

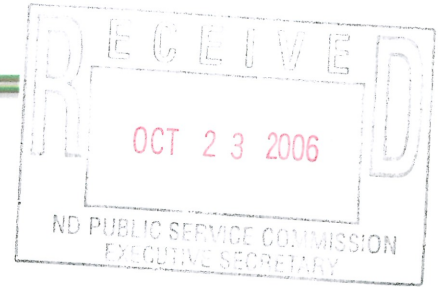


"Watchdogs of the Prairie"
Organizing North Dakotans Since 1978

Dakota Resource Council • PO Box 1095 • Dickinson, ND 58602
Phone: 1-701-483-2851 • Fax: 1-701-483-2854

Bismarck Office

103½ South 3rd St • Suite #8 • Bismarck, ND 58504
Phone: 701-224-8587 • Fax: 701-224-0198



Dakota Resource Council Testimony for ND PSC PURPA workshop
October 23, 2006

Net Metering – Section 1251:

Is this standard already sufficiently in place under the Commission's existing rules requiring net metering for qualifying facilities with less than 100 kW of generating capacity?

North Dakota already requires investor-owned utilities to offer net metering to their customers. RECs in North Dakota currently serve 35% of households in the state and are not required to offer net metering. The households that would most benefit from net metering are likely to be served by RECs. RECs have offered to pay members with small energy systems only the avoided cost of generation, which we feel is inadequate and unfair. Members with small energy systems are forced to negotiate with their coops for better prices for their electricity, some getting better rates than others. We think that there needs to be a mechanism in place that would require RECs to participate in net metering and to set a standard net metering tariff.

Fuel Sources – Section 1251:

What is each utility's current fuel source mix and how was it determined?

Clearly, we are heavily over-dependent on coal. One of the factors contributing to this imbalance is current state law, under which the state is forbidden to consider externalities in its rate-setting, (North Dakota Century Code (49-02-23)), and which we assume extends to resource plans submitted by utilities for, among other things, new coal-fired power plants.

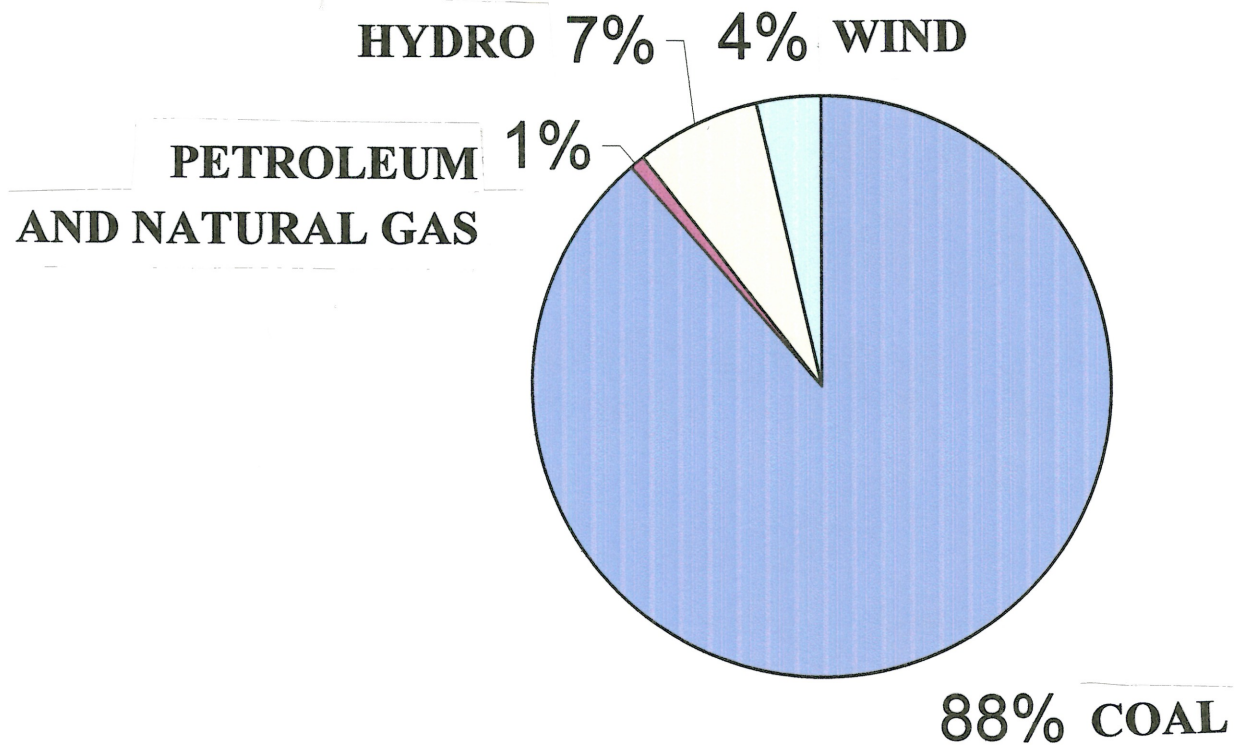
PURPA recommends balance in resources and incorporation of renewables, and the negation of externalities is in conflict with this intent. PURPA, the law of the land, says there should be more to energy policy than internal cost, but state law says otherwise.

Wind generation is the cheapest new form of electrical generation. Controlling emissions from coal plants is increasingly expensive. The proposed Big Stone II plant in South Dakota is expected to have a 60% cost overrun, and this is a conventional plant. Even with the overrun, these costs do not take into consideration the extreme likelihood that regulations for carbon dioxide will be in place during the life of this plant. These investors are hoping to slip in under the Co2 wire. Who will foot the bill?

North Dakota's excellent wind resource can provide needed balance in our resource plans because it is not vulnerable, as is coal, to ever-stricter emissions regulations and a federal carbon cap.

North Dakota Electric Energy Fuel Mix

US Dept Energy & ND Dept Energy



Rising Cost Risks in Fossil Fuels



Electricity

- Prices at the Powder River [source of most of Xcel's] coal have increased by well more than 100 percent, moving from \$6 per short ton in March 2003 to about \$15 per short ton in March 2006.
- High natural gas prices have shifted demand from gas to coal, while rising oil prices have driven up costs of mining and shipping coal.
- Transportation disruptions, derailments, have increased costs of coal deliveries.
- Milled uranium increased from \$10.15 per pound in 2001 to about \$14.36 per pound in 2005 -- up about 40%.
- Sulfur dioxide emission allowances have shot up from around \$200 per ton in 2003 to \$606 per ton in May 2006, down from \$1,600 per ton in late 2005. As allowances shrink, prices are likely to rise.

Rising Cost Risks in Fossil Fuels



Electricity

- Prices at the Powder River [source of most of Xcel's] coal have increased by well more than 100 percent, moving from \$6 per short ton in March 2003 to about \$15 per short ton in March 2006.
- High natural gas prices have shifted demand from gas to coal, while rising oil prices have driven up costs of mining and shipping coal.
- Transportation disruptions, derailments, have increased costs of coal deliveries.
- Milled uranium increased from \$10.15 per pound in 2001 to about \$14.36 per pound in 2005 -- up about 40%.
- Sulfur dioxide emission allowances have shot up from around \$200 per ton in 2003 to \$606 per ton in May 2006, down from \$1,600 per ton in late 2005. As allowances shrink, prices are likely to rise.

Cost Risks - Fossil Fuels - 2

- Between 2003 and 2005, gas prices delivered to electric generators increased by more than 50% while spot prices jumped more than 100%. While they have dipped, the EIA Short Term Energy Outlook in May has them returning to high levels in 2007.
- In 2005, the U.S. Senate passed a sense of the Senate Resolution that said that global warming was real, that human activity was a substantial cause and that Congress should enact a national program of mandatory, market based limits and incentives on emissions of GHGs.
“Any market-based CO₂ - reduction policy, whether a CO₂ tax on fossil fuels or a cap-and-trade allowance scheme, would significantly raise the operating costs of coal-fired power plants.” Brattle Group, June 2006

Upside fuel cost risks, hence consumer price risks, should warrant serious questioning and hedging of investments.

Wind Integration Costs - Studies

Xcel Energy - Minnesota Department of Commerce Study (2004)

15% of electricity from wind by 2010: Cost \$0.0046 or <1/2¢ p/kWh.

We Energies (Wisconsin)

29% of electricity from wind in 2012: Cost \$0.0029 or <1/3¢ p/kWh.

PacificCorp (Oregon -- Wyoming)

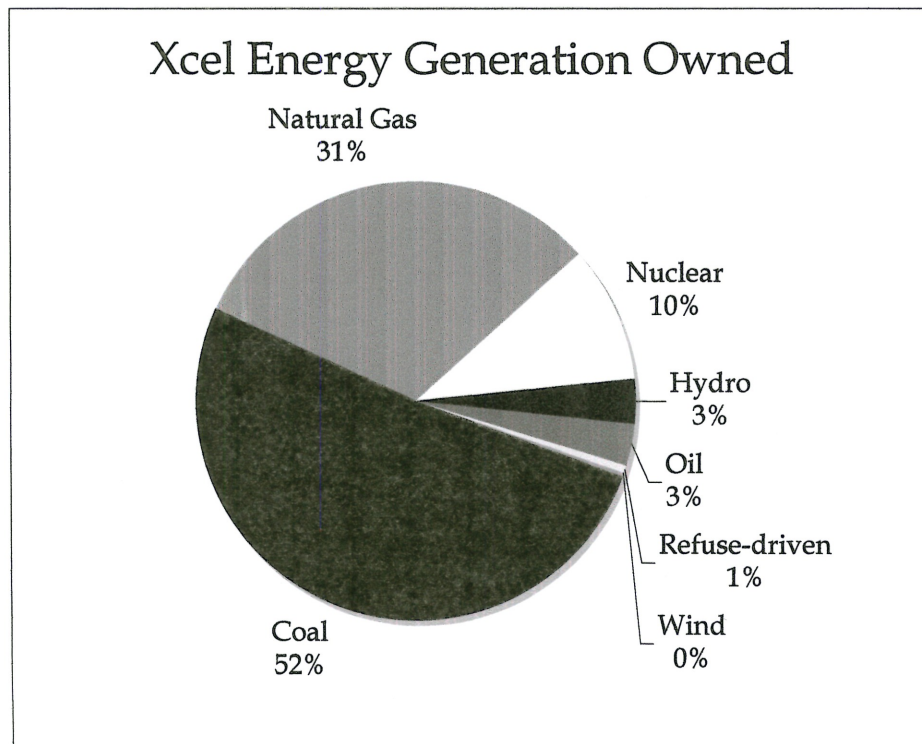
20% of electricity from wind - now: Cost \$0.0046 or <1/2¢ p/kWh.

Several other studies have been conducted and more are coming...

Offset: In an extensive assessment of wind's role in hedging against swings in natural gas prices, Lawrence Berkeley Laboratories placed the hedge value at about \$0.005 or 1/2¢ p/kWh. See: *IEEE Power & Energy*, July/Aug. 2006.

Xcel Generation Owned

Xcel, the largest utility in North Dakota, owns 15,794 Megawatts (MW) of generation - none in North Dakota.



52% - Coal
31% - Natural Gas
10% - Nuclear
03% - Hydro
03% - Oil
01% - Refuse

Source: Xcel Energy Website: <http://www.xcelenergy.com> 7/22/06

Wind Power is Lowest-cost New Generation

Resource Cost Comparison

- Solar – very expensive - \$150/MWh
- Biomass – expensive - > \$80/MWh
- Wind – competitive - < \$30/MWh
- Bogey
 - Pulverized coal: \$45 to 55/MWh
 - Combined cycle: \$45 to \$55/MWh

Xcel Energy

2

Gas has gone up considerably and solar is coming rapidly down. In recognition of the low cost of wind, Xcel in 2005 began giving discounts for those who signed up for wind in Colorado.

Source: Mark McGree, Xcel, University of Minnesota, “Wind Workshop 2003” - October, 2003.

Minnkota Power Cooperative Stops Charging for Wind - July, 2006

Why, according to published statement by George Berg, President and CEO, Nodak Electric Co-op, *Nodak Neighbor*

- “The cost of wind has become more competitive as technology improves and size of wind generators increase”
- “Output exceeded expectations”
- “In recent years, the average cost of power from the market has been on a steady rise. This has caused the ‘average value’ of wind-generated power to be greater.”

And, he adds, “This gives us reason to believe it may be wise to build more wind generation in the near future.”