

## HB 1452 Testimony

Submitted by Sonja Kaye

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I live in South Fargo and get my electricity from **Cass County Electric Cooperative**. Because I get my electricity from a cooperative, I am a member-owner of the cooperative. Being a member-owner means that I do well when the cooperative does well. Conversely, when the cooperative does poorly I do poorly. I am a stakeholder in the economic operation of my cooperative.

Cass County Electric Cooperative is supplied by wholesale cooperative **Minnkota Power** and is considered a member owner of Minnkota, along with 10 other distribution cooperatives. Seventy-five percent of my electric bill is dependent on the cost of Minnkota's electricity production.

I oppose House Bill 1452, because this bill is clearly designed to support carbon capture technology, which is technology that is proven to fail, and in supporting the technology, the bill circumvents market mechanisms that make electricity cheaper. Project Tundra is not going to help Minnkota do better economically, and it will not put the cooperative in a stronger position moving into the future. Instead, I believe it will prevent the cooperative from planning for a future that is more secure. The CEO of Minnkota, Mac McLennan, indicates in a recent video that he is worried about the risk surrounding Project Tundra.

In the video, Mr. McLennan states:

*"... If we don't find solutions and we continue to have a set of conditions that we are living through today, you are going to just continue to find 5 years from now... more (coal) plants in ND under pressure from an operating perspective and whether it's even defensible to continue to operate."<sup>1</sup>*

He stated that in 5 years or less, the coal plants will not even be defensible to operate. Think about what this means. Coal plants in North Dakota are currently marginally economic to operate. What happens when you add expensive, complex and unproven pollution control technologies, such as Project Tundra, to a coal plant? Clearly, the operating and maintenance costs will go way up, not down, making coal plants even less defensible to operate. There is no possible advancement in carbon reduction technology that will ever lower the cost of electricity. It will always be an added pollution control expense.

When asked about the importance of making Project Tundra work, Mac goes on to say:

*"... it's not necessarily... because WE want to see our project go forward. It's really because people need to fundamentally understand that it is a component to having lignite-based generation continue to operate in a carbon -managed... (world and where there is market competition from cheaper energy resources)"*

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[https://www.youtube.com/watch?v=OYiMpxnRing&t=1999s&fbclid=IwAR3OwQsejlt8rj76vx2k03wmdnBb\\_wL1V8yMvDo5T5dKYrVsCML1Pz6OZ4c](https://www.youtube.com/watch?v=OYiMpxnRing&t=1999s&fbclid=IwAR3OwQsejlt8rj76vx2k03wmdnBb_wL1V8yMvDo5T5dKYrVsCML1Pz6OZ4c)

Let me repeat that. The CEO of Minnkota states. “it’s not necessarily because WE want to see our project go forward...” It appears that private industry is more important than consumers.

Why would you want to invest \$40 million (give or take a couple of billion) of ND money to make my cooperative even more vulnerable to energy economic trends that are pushing coal out of the market?

The likelihood of failure of this project is high, especially considering the failure of a similar project in Texas, Petra Nova. If Tundra fails, the 45Q tax credits will not be there to offset the cost of operation. Even if you assume the Project works, the 45Q tax credits, which are worth over \$25 million every year it operates, expire after 12 years. What then? This bill threatens all 140,000 Minnkota electricity users...and the US taxpayers who would be subsidizing the electricity of the 140,000 people dependent on Minnkota.

**To put it another way, we know the tax credits will end after twelve years; but they could expire sooner if the operation fails to perform as hoped. This is not sustainable. Money is better spent on projects we KNOW will provide benefit for many decades into the future, not just a few years.**

Coal has been an amazing resource over the past 50 years, but the reality of the situation is that coal will play a small role, if any, in our long-term electricity future. An article which I note below quotes an independent think- tank that argued last year that:

*“... SWB (solar, wind and battery) costs would fall a further 70% over the next 10 years...”<sup>2</sup>*

Minnkota and the Lignite Industry are over-estimating the value of coal with carbon-capture technology. Solar, wind and battery technology, among others, will supersede demand for expensive coal technology.

It is time for the Lignite Industry to plan their exit strategy from the electricity market, not increase costs for consumers.

*“Continued over-investment in an asset class beyond what the fundamental value can possibly return is the very definition of a financial bubble,” the report says.<sup>3</sup>*

Our overcommitment to coal is creating a bubble in the North Dakota energy market. Project Tundra will amplify this bubble. Where are we going to be when the bubble bursts?

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<sup>2</sup> <https://reneweconomy.com.au/over-valued-fossil-fuel-assets-creating-trillion-dollar-bubble-about-to-burst/>

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Many of you attended the joint hearing the afternoon of March 11 to learn how North Dakota utilities and system operators fared during the February weather event. The presenters told us the biggest deficits in capacity in our region came from coal and natural gas plants. Four gas plants and four coal plants operated either sub-optimally or not at all. Another coal plant was available but was not dispatched due to its cost. Reasons for the derated plants included electrical issues, frozen pipes, and coal ash build up. Of most concern to me, however, was the reason for the derates at MDU's Lewis and Clark coal and natural gas plants: low river levels.

Access to water is vital to the operation of conventional power plants like coal and gas. The average 500 MW coal plant uses 300 million gallons of water per day.<sup>4</sup> As droughts become more common due to climate change, our grid will be increasingly vulnerable to new weather patterns if we are overly dependent on conventional power plants. As droughts become more common, coal will become less reliable and feasible, as illustrated by MDU's situation. Even more concerning, adding carbon capture equipment significantly **increases** the amount of water needed. I do not think we want to make ourselves more vulnerable by relying too much on thermal generated power. Coal is not the reliability savior that we want to believe it is, and it is certainly not the low-cost option that is being advertised. See the article I have provided in this testimony for further details.<sup>5</sup> I quote from the article:

*"Coal and gas power plants with integrated carbon capture and storage (CCS) are doubly mispriced (overvalued). **Governments** (like yourselves in this committee) must protect **people**, not incumbent companies or **industries**, from the **financial risk of the conventional energy asset bubble**"<sup>6</sup>*

**By funding projects like Tundra, we are holding electricity consumers hostage with the continued threat of overinvestment in coal assets**, rather than providing low- cost electricity, to which end the electricity market was created. MISO has a market process called unit commitment which strives to use the lowest cost generation that is available first. Because Minnkota is obligated to supply the amount of electricity its customers' demand and Minnkota's capacity portfolio is heavily dependent on the operation of its coal plants to provide adequate supply, MISO has no choice but to allow Minnkota to run their coal plants, regardless of being a higher-cost source of electricity.

Brian Tulloh, MISO Executive Director of External Affairs, says this about cold-weather events **"Neighbors** are very important at a time like this!" and "From a grid standpoint, you never want to be an island electrically and unable to access help from your neighbors."

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<sup>4</sup> Water is used for cooling, processing/ cleaning and steam. Information is on the Department of Energy website.

<sup>5</sup> <https://reneweconomy.com.au/over-valued-fossil-fuel-assets-creating-trillion-dollar-bubble-about-to-burst/>

<sup>6</sup>Rethinking Energy; Page 7;

<https://static1.squarespace.com/static/585c3439be65942f022bbf9b/t/604a545fe0dbf3775ee6329b/1615484151178/Rethinking-Energy-LCOE.pdf>

This bill intends to take Minnkota's already small island of electricity generation and making it even smaller.

Reliance on coal-fired power puts Minnkota in a very dis-advantageous position in terms of responding quickly to a grid that is increasingly dynamic. In order to maximize cheap renewable energy, Minnkota needs to have an energy resource capable of responding quickly (within minutes) to the fluctuations in low-cost renewable energy output. Without this flexibility they are doing a disservice to their customers and putting up roadblocks for all their customers wanting to install solar panels on their properties.

Minnkota states that they use a demand response program for flexibility, a demand response program that they have used for decades and is, arguably, out of date. Part of the program requires industrial customers to burn expensive diesel fuel to provide adequate peak power, diesel fuel which, which emits large quantities of CO<sub>2</sub>. These days I would expect this type of demand response program mainly to be used in emergency situations, not as flexibility in responding to renewable energy.

I, also, want to add that there are big differences between the "low-emission" technology like Project Tundra and actual green technology, like solar and wind. Solar and wind and other renewables are low-cost and are truly low emission. **Coal** is never low emission. You cannot get away from basic chemistry. Burning coal produces CO<sub>2</sub>, even with the expense of Project Tundra. The capture technology does not stop the emission; it just relocates the CO<sub>2</sub>.

Project Tundra poses environmental and health hazards; CO<sub>2</sub> is also a toxic substance when in high concentrations. If the CO<sub>2</sub> is pumped underground, who will be monitoring this toxic substance for leaks? What is the plan when it does leak? Who is financially liable if a leak harms a person or asphyxiates an entire town in coal country? In addition to being low- cost and potentially zero-emission, renewables are better options because they are both sustainable and innocuous to the environment. The hazards that coal pose, on the other hand, are expensive. Clean up costs from coal ash alone are in the billions.

These are difficult matters to bear in mind and decisions will never be clear if the people making them have a financial interest in maintaining the status quo. **We need an independent, knowledgeable and non-discriminatory body making energy decisions.**

The unfortunate truth is: Coal fired power plants are not going to be saved by **short-term** projects like Project Tundra. Minnkota and its members, like myself, will not be helped by Project Tundra or increased funding for similar projects. Project Tundra is just a short-term measure to attempt to appeal to a carbon-constrained world. **There is no viable long-term business plan here.**

The Lignite Industry and associated communities DO need your help. Minnkota needs your help, but do not support expensive short-term projects that provide no economic benefit to consumers. Support projects which have a future, such as energy storage, smart grid investments, national transmission planning, or large- scale renewable projects that benefit ND citizens. A great example of how energy projects can help citizens would be the recent successful project in Batesville, Arkansas where a solar installation on school property helped the school district save \$600,000, enough to give all the teachers in the district up to a \$15,000 raise.<sup>7</sup> Does Project Tundra promise a raise to our hard-working teachers?

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<sup>7</sup> <https://news.yahoo.com/schools-solar-panel-savings-every-125507252.html>

No. Support projects that benefit ND electricity users. Do not hurt the 140,000 members dependent on Minnkota electricity by encouraging my cooperative to continue operating assets that are increasingly **not defensible and never will be defensible in the future**. Stop the indiscriminate investment in coal-fired electricity.

**Please, vote no on HB 1452. Thank you.**

Reliability of resources is compensated by the ISO markets: Below a snapshot taken from the MISO website that illustrate MISO’s market mechanism for rewarding reliability characteristics in generation resources. Utilities may offer any of their resources into this market if they meet certain criteria. This market is called the ancillary market. It is separate from the buying and selling of electricity.

Ancillary Market MCP 📄 ⏴ ⏵ 🔄

17-Mar-2021 - Interval 09:40 EST [View Map](#)

Day-Ahead Market Zone	Generation Regulation	Generation Spinning Reserve	Generation Supplemental Reserve	Demand Supplemental Reserve
1	10.45	3.39	0.45	0.45
2	10.45	3.39	0.45	0.45
3	10.45	3.39	0.45	0.45
4	10.45	3.39	0.45	0.45
5	10.45	3.39	0.45	0.45
6	10.45	3.39	0.45	0.45
7	10.45	3.39	0.45	0.45
8	10.45	3.39	0.45	0.45

17-Mar-2021 - Interval 09:40 EST

Real-Time Market Zone	Generation Regulation	Generation Spinning Reserve	Generation Supp Reserve	Demand Supp Reserve	Regulation Mileage MCP
1	8.68	2.90	0.18	0.18	0.31
2	8.68	2.90	0.18	0.18	0.31
3	8.68	2.90	0.18	0.18	0.31
4	8.68	2.90	0.18	0.18	0.31
5	8.68	2.90	0.18	0.18	0.31
6	8.68	2.90	0.18	0.18	0.31
7	8.68	2.90	0.18	0.18	0.31

Ramp MCP 📄 ⏴ ⏵ 🔄

17-Mar-2021 - Interval 09:40 EST [View Map](#)

Day-Ahead Market Zone	Ramp Capability Up MCP	Ramp Capability Down MCP
1	0.00	0.00
2	0.00	0.00
3	0.00	0.00
4	0.00	0.00
5	0.00	0.00
6	0.00	0.00
7	0.00	0.00
8	0.00	0.00

17-Mar-2021 - Interval 09:40 EST

Real-Time Market Zone	Ramp Capability Up MCP	Ramp Capability Down MCP
1	0.00	0.00
2	0.00	0.00
3	0.00	0.00
4	0.00	0.00
5	0.00	0.00
6	0.00	0.00
7	0.00	0.00
8	0.00	0.00

Information related to failed carbon capture facility, Petra Nova: [https://earth.gizmodo.com/the-only-carbon-capture-plant-in-the-u-s-just-closed-1846177778?fbclid=IwAR1Ot\\_Zjyh2Pl1ZrwSr2saxX6C34-pffLhuGqNxFeP8NMn8bbq4wvaFy29M](https://earth.gizmodo.com/the-only-carbon-capture-plant-in-the-u-s-just-closed-1846177778?fbclid=IwAR1Ot_Zjyh2Pl1ZrwSr2saxX6C34-pffLhuGqNxFeP8NMn8bbq4wvaFy29M)