DAIRYLAND POWER
COOPERATIVE

January 20, 2014

VIA E-MAIL

Ms. Gina McCarthy
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Dear Ms. McCarthy:

SUBJECT: Dairyland Power Cooperative's Comments to Environmental Protection Agency – Reducing Greenhouse Gas Emissions from Existing Power Plants

Introduction: Affordable and reliable electricity has been and continues to be our mission. Dairyland Power Cooperative (Dairyland) welcomes the opportunity to respond to the request for comments on Greenhouse Gas (GHG) New Source Performance Standards for Existing Power Plants under Section 111(d) of the Clean Air Act (CAA). Given that the United States Environmental Protection Agency (EPA) has not yet proposed such a rule for comment, Dairyland reserves the right to submit additional or revised comments on this topic in the future. This is a very significant matter for us and our consumer members, and we plan to be engaged at every level of decision making on this issue.

Dairyland is a not-for-profit electric generation and transmission cooperative based in La Crosse, Wisconsin, serving almost 600,000 people in Wisconsin, Minnesota, Iowa, and Illinois. Our Board of Directors is elected by and from the membership of each of our 25 Class A member cooperatives. For our members, affordability and reliability are paramount goals. We are concerned that President Obama's Climate Action Plan and the pending EPA GHG regulations could ultimately end the use of coal, the base load generation resource upon which our system has relied to provide that affordability and reliability for over 70 years. For Dairyland and our members, this will mean a major and extremely expensive transition to other resources such as additional natural gas and renewables. Affordability and reliability could both be threatened by these policies.

Main Point: We need time to transition the fleet to lower-emitting resources. Utilities, particularly those in the Midwest that built large, modern, and efficient coal-fired electric generating units (EGUs) in the 1970s and 1980s were encouraged to select coal over other generation sources such as gas or nuclear-based upon federal policies at the time. Since then, utilities have made further investments in those coal-fired EGUs to maintain operational efficiency, reduce air emissions, limit wastewater discharges and improve solid waste handling – many of which were also driven by federal policy. If coal-fired generation is to be replaced with

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lower-emitting generation, EPA and the Wisconsin Department of Natural Resources (WDNR) need to acknowledge the huge capital investments made in coal-fired EGUs and provide utilities time to pay for those investments.

Section 111(d) requires the EPA Administrator to allow states to consider the remaining useful life of the existing source in establishing the standard of performance for each facility. Failure to allow these sources to operate through their remaining useful life will result in billions of dollars of stranded investment. It must be recognized that each plant has a varied remaining useful life and should be considered on a case-by-case basis.

If the decision is made to reduce carbon dioxide (CO_2) emissions as part of a strategy to deal with climate change, Dairyland and other utilities first and foremost need time to transition. We need time to provide for the cost-effective replacement of coal-fired generation with lower-emitting generation. We need time to pay for hundreds of millions of dollars we have recently invested in air emission controls at our existing plants. We need time to allow utilization of these plants through their remaining useful life. Alternatively, utilities should be held harmless financially for the premature forced closure of those plants by EPA rules by way of a federal "buy down" of stranded costs, or other financial assistance.

During the interim, utilities need flexibility to maintain and update efficiency and environmental controls at existing power plants without triggering Clean Air Act (CAA) New Source Review (NSR) requirements. Energy efficiency and environmental control projects will reduce net GHG emissions and/or emissions of other air pollutants during the remaining useful life of existing plants. Without this flexibility, the NSR requirements will act as a deterrent to these projects and prevent resultant emission reductions at our existing plants. Furthermore, EPA should resist implementing more stringent environmental requirements during the remaining useful life of existing plants so that utilities can conduct long-term planning for the economic transition to lower-emitting generation.

Dairyland, as a not-for-profit cooperative, is dependent on revenue from sales of electricity to our members to finance capital improvements. Historically, we have financed all major capital projects through the United States Department of Agriculture's (USDA) Rural Utility Service (RUS). Over the last ten years, Dairyland has utilized in excess of $725 million in RUS loans to build, maintain, and improve our infrastructure in the Midwest, which helps to keep electricity affordable and reliable for our consumers. RUS has been an invaluable program to rural electric cooperatives, providing low-cost borrowing while yielding significant financial returns for the federal government with very little risk.

Capture and storage of CO_2 is not a viable technology choice.
EPA and WDNR should not set standards for coal-based generation with the presumption that CO_2 capture and storage (CCS) is or will be available for implementation as was assumed in the recently proposed 111(b) rule. The technology for the capture of CO_2 from pulverized coal units is not yet adequately demonstrated or commercially viable, and the opportunity for storage is not available in many areas of the country.

There are currently no feasible technologies for controlling CO_2 emissions from coal-fired power plants. Although, the removal of CO_2 from the flue gas stream is possible and has been demonstrated on a limited scale, the costs (energy demand and operational) of CO_2 capture has not been shown to be economically feasible for full-scale deployment, especially on older existing units. Plus, there are significant technical, economic, and liability concerns with long-term, underground storage of CO_2. Dairyland's coal generation sites are hundreds of miles and at least one state border from any potential geologic reservoirs. The storage of CO_2 is integral to the use of CCS as a control technology and, thus, even if the capture of CO_2 could be done economically, CCS is still not feasible without a viable storage solution.

EPA and WDNR should not place unrealistic expectations on the potential development of CCS as part of this GHG rule making.

Best System of Emission Reduction and GHG emission performance standards
In establishing a Best System of Emission Reduction (BSER) and GHG emission performance standards, it is important to Dairyland that EPA and WDNR exercise **flexible** options to satisfy utility obligations by whatever means available, including reducing GHG emissions within the utility system and averaging or off-setting with others outside the system.

Dairyland's three coal-fired EGUs can not significantly reduce rates of CO_2 emissions beyond what are currently achieved. There may be minor efficiency improvements possible for these plants, but these are not expected to have any significant reduction in CO_2 emission rates.

Natural gas is not economically available at our coal-fired EGUs sites because of the location of our facilities in relation to existing supply lines. Thus, conversion from coal to gas is not feasible.

Practically speaking, the only way to significantly reduce CO_2 emissions from these units is by curtailing operation. Curtailing operations eliminates the effective generation of revenue needed to pay off the existing debt on these units. Thus, if EPA or WDNR were to set a unit-specific, rate-based standard, it would have to be greater than our currently achievable CO_2 emission rates to allow continued operation of these units. Similarly, a system rate-based standard would need to be greater than our system average to allow continued operation of all of our units. On the other hand, a mass-based standard, although theoretically achievable by Dairyland, would be achieved by restricting operation of our coal-fired EGUs. Again, this would potentially limit the generating capacity of the units and thus hamper our ability to pay down the associated debt.

Concerns over big swing to natural gas as base load fuel
In the near term, natural gas is the most likely replacement for coal for base load generation. In large sections of rural America, like those we serve, natural gas is simply not available, and the transition will likely require expansion of the current urban-centric natural gas supply system and likely the construction of many miles of new natural gas pipelines. Much of the Midwest natural gas infrastructure is designed for residential and small commercial uses. We would suggest that the federal government engage in an effort to provide more robust gas resources if coal is going

to be phased out as a fuel choice. Similar to the Department of Energy's (DOE) initiative to identify and fast-track certain high-priority transmission system corridors, the Administration should identify and assist areas where expansion of the natural gas infrastructure is required.

Finally, although natural gas is currently an attractive resource, it has a history of price volatility and supply limitations. New technologies have led to a historically abundant supply and low prices, but these technologies are under intense scrutiny, increasing the financial risk of investing heavily in natural gas generation long term.

Renewables

Dairyland is recognized as a renewable energy leader in Wisconsin, obtaining over 12 percent of our electricity from renewables and growing. Our experience with renewable generation indicates it costs more than traditional resources and has reliability challenges. For example, wind and solar are intermittent, meaning they lack spinning inertia and the ability to be reliably dispatched—necessary characteristics to maintain grid stability. Biomass resources, while a very promising alternative in much of the upper Midwest, need more research and development to become technically successful and economically efficient. As with all renewable resources, the lack of cost effective energy storage options is a significant issue. With few exceptions, electricity must be consumed at the exact instance it is generated because of limited storage options. Continued federal investment in research and development for energy storage technologies is imperative if intermittent renewable resources are to make up an ever larger share of the generation portfolio. Overall, renewable resources are simply not currently suitable for base load generation.

Although there are significant limitations with renewable generation, Dairyland remains committed to increasing our percentage of renewable energy. By resolution, our members have endorsed a goal of achieving 25 percent renewable generation by 2025. We continue to expand our renewable resources, but we do so through programs that make economic and operational sense.

Credit for GHG reductions and offsets

Utilities have made significant reductions in GHG emissions in recent years through coal-fired EGU retirements, addition of renewable energy generation, investments in energy efficiency, and load management programs. Utilities should be credited for these reductions. For example, since 2007, Dairyland has or will retire five of its eight coal-fired EGUs, increased its renewable generation, and reduced peak load with our load management program.

We also support giving utilities alternatives to allow for carbon reducing alternatives or offsets such as forest or agricultural sequestration. The concerns regarding climate change are global, and land use policies can significantly impact them. Allowing all sectors of the economy to develop complementary programs and practices to reduce GHGs makes good sense.

Support for nuclear as a low-emitting future generation resource
Dairyland strongly supports federal action to promote a new generation of nuclear energy as an alternative low-emission generation resource. This must include research and development for suitable types of reactors, as well as economic support and a real solution to spent fuel storage.

Conclusion
In conclusion, if the political or regulatory decision is made to greatly reduce our GHG emissions, Dairyland encourages the EPA and WDNR to couple a gradual implementation of any new GHG regulations with a commitment to assist the industry to maintain affordable and reliable power during this transition and into the future.

EPA and WDNR must ensure that compliance with BSER can be attained by allowing maximum flexibility. We need flexible compliance options and deadlines that allow us to pay off the existing debt on our plants. We urge you to structure a rule that will allow a gradual transition to lower-emitting electric generation that maintains affordable and reliable power.

It is important that a successful outcome is clearly and appropriately defined. Simply shutting down existing coal plants will reduce CO_2 emissions in the short term – but consumers will not view this as a successful initiative if affordability and reliability are sacrificed. The transition to an electric generation portfolio with lower carbon intensity must be done in a manner that does not create undue financial or operational problems.

We encourage EPA to work with the industry to overcome the very real challenges of stranded debt, new generation financing, limitations of renewable technology, energy storage, and natural gas infrastructure expansion.

Sincerely,

Don Huff
Director, Environmental Affairs

DRH:krm

cc: Tom Karman, WDNR - Madison