoustic disease" exist inside houses near large wind tur-

bines.[8] Canadian News has reported families forced to leave their homes because of headaches, dizziness, irritability, and sheer lack of sleep.[9] A couple in England has publicized their experience of intrusive noise from turbines near their farm.[10] An English physician has interviewed residents around wind energy facilities and found serious noise problems to be commonplace.[11] In Maine, neighbors of the Mars Hill facility were shocked by the noise as soon as the first turbine was turned on.[12] Most of these people were initially supportive of the projects and believed the developers' assurances that they would not experience any problems.

"This is not green energy but a destructive boondoggle. It is even more intolerable that we as taxpayers are paying for it — in so many ways", says NWW member Sue Sliwinski of New York.

Since the IEA shows that large-scale wind energy will not change anything for the better, and increasing evidence shows how much damage it does, National Wind Watch says that conserving even a small amount of electricity every year is obviously a better choice.

A little conservation can replace the perceived need to build giant wind turbines that do so much more harm than good.

Notes

1. "Renewables in global energy supply", International Energy Agency, January 2007. Available at: http://www.iea.org/Textbase/publications/free_new_Desc.asp?PUBS_ID=1596.

2. "Renewables in global energy supply", IEA. In 2004, according to the IEA, wind generated 0.47% of the world's electricity, namely, 82 terawatt-hours (TWh, or 1 million megawatt-hours) out of 17,450 TWh ("Key world energy statistics", 2006). They project that wind generation will grow about 18-fold by 2030, to 1,440 TWh. The total electricity production in 2030 is calculated from their statements about renewables as a whole, which they project growing from 18% of all electricity production in 2004 to 25% in 2030, an absolute increase from 3,179 TWh to 7,775 TWh. Thus, the total electricity in 2030 is about 31,100 TWh, of which wind's projected 1,440 TWh is 4.6%.Note that this is actual output, not installed capacity, which in 2004 grew from 39,341 to 47,317 MW, according to the American Wind Energy Association (AWEA), for an average installed capacity of 42,329 MW. The output of 82 TWh represents an average production rate of 82,000,000 MWh ÷ 8,760 hours in the year = 9,361 MW, i.e., only 22% of the average installed capacity.

3. "Annual energy outlook 2007", Energy Information Administration, May 2007. Available at: http://www.eia.doe.gov/oiaf/aeo/index.html. The EIA projects that wind's share of electricity production will increase from 0.36% in 2005 to 0.89% in 2030, primarily because of limits to windy land area ("Assumptions to the annual energy outlook 2007", May 2007). The 2005 production was 21% of the average installed capacity (from 6,725 MW at the beginning of 2005 to 9,149 MW at the end, according to the AWEA, an average installed capacity of 7,937 MW).

4. Available at: http://www.aweo.org/ProblemWithWind.html.

5. See http://www.aweo.org/windmodels.html.

6. "Gone with the wind: impacts of wind turbines on birds and bats", Subcommittee on Fisheries, Wildlife and Oceans, Committee on Natural Resources, Oversight Hearing, May 1, 2007. http://resourcescommittee.house.gov/hearings/hearingdetail.aspx?NewsID=61. Testimony also available at: http://www.wind-watch.org/documents/gone-with-the-wind-impacts-of-wind-turbines-on-birds-and-bats/.

7. "Annual report for the Maple Ridge Wind Power Project postconstruction bird and bat fatality study — 2006", Curry and Kerlinger, LLC, May 31, 2007. Available at: http://www.wind-watch.org/documents/maple-ridge-wind-power-project-postconstruction-bird-and-bat-fatality-study-2006/.

8. "Public health and noise exposure", Mariana Alves-Pereira and Nuno Castelo Branco, Inter-noise 2007, August 28-31, Istanbul, Turkey. Available at: http://www.wind-watch.org/documents/public-health-and-noise-exposure/. Also see http://www.ninapierpont.com/?s=wind for information about "wind turbine syndrome". And see "Noise complaints on rise with new industrial wind power projects", National Wind Watch, April 2, 2007, available at: http://www.wind-watch.org/press-070402.php.

9. See, for example, “Island family abandons home because of wind farm”, Amherst (Nova Scotia) Daily News, July 17, 2007 (available at: http://www.wind-watch.org/news/2007/07/13/island-family-abandons-home-because-of-wind-farm/), and “Trying to escape the wind”, Canadian Broadcasting Corporation, February 27, 2006 (available at: http://www.wind-watch.org/documents/cbc-series-on-nova-scotia-family-who-fled-wind-turbine-noise/).

10. See, for example, http://www.wind-watch.org/documents/statement-from-jane-davis-of-deeping-st-nicholas/.

11. “Wind turbines, noise and health”, Amanda Harry. Available at: http://www.wind-watch.org/documents/wind-turbines-noise-and-health/.

12. See, for example, “Testimony of Wendy Todd to Maine legislature, April 30, 2007”. Available at: http://www.wind-watch.org/documents/testimony-of-wendy-todd-to-the-maine-legislature-april-30-2007/.

National Wind Watch is a nonprofit corporation established by campaigners from around the U.S. in 2005 to promote knowledge and raise awareness of the negative environmental and social impacts of industrial wind energy development. Contacts, information, analysis, and other materials are available on its web site: www.wind-watch.org.