

67 LEGISLATIVE ASSEMBLY

Testimony on SB 2313 RELIABILITY TESTIMONY

Submitted by Sonja Kaye

States are not responsible for resources attached to the grid. To state that they are is a gross misinterpretation of ISOs' position. ISO's position is that states address problems regarding the social benefit, interplay and free market access resulting from or affecting the MIX of resources. If the mix of resources is working, then no policy is needed. **Regarding reliability, ISOs' position is that states follow recommendations from the ISO.** (The ISO will identify problems.) **Not the other way around.**

North Dakota's electric grid is part of a larger bulk electric system. It is not the job of North Dakota, the lignite industry, or individual utilities to maintain the reliability of the bulk electric system. Reliability is the job of MISO and SPP. They are Reliability Authorities, as is CAISO, California's Reliability Authority. California reaches renewable penetration of 67% and zero coal with no reliability issues. They have fewer brown outs and black outs on a per capita basis than North Dakota does.

Even without legislation, opportunity already exists for coal plants to sell their reliability services into the ancillary market operated by MISO and SPP. As it is a free market, they must, however, compete with other resources offering similar services, such as hydro, gas, wind, battery, and even solar. It is not necessary to mandate reliability, and it is not right to conflate dispatchability with reliability. *Please see the article below that describes the capabilities of wind and solar.*

https://www.esig.energy/grid-flexible-solar-and-wind-what-it-means-for-our-future/?fbclid=IwAR3Dy1eTSdzwYTi3UJ4_42zVWIXkq1aEkhgEXYKzcVesubWs6G6-_Rfg5pU

Not only is coal NOT synonymous with reliability, but it is, also, NOT synonymous with baseload. The concept of baseload is not what it used to be 20- 30 years ago, where your cheapest resource (then coal) would be the resource you run at constant output to cover the minimum demand in a 24- hour period.

The current and future grid system is much more dynamic and changes with the fluctuations in intermittent energy, (fluctuations that will diminish as renewable energy becomes more widely distributed across the country.) Intermittent electricity is cheaper than coal and must be allowed to dip as far as possible into “baseload” as possible. Coal is not a good player in this new system, because it lacks the flexibility to respond to these fluctuations. Its inability to ramp up and down keeps it from backing away when there is cheaper energy available from a different resource.

For the last 50 years of electricity grid history, FERC has established guidelines (for example PURPA, FERC orders 888 and 889 etc.) to increase grid efficiency, thereby reducing costs and dependence on foreign markets and to open electricity markets allowing competitors with zero fuel costs to play fairly with conventional resources. SB 2313 will fly in the face of 50 years of work by FERC. If passed, this bill would drive away renewable energy projects and enable monopolies, uneconomic dispatch, inefficiency, and gold-plating. All are flaws in the market which should be discouraged not promoted.

We have rules of economic dispatch to create the most economically efficient electricity production. Creating arbitrary rules for operating uneconomic power plants will kill any hope of economic efficiency and will lead to gold-plating. Gold-plating is over-investment in capital expenditures. Gold-plating leads to an unnecessary increase in the cost of electricity. Additionally, I would not like the PSC telling my cooperative how they should operate.

Penalizing renewable energy is neither necessary nor economically prudent.

I also oppose repealing Chapter 17- 01 for the reasons stated in Chapter 17- 01. “Increasing America's renewable energy use will bring new technologies to market and save consumers money.” Renewables are, by far, cheaper than coal, especially carbon- sequestered coal.

The true intent of this bill is to keep the Lignite Industry alive. The Lignite Industry is promoting the idea that coal is necessary for reliability, The Lignite Industry is trying to create value for a resource where value only marginally exists. They are pandering to people’s fears of the loss of reliability of the grid in order to achieve value for their resource. The reliability of the grid is not in danger. The Lignite Industry, the state of North Dakota and individual utilities are not responsible for the reliability of the bulk electric grid. Reliability is explicit responsibility of MISO and SPP, the ultimate and federally recognized grid

authority(s) on reliability is MISO (and SPP.) I have yet to see a recommendation from them that we spend more money on fossil fuel technology to maintain reliability of the electric grid.

Coal was a great resource for many decades past but will only have a small place in our electricity future. The sooner we accept this and move on the better. This is why I urge you to oppose SB 2313.

For your convenience I have included below an excerpt from MISO's Reliability Imperative completed in December of 2020.

MISO REGION RELIABILITY IMPERATIVE – Dec. 2020 Draft 4

1. Market Redefinition: The initiatives in this category aim to ensure that resources with the types of capabilities and attributes the system needs will be available in all 8,760 hours of the year. This is important because as noted above, the region is increasingly facing reliability risks outside of the summer peak-load months that historically posed the greatest challenges. Specific efforts in this area include providing a longer-term and deeper assessment of system needs across all hours of the year, including required capabilities such as flexibility; shifting to verifying sufficient generation adequacy across all hours of the year; improving how resources are accredited; ensuring that prices accurately reflect market conditions, especially during emergencies; and development of market products that provide the right incentives for resources to maintain system reliability.

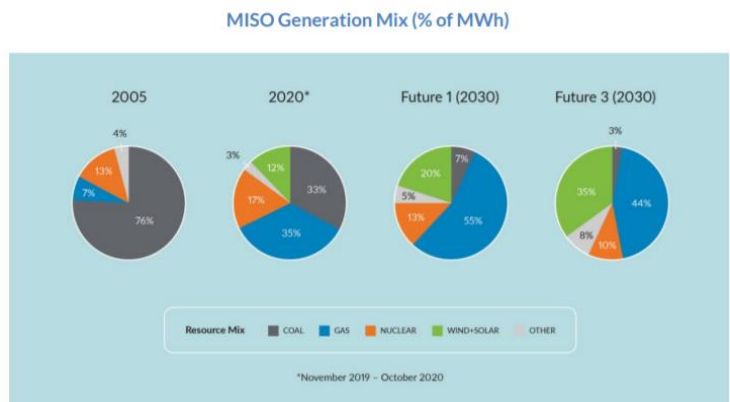
2. Long Range Transmission Planning: This effort is designed to identify what transmission the region will need going forward as the electric industry continues to evolve. For example, building additional transmission is especially crucial to support the continued growth of large-scale wind and solar, since those resources are often located far from load centers. A robust transmission plan can also reduce the cost of electricity for consumers by signaling better locations for resource siting that deliver fuel cost savings, decarbonization, and flexibility.

3. Operations of the Future: This effort is designed to ensure that MISO will have the kinds of skills, processes, and technologies it will need to effectively manage both wholesale and retail connected resources. For example, this initiative will leverage artificial intelligence, machine learning and advanced analytics among other tools to help future MISO control-room operators effectively forecast, visualize, and manage grid uncertainty. It will also help MISO to better manage maintenance and “pre-position” the grid ahead of system changes such as

weather.

4. *Market System Enhancements: This category of work is designed to transform MISO's historical system—which was built in the early 2000's—into a more flexible and secure system that will meet the needs for years to come. Current systems and technology are not capable of accommodating the increasing demands for new, reliability-driven market enhancements and fully leveraging the opportunities of new resource types such as storage and residential generation options (like rooftop solar) to meet future challenges. This initiative will employ flexible architecture and analysis to support the evolving resource mix and future-state processes for operating MISO markets.*

Public @ <https://cdn.misoenergy.org/MISO%20Response%20to%20the%20Reliability%20Imperative504018.pdf>



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From **North American Electric Reliability Corporation (NERC)** website:

The vision for the Electric Reliability Organization Enterprise, which is comprised of NERC and the six Regional Entities, is a highly reliable and secure North American bulk power system. Our mission is to assure the effective and efficient reduction of risks to the reliability and security of the grid.

See below for reliability standards that have been finetuned by industry professional over several decades. **ND state government has no business interfering with their process.**

<https://www.nerc.com/pa/Stand/Pages/default.aspx>

“Baseload” is now a meaningless concept now that multiple resources are cheap enough to cover base power.

If by “baseload” power we mean coal power, the time of **“retaining our baseload resources as long as practical”** as John Weeda states in his testimony is **already gone**. Coal plants are already impractical to operate, which is why half of them are already closing.

Remember: The mission of Minnkota Power Cooperative is to keep our electricity the best energy value in the region.