Alan Muller Energy & Environmental Consulting 1110 West Avenue Red Wing, MN, 55066

September 1, 2017

Daniel P. Wolf Executive Secretary Minnesota Public Utilities Commission 121 7th Place East, Suite 350 St. Paul, Minnesota 55101

Reply Comments: Petition of Xcel Energy to terminate a Power Purchase Agreement, etc. with Benson Power, LLC (Ex Fibrominn)

E002/M-17-530

Dear Mr. Wolf:

I have been involved in controversies over poultry litter incineration projects instigated by Fibrominn and its successors for many year and in several states.

Such projects were rejected in various US states including Delaware, Maryland, Virginia, North Carolina, and Georgia. Thus, observers were puzzled that such a facility would be accepted in Minnesota. They especially were puzzled that "environmental" interests supported, or failed to oppose, the Benson proposal.

Opposition to poultry litter incineration projects has centered on high emissions, high costs, damage to public health and quality of life in host communities, and undesirable diversion of fiber and nutrients from field application to incineration. I note, for example, that so high are the Benson air emissions that a smokestack over 300 feet high was built to disperse these into the community. Only a fifty (or fifty-five) megawatt generator, "The permit granted for their Fibrominn project allows them to be Minnesota's largest single source of arsenic pollution, their largest source of sulfuric acid air emissions, their 2nd largest source of hydrochloric acid air emissions, and a significant new source of dioxin pollution." ¹

The history of the Benson project has been characterized, as would be expected, and as was predicted by opponents, by high emissions, serious and ongoing violations of air permit limits, deceptive practices, and complaints from Benson residents of damage to their health and quality of life. See, for example, this stipulation agreement with the Pollution Control Agency: http://www.bredl.org/pdf2/FibrominnExecutedSTIP12-16-09.pdf

^{1 &}lt;a href="http://www.energyjustice.net/poultrylitter">http://www.energyjustice.net/poultrylitter

The Benson project has been unable to secure adequate amounts of poultry litter and has become largely a wood burner. Poultry litter, in general, is about fifty percent wood chips and fifty percent bird emissions. Thus, the Benson facility, burning, as has been stated, about one-half poultry litter and one-half wood chips is in fact burning about 75 percent wood.

Wood is a very dirty and chemically complex fuel, and nominal wood burners typically cause the same sorts of environmental problems as the Benson "litter" burner, while producing excessively expensive energy.

Exel, it it's Petition, notes a "plant heat rate of 14,250 Btu/kWh per Benson Power's 2016 budget." This corresponds to a thermal efficiency of twenty-four percent. The most efficient coal units have heat rates of around 9,000 Btu/kWh, corresponding to a thermal efficiency of around 38 percent, and combined cycle gas units are over 60 percent efficient.

Thus, I support the proposals of Xcel Energy to terminate power purchase agreements with various "biomass" burning facilities and to purchase and shut down the Benson burner.

(However, one must note the hypocrisy of Xcel in continuing to operate company-owned garbage incinerators in Red Wing, Mankato and French Island (La Crosse) that are similarly dirty and expensive. If Xcel was truly concerned about the well-being of its customers and the public at large it would shut these down and get out of the dirty-burner business entirely.)

(Also parenthetically, large Confined Animal Feeding Operations, including turkey barns, produce large concentrations of nutrients which pose problems. Thus, it is understandable that promoters of "magic bullet" solutions such as incineration have an audience. However, it seems well established that best practices for management of turkey litter should be based on properly managed—not to excess!) land application.)

A review of the filings in this docket indicates—unless I have missed them—no mention at all of the environmental merits, or lack thereof, of the Benson facility. Similarly there is very little mention of the merits of the facility as a power plant. It seems that all the important issues are missed or disregarded.

Unfortunately the actual cost of the Power Purchase Agreement is concealed as proprietary, although it is difficult to imagine any justification for this.

The proposal to pay off the City of Benson out of the proceeds of the "Renewable Development Fund" are yet another abuse of this every-scandalous fund, essentially none of which has ever been used as intended to compensate Red Wing and Monticello.

I conclude that the most important matters in this docket are yet unaddressed, and the comment period should be extended. Especially, it is scandalous that "environmental" interests, which initially promoted the agreement leading to the Benson facility, have not chosen to comment.

I also contemplate petitioning to intervene in this docket.

Yours very truly,

[signed]

Alan Muller