

NO To Coal at Big Stone, YES to clean renewables



Problem

Otter Tail Power Company, in conjunction with several other power companies, is proposing a major new source of air and water pollution for South Dakota and Minnesota. Otter Tail plans to more than double the output of the existing coal-burning power plant at Big Stone by building a new \$1.6 billion plant on the same site – Big Stone II. Coal pollution is a threat to our health and environment. Investing in a costly new coal-burning power plant wastes money and takes South Dakota away from safe, clean renewable energy from wind.

Toxic Coal Pollution

Coal-burning power plants are a significant source of air pollution. Coal-burning power plants emitted 3,762 thousand tons of carbon dioxide, 16 thousand tons of nitrogen oxides and 13 thousand tons of sulfur oxides in South Dakota in 2002.¹ These pollutants are linked to serious health problems that lead to thousands of unnecessary deaths each year – more than from drunk driving or homicide.² These health impacts often leave vulnerable populations -- like children and the elderly-- hardest hit. Expanding coal power at Big Stone would increase pollution.

Big Stone II, like other coal plants, is a serious global warming problem. Big Stone II would generate 4.7 million tons of carbon dioxide annually — the equivalent of 700,000 more cars. According to global warming expert Dr. Ezra D. Hausman, “My opinion is that the emissions of over 4.7 million tons of CO₂ per year from this proposed facility would cause material, adverse and irreversible damage to the environment.”³ Regulating Carbon Dioxide emissions from coal plants is a critical part of serious global warming efforts. These regulations – which are virtually inevitable -- will increase the costs of operation and ultimately raise prices. Expert testimony indicated that when greenhouse gas allowance forecast prices are considered annual costs of the Big Stone II Project increases by “\$37.6 million to \$147.6 million annually on a levelized basis.”⁴

Coal plants also emit significant amounts of mercury – a heavy metal and a potent neurotoxin. Mercury is released into the air and settles downwind of power plants where it contaminates lakes, rivers and the fish we eat. Exposure to mercury pollution may be especially harmful to women of child-bearing age, fetuses and children because it interferes with the development of the nervous system and can lead to delayed mental development, learning disabilities, and deficiencies in language, motor function, attention and memory.⁵

Mercury emissions will continue or increase for at least the first three years of operation. After that, the power companies say emissions will return to 2004 levels under a voluntary cap, which produces 189 lbs of mercury every year. Current levels of mercury pollution have caused the problems we see now – ubiquitous mercury pollution and fish contamination in Minnesota lakes and rivers. We need to reduce current levels, not permit coal plant expansion to continue at these already high emission rates.

Water Use and Scarcity

Big Stone II plans to use a lot of water— 3.2 billion gallons of water annually. They have plans to build a 450 acre private reservoir and fill it with water from the Big Stone Lake which feeds the Minnesota River. Diverting so much water could affect the river and Marsh and Lac qui Parle lakes. Owners plan to rely on “backup” groundwater when the lake levels get too low. Why approve such an environmentally damaging, water intensive project in an area with water scarcity problems?

The Solution to Coal Pollution: Clean Wind Power

Wind power can reduce pollution generated by fossil fuels like coal. Wind power generates electricity with no air emissions; no fuel to mine, transport or store; no cooling water; no water pollution; and no wastes.



South Dakota and Minnesota have incredible potential for renewable wind energy – improving our economy and environment.

The Midwest is blessed with such an abundance of windy terrain, especially in the Great Plains states of North and South Dakota, Iowa, Minnesota and Nebraska – so much so that it is sometimes referred to as the “Saudi Arabia of wind energy.” South Dakota ranks fourth in the U.S. in renewable energy potential, with a potential power output of 117,200 MW.⁶ That is the equivalent of 195 coal plants the size of the proposed Big Stone II.

South Dakota has just begun to tap its outstanding wind resources. As of January 2004, South Dakota had only 44.48 MW of installed and projected wind energy capacity, and no new wind projects planned.⁷ South Dakota should harness its abundant wind resources, rather than investing money in a new coal-burning power plant.

Benefits of switching from coal to wind include:

- reduced air and water pollution and toxic wastes,
- avoiding the risks of global warming and the costs of complying with future global warming laws,
- more power without more demands for water,
- improved electricity reliability, thanks to a diversified power portfolio,
- economic development and job growth through wind power “cash crops” for landowners and clean energy exports, increased business for wind turbine manufacturers and new skilled jobs in installation and maintenance of wind turbines.

Clean Water Action's Position

Before South Dakota builds another polluting coal plant, the public health and economic development benefits of renewable energy options must be considered. Since coal plants can operate for at least 40 years, every time a new one is built we commit to dirty energy for generations to come. For the future health and economic well-being of the region, we should use clean, innovative renewable energy options, not polluting coal technology.

¹ Energy Information Association, “State Electricity Profiles 2002,” www.eia.doe.gov/cneaff/electricity/st_profiles/south_dakota.pdf

² Abt Associates, “Death, Disease and Dirty Power: Mortality and Health Damage Due to Air Pollution from Power Plants,” Bethesda, MD, 2000.

³ (Joint Intervenor Exhibit 2., p. 32, ll. 23-26 to p. 33 ll. 1-5), In the Matter of the Application by Otter Tail Power Company and Others for Certification of Transmission Facilities in Western Minnesota And In the Matter of the Application to the Minnesota Public Utilities Commission for a Route Permit for the Big Stone Transmission Project in Western Minnesota, OAH No. 12-2500-17037-2, MPUC Dkt. No. CN-05-619 and OAH No. 12-2500-17038-2 MPUC Dkt. No. TR-05-1275, Exhibit 2, Direct Testimony of Ezra D. Hausman, Ph.D., Synapse Energy Economics, Inc., On Behalf of Joint Intervenor, November 17, 2006.

⁴ Ibid; OAH No. 12-2500-17037-2, MPUC Dkt. No. CN-05-619 and OAH No. 12-2500-17038-2 MPUC Dkt. No. TR-05-1275, Exhibit 1, Direct Testimony of David A. Schlissel and Anna Sommer Synapse Energy Economics, Inc. On Behalf of Joint Intervenor, November 17, 2006. <http://www.synapse-energy.com/Downloads/SynapseTestimony.2006-11.MCEA.Big-Stone-II-Minnesota.06-056-Schlissel%20Sommer.pdf>

⁵ Minnesota Department of Commerce, “2001 Energy Planning Report,” Appendix A: Dealing With Environmental Impacts of Electric Generation, 2001.

⁶ Union of Concerned Scientists, “Plugging in Renewable Energy,” 2003; www.ucsusa.org/documents/Plugging_In_Renewable_Energy.pdf

⁷ American Wind Energy Association, “Wind Project Database- South Dakota,” www.awea.org/projects/southdakota.html

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