Energy Justice Network

The Grassroots Alternative to the Bush/Cheney Energy "Plan"

The Bush/Cheney energy "plan" calls for 1300 to 1900 new power plants in the next 20 years to feed a projected 45% increase in electricity demand. 90% of these new power plants are projected to be gas-fired, with the remainder including new "clean coal" plants and new nuclear reactors. Pennsylvania has already been targeted for 40-50 of these power plants. The consequences of this plan include ripping up the Great Lakes and our national forests for oil and gas drilling and 38,000 miles of new pipelines.

Rather than further pillage our environment for more dirty power, we can start today with policies which promote **conservation, efficiency and CLEAN renewables** (like wind and solar) to replace our dirty and wasteful power system.

These solutions have the potential to fill all of our electricity needs, without needing nuclear power, fossil fuels, biomass / incineration, or even large hydro dams. The technology already exists. The money to do this exists (yet it's being directed towards bailouts for the nuclear industry, investment in gas-fired power plants and other bad ideas). What's missing is the political will to enact the solutions. What's missing is having politicians who aren't bought by the dirty power industries so that we can direct the public and private investment dollars towards the clean energy solutions, not a continued reliance on dirty power.

The following documentation on the potential for conservation, efficiency, and clean renewables to meet our energy needs can be found with links to web references at **www.energyjustice.net/solutions/**

Conservation and Efficiency have a large potential to reduce our electricity needs. Government, industry and independent analyses have shown that cost-effective energy efficiency improvements **could reduce electricity use by 27% to 75% of total national use within 10-20 years -- without impacting quality of life or manufacturing output.** This has already been documented by the U.S. Congress, Office of Technology Assessment (1993, claiming 33% by 2015)[1]; the Electric Power Research Institute (1990, claiming 27-44% by 2000)[2]; and the Rocky Mountain Institute (1990, claiming 75% by 2010)[3]. Cutting our energy use by 50% would make us as energy efficient at Japan and Europe already are.

Solar power, if it were only affordable, has the power to fill the entire country's energy needs - using existing rooftops and other already paved surfaces. The main thing keeping solar from revolutionizing our energy system is its cost. A KPMG report, commissioned by Greenpeace in 1999, shows that for about $660 million (the cost of only 2 of the 1300-1900 new power plants proposed under the Bush/Cheney Energy "Plan"), a large-scale solar panel factory can be built which would bring the cost of solar power down by 4-5 times so that solar is competitive with existing conventional energy sources.[4]

Wind power, according to the U.S. Department of Energy, can provide more power than the entire nation's electricity needs.[5] The plains states (northern Texas up to the Dakotas) have been called the Saudi Arabia of wind. Wind is already cost-competitive with natural gas in some parts of the country.

In the past 20 years, wind technology has come a long way. The cost has dropped dramatically and continues to drop as conventional power sources become more expensive. Modern wind turbines can produce more and more power (currently, the large ones can produce 1.5 megawatts each and 2-3 megawatt types are currently under testing and development).

North and South Dakota alone have enough wind energy from its highest wind speed sites to supply over half of the electricity needs of the lower 48 states. A group of 12 states in the midsection of the country have enough wind energy potential to produce nearly four times the amount of electricity consumed by the nation in 1990.

The American Wind Energy Association estimates that Pennsylvania has enough wind resources - just using a fraction of the best wind speed sites in the state - to provide 30% of PA's current energy needs.[6]

Footnotes:

[1] U.S. Congress, Office of Technology Assessment, "Energy Efficiency: Challenges and Opportunities for Electric Utilities," September 1993, OTA-E-561, NTIS order #PB94-107547. http://www.wws.princeton.edu/~ota/disk1/1993/9323_n.html

[2] Barakat & Chamberlin, Inc., "Efficient Electricity Use: Estimates of Maximum Energy Savings" EPRI CU-6746 (PaloAlto, CA: The Electric Power Research Institute, March 1990).

[3] See the estimates from Rocky Mountain Institute cited in Arnold P. Fickett, Clark W. Gellings, and Amory B. Lovins, "Efficient Use of Electricity," Scientific American, September 1990, pp. 65-74. Also, "The Negawatt Revolution," Keynote Address by Amory Lovins at the Green Energy Conference, Montreal 1989, http://ccnr.org/amory.html . The chart showing the 75% savings can be found here: http://www.ccnr.org/Lovins_figure_4.html

[4] Greenpeace USA, "Breaking the Solar Impasse: United States Case Study," http://www.greenpeaceusa.org/media/publications/impasse.htm . The KPMG report and other documentation can be found here: http://www.greenpeaceusa.org/climate/energy.htm

[5] An Assessment of the Available Windy Land Area and Wind Energy Potential in the Contiguous United States, Pacific Northwest Laboratory, 1991. http://www.nrel.gov/wind/potential.html

[6] American Wind Energy Association, "Wind Power in Pennsylvania," http://www.awea.org/pennsylvania/

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