



March 31, 2015

**Attention: Docket No. AD15-4-000**

**United States of America, Federal Energy Regulatory Commission  
FERC Central Region Technical Conference, St. Louis, MO, On Environmental Regulations (e.g.  
EPA's Clean Power Plan Section 111(d)) and Electric Reliability, Wholesale Electricity Markets  
and Energy Infrastructure**

**Written Comments from Panelist/Presenter:**

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Minnesota Power, an operating division of ALLETE, welcomes this opportunity to provide input at the FERC Central Region Technical Conference related to EPA's proposed regulation of existing electric generating units under Clean Air Act Section 111(d); EPA's Clean Power Plan (CPP). Our comments will center on the need to maintain reliable, affordable and environmentally responsible electric service for consumers.

Minnesota Power appreciates that FERC has structured this session as a solution oriented effort. That is, FERC is seeking means to maintain electric system reliability and wholesale market integrity, and assure that prudent energy infrastructure investments are made to meet electric consumers' needs. Consequently, Minnesota Power offers FERC our perspective on state and regional reliability, affordability, power market impacts and energy infrastructure challenges created by the proposed CPP, and compliance with other environmental regulations, along with prospective solutions that address these challenges.

We offer these comments in an attempt to make implementation of the Clean Power Plan workable in Minnesota and prospectively all states. Minnesota Power recognizes that there are several known Clean Power Plan legal issues that must and need to be properly addressed. We fully support this legal clarification to assure that EPA is within its regulatory jurisdiction. Utilities, and indeed utility economic regulators, need that knowledge so that utilities can make, and regulators can approve, needed energy infrastructure investments that are in the public interest while being mindful that these costs will ultimately be paid for by electric customers.

Minnesota has deployed early action measures delivering climate friendly environmental performance. Minnesota utilities, regulators and legislators have been working with Minnesota stakeholders for years to address environmental concerns, including explicit recognition of climate change as a global concern that warrants a deliberative Minnesota policy response. This has resulted in an array of early action measures in Minnesota, such as an aggressive renewable portfolio standard that includes solar, wind, biomass and small hydro resources, early retrofit of coal unit environmental controls and an aggressive customer conservation and energy efficiency program. Taken in total, these actions have already given

“Minnesota-sensible” consideration to the four, Best System of Emission Reduction (BSER) measure “building blocks” that EPA has used to derive its proposed CPP state targets (announced in June of 2014 and clarified with technical support documentation in October of 2014). Minnesota Power’s Energy*Forward* strategy, which was approved in our most recent Integrated Resource Plan, includes a combination of emission reductions from power plant environmental retrofits, plant repowering, plant closures, additional renewable deployment, and additional customer conservation measures. Energy*Forward* is structured to shift Minnesota Power’s electricity supply resources serving our Minnesota customers from a mix that was 95% coal and 5% renewables in 2005 to a more balanced mix of about 1/3<sup>rd</sup> each renewables, natural gas and coal going into the 2020s.

One of the key attributes of Energy*Forward* will be the construction of a new transmission line to accommodate imports of Canadian sourced renewable hydro generation. This energy both supports our post 2020 needs and assists with the integration of Minnesota Power’s deployment of substantial new wind generation in North Dakota to serve Minnesota customers. Other Minnesota utilities have been deploying emissions-friendly measures in support of Minnesota’s environmental excellence goals as well. Customer cost impacts associated with the collective Minnesota environmental measures implemented since 2005 have been significant, amounting to an estimated 2.5 cents per kilowatt hour electricity cost increases for Minnesota Power customers alone. Recognition of these early actions, or more accurately the lack of EPA recognition of the actions taken by Minnesota utilities, is of great concern regarding how EPA set the CPP’s emission reduction target for Minnesota. The aggressive CPP target in Minnesota will have both reliability and cost implications, Minnesota Power has commented to EPA that EPA should accept and fully recognize these proactive Minnesota “early action” measures, implemented and ongoing through 2030 and beyond, as an approvable basis for Minnesota State Implementation Plan (SIP) compliance with EPA’s finalized Clean Power Plan.

Coincident with input to EPA’s public comment process through December 1, 2014, Minnesota Power has also identified several areas in the CPP proposal that need “fixing”. For this FERC Technical Conference, Minnesota Power is focusing on two of these comment areas that should be among key considerations for FERC Commissioners as they consider CPP reliability, power market viability, energy infrastructure issues, and consumer cost impacts:

1. **Remove the Block 2 BSER contribution to CPP state targets.** In recent years Minnesota has added a significant amount of Natural Gas Combined Cycle (NGCC) generation which has largely been utilized to load-balance and integrate renewable energy resources mandated by state law. The Clean Power Plan’s proposed Best System of Emission Reductions (BSER), Block 2, re-dispatch from existing coal to existing NGCC generation upsets this balance and should be eliminated. Elimination of Block 2 actions is necessary to preserve customer electricity service reliability, to avoid disruption of power market least cost dispatch and to avoid excessive CPP compliance costs (\$ per ton CO<sub>2</sub> reduced) to electricity customers.
2. **Reopen the CPP for public review and comment after EPA resolves the significant uncertainties in the proposed CPP Block 3 (renewables targets).** Renewable ownership rights, state obligations and state CPP renewables target stringency questions are forming from the uncertainties introduced by the proposed CPP. These uncertainties, including the resolution of important cross-border issues, are significant and can exert substantial shifts in how the CPP may impact reliability, customer cost and regional power markets-- enough to justify EPA

affirming specific resolutions and accepting additional public stakeholder comments before the CPP rule is finalized.

The Clean Power Plan proposed Block 3 BSER, expanded renewable energy measures, need to be reconciled for cross border renewable ownership rights for compliance burden attribution, state jurisdictional rights sufficient for determination of a state's overall CPP state target stringency and the state's recognized standing for compliance progress beyond existing renewables **before the CPP rule is finalized**. It is essential for states to have the opportunity to make a properly informed analysis of prospective CPP state impacts as due diligence before a major rule like the CPP is finalized. It is also important that states have opportunity to fully examine their relative differences in CPP state target stringency set by EPA for impacts on their customer CPP compliance costs before states are called upon to explore measures that involve collaboration between states for purposes of reducing customer costs.

As much as 30% of Minnesota's retail electric supply in 2020 is unresolved because of the uncertainty surrounding sourcing and ownership crediting of cross-border renewables under the proposed CPP. This degree of uncertainty is aggravated because EPA's technical support documentation credited renewables owned and operated by utilities in one state, but physically located in another state, as being recognized in that other state. This proposed "takings" of renewables property rights" has caused confusion amongst states and exerts a high risk of states double counting renewable generation resources. This creates compliance concerns and may affect state and regional electric reliability. Similarly, the full potency of CPP state renewable compliance obligations is not known. Uncertainty about "what counts" and "which state gets to count it" combined with uncertainty about "how much a state needs to comply" creates significant challenges as Minnesota and other state stakeholders evaluate CPP impacts. Inherent system reliability, environmental performance demands and electricity system infrastructure impacts from such a large swing in prospective CPP renewables needs is compelling for justifying resolution of these uncertainties before CPP rule finalization.

### **Further explanation**

The complexity and real-time nature of grid operations that underpin electric system reliability become even more challenging when factoring in EPA's mandated environmental redispatch of existing NCCC generation (Block 2) and integration of both existing and new intermittent renewable resources (Block 3). Factors such as regional differences in the relative fuel mix of affected generating units; different utility regulatory and business models (e.g. investor owned, public power, regulated rate-based cost recovery, merchant power state regulation etc.); different utility customer needs (e.g. industrial vs. residential, low income and energy intensive, internationally competitive industry); transmission constraints, gas pipeline capacity, and railroad service issues that affect coal delivery represent some of the regional energy supply infrastructure challenges that must be fully understood in order to support energy system changes brought about by the CPP.

Minnesota Power offers a listing of "call outs" that helps place the two conclusions (need to remove the Block 2 contribution from state CPP targets and the need to clarify renewables target stringency and ownership/state standing before rule finalization) in increments that can help guide through the complexities.

**Item 1 Existing coal generation to re-dispatch to existing NGCC generation, “Block 2” considerations.**

**A. EPA’s CPP Block 2 eliminates most of the availability of existing coal and removes unutilized existing NGCC capacity that was serving to support system reliability.**

Of the four BSER Blocks identified by EPA in the CPP (Block 1, generating unit efficiency improvement; Block 2, re-dispatch from existing coal to existing NGCC generation up to a 70% NGCC capacity factor; Block 3, expanded renewables and at risk nuclear service extension; Block 4, customer conservation and energy efficiency), only Block 2 places direct environmental compliance generation constraints on the CPP affected generating unit generation. The other three CPP Blocks serve to create more energy generation resources through deployment of efficiency and conservation measures or construction of new capacity.

Block 1 enhances overall energy supply by reducing the amount of fuel consumed and the related CO<sub>2</sub> emissions when generating the same megawatt hour output. Block 3 provides for more or extended operation of zero emissions generating capacity to help meet CPP targets. Block 4 reduces electricity generation demand, relieving pressure on the generation resources needed to serve customers.

The effect of exercising Block 2 to reduce CO<sub>2</sub> emissions is to remove most of the existing NGCC unutilized production capacity from being available to support system reliability reserves while simultaneously inserting an operating constraint on existing coal generation that impedes the use of underutilized coal generation to support system reliability.

**B. Measures such as converting EPA’s rate based target to a mass based target simply memorialize the collective BSER target measure stringency imposed on existing coal generation referencing 2012 as the rate to mass conversion process seeks a rate based compliance equivalent, CO<sub>2</sub> emissions tonnage cap.** Conversions to mass based targets apply EPA’s proposed target emission rate stringency measures for Blocks 1, 3 and 4 when determining allowed annual tons of CO<sub>2</sub> from CPP affected existing units. Scarcity of allowed CO<sub>2</sub> emissions tons is made firm through assumed deployment of new energy efficiency, conservation and renewable energy while CPP compliance is affirmed by demonstrating that generating units operated within the supply of emission allowances. All four proposed BSER state target components are structured as “reach goals”, leaving no cost-effective slack in the state targets that might enable over compliance in one Block area to give relief to the Block 2 target stringency cross-over impacts. Rather, shortfalls in achieving the Block 1, 3 and 4 target components place more pressure to reduce existing coal generation output while providing for state compliance with the overall CPP state target. It is also notable that even when an allowance or mass tonnage allocation is distributed, existing coal generation is significantly more constrained than natural gas when reserves are operating to compensate for the fast pace of load swings associated with intermittent wind and solar renewable energy.

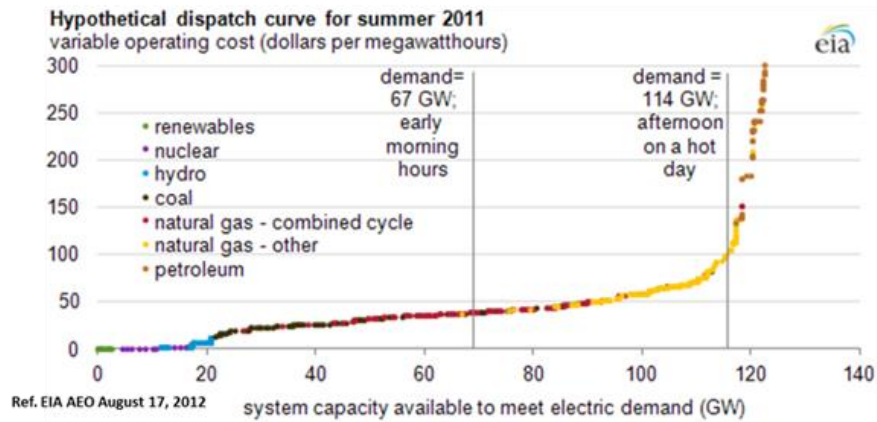
**C. Creation of a system reliability “safety valve” may give relief for Block 2 related system reliability issues.** The magnitude of this “reliability safety valve” relief would need to compensate for the lost generation reserve functions due to CPP Block 2 constraints placed on

both existing coal and NGCC operation. The Midcontinent Independent System Operator (MISO) has indicated that system reserves of 14% are a typical minimum to assure reliability. MISO's has done coal retirement analysis to cross check how MISO reliability may be impacted by the Clean Power Plan. However, it is unclear whether MISO's modeling has recognized the inherent existing coal and NGCC generation constraint associated with delivering Block 2 credits. This system reliability reserve gap needs to be filled until new generation capacity can be deployed sufficient to reestablish reserves at satisfactory levels unless emission "leakage" to other generation sources is to be ignored by the CPP. Consequently, both measures are warranted: a safety valve assuring Blocks 1, 3 and 4 compliance is able to be achieved without creating reliability issues plus elimination of the Block 2 CPP state target contribution component.

- D. EPA's BSER cost-effectiveness analysis for Block 2 did not include the costs for replacing system reserves lost through Block 2 implementation.** EPA's cost-effectiveness technical analysis is based off its social cost of carbon calculations. EPA's analysis gives consideration to fuel market pricing differences between coal and natural gas most relevant for eastern United States power markets, converted the dispatch cost differential to equivalent dollars per ton of CO<sub>2</sub> reduction achieved when switching from existing coal to the higher natural gas cost. EPA then designated BSER cost effectiveness by demonstrating how state costs for the BSER Block component can compare favorably with the US Government's Interagency Review of the Social Cost of Carbon 2013, while assigning a controversial 3 percent discount rate through the timing of CPP proposed compliance dates with a 300 year climate damage outlook.
- E. Replacement of the 2768 megawatts of existing NGCC capacity in Minnesota with new NGCC capacity that delivers equivalent system reliability reserves would add a Block 2 driven, capital investment premium of \$60 to \$90 per ton CO<sub>2</sub> reduction beyond EPA's fuel cost differential premium.** In the Midwest, the coal vs. NGCC unit fuel cost differential is estimated at about \$50 per ton CO<sub>2</sub> reduction. Consequently, Block 2 target delivery costs adjusted for recovery of equivalent system reliability posts at between \$110 to \$140 per ton CO<sub>2</sub> reduction, severely failing EPA's cost effectiveness screen (\$37 per metric tonne CO<sub>2</sub>) during the initial CPP compliance period. Elimination of Block 2 measures from being a part of determining EPA's CPP BSER state target for Minnesota and Midwest states is well justified from a cost-effectiveness screening perspective.
- F. Over complying with EPA's other three BSER targets is cited by EPA as part of the intrinsic flexibility offered by EPA's proposed CPP design, but is structurally ineffective for giving relief to Block 2 driven reliability concerns.** Most notably, preserving integrity of the Block 2 crediting mechanism needs to have one megawatt hour reduction from 2012 coal generation mated with the megawatt hour increase in NGCC production. This "mating" generates about a half a ton CO<sub>2</sub> reduction per coal MWH re-dispatched to NGCC. About a 2 MWH re-dispatch shift is needed to deliver a one ton CO<sub>2</sub> reduction allowance. Absent the 1:1 mating of existing coal and NGCC production, the least cost power market (reference Figure "Least Cost Dispatch"), marginal dispatch price impact from increased existing NGCC production would be expected to mostly displace the dispatch of less cost efficient natural gas resources being bid for power market dispatch (refer to diagram, EIA least cost dispatch model). Replacement of less efficient natural gas generation with expanded use of existing NGCC

generation also brings a CO<sub>2</sub> emission reduction benefit but at a much lower net benefit relative to Block 2 “displacement” of existing coal generation. Consequently, over compliance with the CPP proposed BSER Blocks 1, 3 and 4 measures can

### Least Cost Dispatch: the marginal dispatch unit sets the market price impacting cost recovery and customer cost.



begin to reduce the need to dispatch existing NGCC at a full 70% capacity factor but Block 2 re-dispatch credit from coal to gas still needs delivery of that bundled 1:1 mating of decreased coal with increased existing NGCC production to support compliance.

**G. Minnesota’s neighbor states also have Block 2 related system reliability concerns as existing coal generation dispatch becomes encumbered through mating coal generation decreases with increased NGCC operation.** Minnesota’s proposed CPP Block 2 target places 2768 MWs of existing NGCC capacity into an environmental compliance constrained status. While North Dakota has no Block 2 related NGCC production constraint, South Dakota, Wisconsin and Iowa have Block 2 target components for 324, 2977 and 1264 NGCC megawatts, respectively. Collectively, over 7300 MWs of NGCC generation in Minnesota and Minnesota’s bordering states become subject to Block 2 operating restrictions while impeding coal generation through Block 2 related operating restrictions. This further exacerbates regional system reliability. Replacement of this existing NGCC and coal related operational reserve in these five states involves over \$7 billion in capital investment that far exceeds the cost-effectiveness criteria applied by EPA for those states when reliability related reserve capacity replacement is weighed in with due consideration.

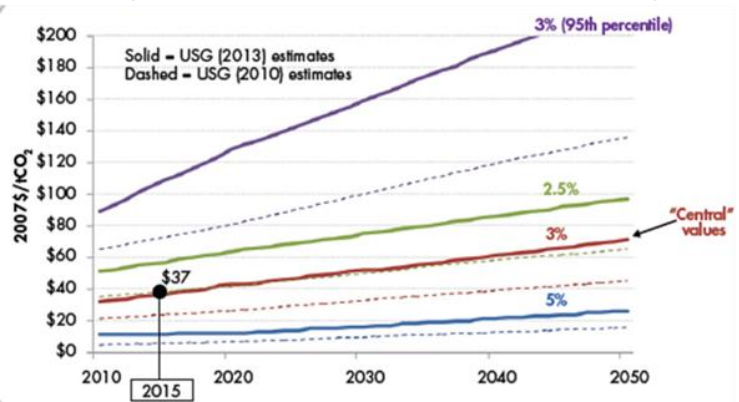
**H. Block 2 re-dispatch of coal generation to existing natural gas places cost recovery of recently deployed environmental control retrofits at risk within less than five years of the timing at which EPA mandated their deployment to support generating unit operational compliance.** Depending on the capitalization structure appropriate for an electric utility, major capital investment for emission control retrofits might involve a 20 to 33 year period for normal cost recovery from customers. However, when coal generation recently outfitted with these controls is not operated at levels reviewed by state regulators when deployment was approved for compliance with recent EPA regulations, cost recovery can be placed at risk. A host of recent EPA’s rules contribute to this dilemma: (e.g. the Clean Air Interstate Transport Rule (CAIR compliance in 2008), Cross State Air Pollution Transport Rule (CSAPR in 2015), Clean Air Visibility Rule (CAVR or “regional haze” ongoing since 2013) and Mercury and Air Toxics

Rule (MATS under current controls deployment), Coal Combustion Residuals (CCR, ongoing in 2015) and Effluent Limitation Guidelines (ELG, ongoing in 2015).

State regulators mindful of customer cost impacts are aware of this problem. EPA should provide for sufficient time in its final CPP rule for existing coal units to achieve full, normal cost recovery with the regulatory measures they promulgated since 2005. This simply recognizes that EPA has the responsibility to consider its own regulatory mandates under implementation when examining cost effectiveness of its proposed new regulatory measures, such as the Clean Power Plan.

- I. **EPA’s own CO<sub>2</sub> screening criteria for EPA regulation cost-effectiveness review needs to carry consistency over time that reflects the remaining useful economic life of generating units that have prudently provided for compliance with EPA’s emission regulations.** EPA must consider stranded investments in its cost-effectiveness analysis and should recognize that these costs will ultimately be borne by the utility investors that had a reasonable expectation for normal cost recovery and electricity customers. These entities will shoulder the costs for EPA reforming its regulatory policies.
  
- J. **In the case of the CPP Block 2 target setting, it is notable that Minnesota legislators already authorized consideration of environmental externality costs including CO<sub>2</sub> when assessing best resource options for Minnesota several years ago, but at significantly lower values.** Minnesota regulators require the consideration of carbon dioxide emission externality costs in sensitivity analyses when Minnesota environmental control retrofits were reviewed for prudence, cost-effectiveness and approved cost recovery through electric rates. However, Minnesota stakeholders are only seeing application of cost effectiveness criteria in an EPA environmental regulation at the magnitude of CO<sub>2</sub> comparator values being presented by EPA for the first time in their proposed CPP state target BSER cost effectiveness analysis (i.e. reference to the 2013 Interagency Report on the Social Cost of Carbon, graphic inserted below). The 2013 update to the 2010 Social Cost of Carbon report released by the U.S. government presented about a 30% increase in CO<sub>2</sub> damage cost estimates within just three years from when the previous SCC damage cost estimate was released, yet neither the 2010 nor the 2013 Social Cost of Carbon report has received the “sound science” peer review appropriate for determining whether the SCC methodology is appropriate for applications such as cost-effectiveness analysis for CPP state CO<sub>2</sub> performance target setting. In fact, the Office of Management and Budget has released guidelines for cost-effectiveness reviews that stipulate use of different methodology than what was done for the Interagency SCC report preparation and EPA’s subsequent cost-effectiveness review. Pre-2010, the environmental policy discussion

**USEPA Reference for the Clean Power Plan:  
US Government, Interagency Review of Social Cost of Carbon  
(Public Comments Under OMB Review Since 2013)**



about CO<sub>2</sub> cost considerations fell into the realm of that considered during impact analysis when Waxman Markey cap and trade legislation was under review (e.g. DOE EIA had reported an estimated \$15 per ton CO<sub>2</sub> allowance valuation increasing with escalation over time when EIA prepared legislation cost effectiveness analysis for Congress). EPA's reference to the 2013 Interagency SCC report is the first instance where climate impacts are characterized at a magnitude that might demonstrate how some regions may find it cost effective to re-dispatch from existing coal to existing NGCC while focusing on fuel price differences. As noted above, consideration to how Block 2 would compel replacement of NGCC capacity to support system reliability significantly increases Block 2 compliance costs significantly, well above even the 2013 SCC indicated cost thresholds over time with a 3% discount rate. (refer to diagram, SCC).

### **Renewables Attribution and Goal Stringency, “Block 3” considerations.**

The major reliability issues related to EPA's “Block 3” analysis stem from how EPA's analysis only gave consideration to renewable resources located within a state's borders. EPA expanded on this “within state borders” foundation by identifying state retail customer electricity service and electricity generation information limited to within a state's borders. EPA then proceeded in their Technical Support Documentation to assemble and provide a cost-effectiveness analysis for EPA's proposed BSER target for each state. Confusion in intra-state and cross-border treatment of renewables occurs as EPA seeks to provide for flexibility by offering alternatives for public comment.

These “in-state” renewable resources were presented in EPA analysis as providing progress towards compliance with that state's CPP BSER renewables target. Further, EPA presented their CPP base option for setting a state's renewable energy target by first comparing the state with other states in a region, then importing the average renewables portfolio standard implemented by these other regional states as the basis for setting each state's BSER target contribution for renewables. Offering flexibility, EPA also asked for comments about an alternative that would assign the renewables target for a state based on the state's economic renewables development potential, which prospectively, can be a much higher or in some cases, lower renewables target for the state than the regional state portfolio standard average.

While EPA's good intentions for offering flexibility are to be applauded by stakeholders, it was brought to EPA's attention during regional forums for proposed rule public input and through public comments to the Docket that cross border exchange of electricity and renewables credit is routinely practiced across the nation. Consequently, EPA's treatment of in-state renewable energy production in 2012 ignored cross-border contractual and facility ownership rights and obligations that can extend well into the CPP compliance period.

EPA encouraged states to address resolution of such concerns in their State Implementation Plan submittals by offering solutions that use state flexibility to authorize and substitute other measures for compliance in their SIPs. EPA also encouraged states with mutual interests to enter into multi-state agreements that might include joint submittal of multi-state, State Implementation Plans for EPA approval. It comes as no surprise that there is significant uncertainty amongst states as to how these events can be reconciled equitably and about the real stringency of Block 3 BSER targets that need to be accommodated for state CPP compliance. Across the 48 states, a doubling of the renewable energy deployment obligation imposed in a state in EPA's final rule relative to EPA's proposed rule would not



be an unusual outcome. Similarly, the resolution of cross state ownership rights in the proposed rule can easily insert factor of two shortfalls in the evaluated credit for existing renewables in a state compared to how EPA proposed the final rule. Associated cross over into creating regional electricity system reliability problems can then be expected, at least through the years it takes for regulated parties to reconcile the gap between their anticipated CPP obligations and those defined in EPA's final CPP rule.

The solution is for EPA to re-propose the renewables Block 3 portion of their Clean Power Plan in a manner that has these uncertainty areas explicitly clarified. The public must have a reasonable opportunity to comment on a regulation that will exert such a large influence on how electricity is generated, the CPP rule cost to customers and expected environmental benefits from CPP implementation before it is finalized.

Absent such EPA Block 3 clarifications, states are left speculating about both the stringency of the rule for the state and about what existing renewable energy resources will be assigned to the state as credited progress towards achieving the state's CPP renewables target. In the case of Minnesota, the uncertainty of renewables component target stringency carries a range of 15% of Minnesota retail electricity sales to about 30% and also carries a range in creditable existing renewables deployment of about the same magnitude. This sort of Minnesota CPP BSER state standard uncertainty carries its "converse" uncertainty in neighboring states such as North Dakota that "balance out" the exchange of electricity sourcing and deployment to customers.

In EPA's technical support documentation, EPA has already indicated that Minnesota utility owned renewable energy located in North Dakota is included as part of North Dakota's estimated CPP target compliance progress and vice versa, Minnesota interests have been advised that the renewable energy resources deployed in other states to serve Minnesota renewable portfolio standard measures through agreements and ownership rights will be honored. This creates a "double counting" of renewable resource assignment to states and a related potential for a "takings" of property rights that needs resolution, including another period for public review and comment, before the CPP rule finalization.

Similarly, the need to eliminate Block 2 contributions from the CPP state targets involves a major change in the proposed rule that can warrant EPA's re-proposal of the Clean Power Plan for stakeholder review. As noted by Minnesota Power in the introduction to this commentary, Minnesota and Minnesota utilities have already taken extensive measures to proactively deliver greenhouse gas emission reduction friendly policies that address the EPA's Clean Power Plan four BSER areas. Minnesota Power encourages EPA to accept the implementation of a proactive program like that being practiced in Minnesota as a sufficient basis for complying with EPA's final CPP rule.

### **Minnesota Power (ALLETE) Background:**

Minnesota Power (MP) is an investor owned electric utility headquartered in Duluth, Minnesota, serving about 140,000 electric customers in northern Minnesota and northwest Wisconsin. A unique aspect of MP's electricity service is exhibited by how about sixty percent of our electricity sales serve the electricity needs of 13 large industrial customers that are energy intensive in support of iron ore and wood products production and require affordable electricity services around-the-clock to compete in international markets. Our iron mining customers provide the majority of the mined iron feedstock supplying the United States steel industry while our wood products customers serve an important role in

Minnesota's managed forestry planning while delivering competitive wood products to market. Preserving a healthy domestic steel industry is an important part of helping assure United States security while both the Minnesota iron (taconite) mining industry and wood products industry serve a foundational role in the northern Minnesota economy.

MP's BNI Coal also provides mine-mouth lignite coal that fuels North Dakota electricity generation units in central North Dakota that provide electricity services to North Dakota, Minnesota and other states. ALLETE Clean Energy (ACE) is providing clean energy resource development through projects including deployment of renewable wind energy resources that serve Midwestern utilities. MP is also expanding the import of renewable hydroelectric generation from Canada (Manitoba Hydro) that, in conjunction with new transmission infrastructure development, is allowing renewable hydroelectric generation to provide reserves that support intermittent renewables such as new solar and wind generation.

Minnesota Power thanks the FERC Commissioners and FERC staff for this opportunity to share our reliability and related concerns about the Clean Power Plan at this Technical Forum. We will be glad to meet with the FERC staff and Commissioners to answer questions related to this commentary.

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