PRELIMINARY ASSESSMENT OF THE FINAL CLEAN POWER PLAN RULES

In August 2015, the Environmental Protection Agency (EPA) issued its final Clean Power Plan (CPP) rules, which may prove to be the most significant environmental regulation affecting the electric power sector to date. As we have noted, our early efforts and environmental leadership will ease the remaining work we have to do to achieve our share of CPP compliance. However, we are just at the beginning of an effort that will require coordination and collaboration across many different stakeholder groups both in Minnesota and across our Upper Midwest region. In this attachment, we discuss our preliminary understanding of the impact of the final rule on our NSP System.

The EPA's CPP for existing power plants under section 111(d) of the Clean Air Act was a proposed rule at the time of our January 2, 2015 filing and March 16, 2015 Supplement. It became a final rule on August 3, 2015.[1] Thus, EPA's final targets in both rate (lbs CO_2/MWh) and mass (tons CO_2) terms for the NSP System's five states are now known. While the final rule lowered the reduction target for Minnesota and South Dakota, it significantly raised the reduction target for North Dakota, with smaller increases for Wisconsin and Michigan. That said, only the Minnesota targets affect the Company directly, since we own and operate CPP-regulated units only in Minnesota.[2] Despite announcement of the final rule, much remains unknown about what CPP compliance will require of the Company. Many of the key decisions that will ultimately shape the 111(d) State Plans, due to EPA by September 2018, remain undecided.[3]

In our filings to date, we noted that the Preferred Plan we proposed would allow us to meet the Next Generation Energy Act (NGEA) Greenhouse Gas (GHG) goals and our renewable energy requirements and objectives – and put us on a path to address EPA CPP requirements, based on our analysis of the proposed rule. We still believe the Preferred Plan will exceed the NGEA goals and our renewable energy mandates. Our preliminary analysis of the final rule suggests it would also achieve CPP compliance in rate-based terms, in the event the Minnesota Pollution Control Agency

[1] Environmental Protection Agency. 40 CFR Part 60. *Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units*. August 3, 2015. Posted at http://www2.epa.gov/cleanpowerplan/clean-power-plan-existing-power-plants.

[2] NSP owns no existing fossil units in North Dakota and Michigan, and our generating units in Wisconsin and South Dakota are exempt from the CPP definition of "affected electricity generating unit."

[3] States may file an "initial submittal" in September 2016, requesting an extension to September 2018 to file final plans. CPP final rule at pages 1475-1476.

(MPCA) designs a rate-based plan and assigns regulated utilities the same targets as EPA assigned to Minnesota.

Whether the Preferred Plan would achieve CPP compliance in mass-based terms is more difficult to say, since this requires assumptions about how MPCA might allocate the statewide allowance budget. Our preliminary analysis of the final CPP rule suggests that, based on conservative assumptions about allowance allocation, the Preferred Plan may not be sufficient to sustain carbon dioxide (CO_2) emissions below a possible allowance budget for NSP throughout the planning period.

Conversely, we believe that in either a rate-based or mass-based scenario, our revised proposal will likely exceed our CPP compliance obligation – generating valuable surplus reductions that would benefit our customers in an interstate collaboration scenario. We explain our reasoning below.

A. Proposed Rule

In the proposed CPP published June 18, 2014, Minnesota's and Xcel Energy's early efforts and environmental leadership were highlighted. However, the proposed rule did not give early action credit to the State of Minnesota, and generally assigned more stringent targets to states who had already achieved greater CO_2 reductions prior to the rule's baseline year of 2012. Minnesota's 2030 target in the proposed rule was 873 lbs CO_2/MWh. Under the Preferred Plan we initially proposed adding over 4 GW of wind and solar to reduce coal generation and bring the NSP System under the EPA's target for the state of 873 lbs. Thus, if MPCA assigned utilities a rate-based target equal to the state's target, the Preferred Plan we initially proposed would have been CPP-compliant in rate terms, without retiring coal units.

Mass-based compliance with the proposed CPP was more difficult to analyze, since the rule provided complex formulas for converting state rate goals into mass equivalents, and the mass goal for Minnesota appeared to be significantly more stringent than its rate equivalent, in part because of our Sherco Unit 3 having been offline for the entire baseline year of 2012. The MPCA, the Company, and others drew EPA's attention to these issues.

B. Final Rule

We worked with the MPCA and other stakeholders to advocate for revisions to the proposed rule that would make the final rule fairer to our Minnesota customers. In the final rule, Minnesota's 2030 target is 1,213 lbs CO_2/MWh in rate terms and 22.7

million short tons CO_2 in mass terms.[4] We note, however, that the target in the final rule is not comparable to the 873 lbs CO_2/MWh target in the proposed rule, since the formula significantly changed with the elimination of pre-2012 renewable energy, "at risk" nuclear, and energy efficiency from target-setting – as well as a regionalized rather than state-by-state approach to target-setting.

In any event, it is clear that Minnesota's interim and final targets are less stringent in the final rule than in the proposed rule. This is due to a different target-setting methodology that tended to bring all states' targets into a narrower band of values, as well as a technical correction the EPA made for Sherco Unit 3 having been offline for the entire baseline year of 2012. We believe the following discussion portrays a reasonable understanding of how the final CPP might apply to both our Preferred Plan and the revised proposal outlined in this Reply.

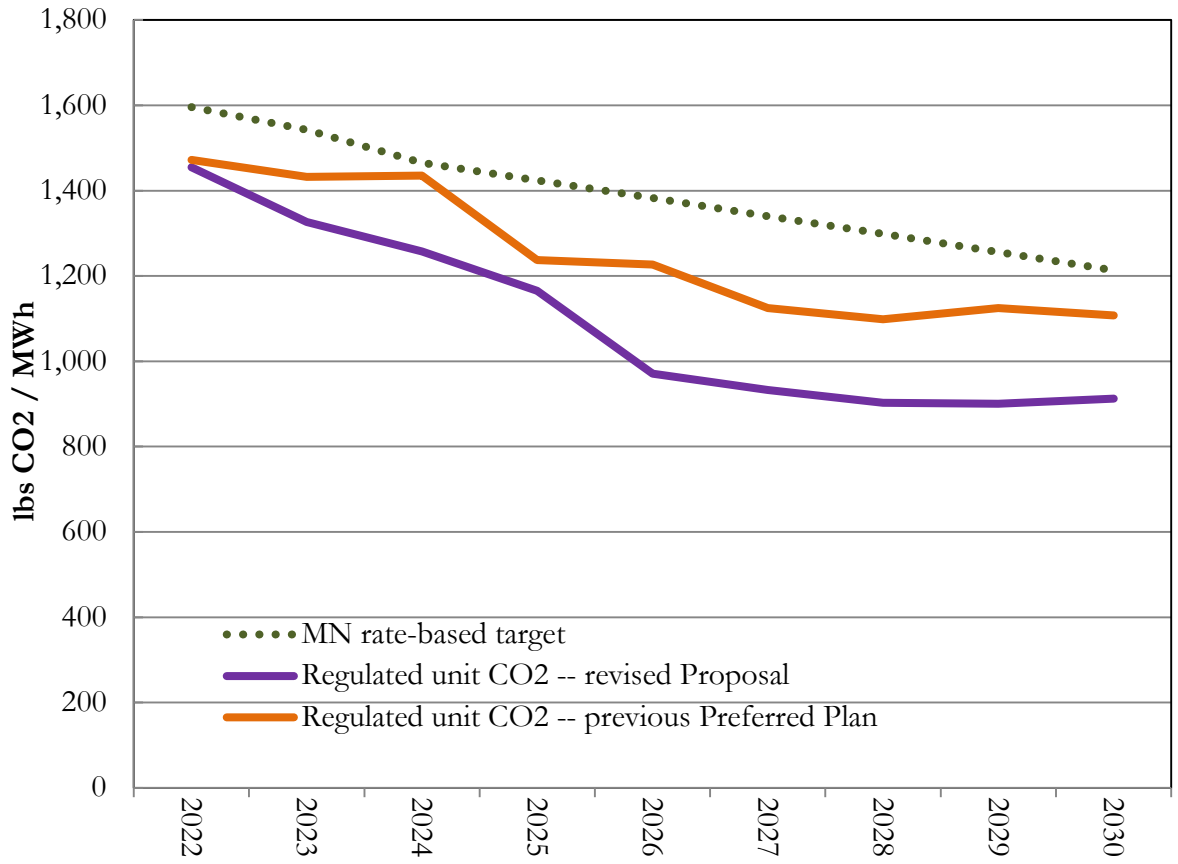
1. Rate-Based Compliance

Considering the new target of 1,213 lbs CO_2/MWh, the Preferred Plan continues to appear CPP-compliant in rate terms. The Preferred Plan would drive the NSP System to a CO_2 rate, under the final rule formula, of 1,107 lbs/MWh[5] in 2030 – below EPA's target for the state in that same year. Thus if MPCA assigns utilities a rate-based target equal to the state's target, the Preferred Plan would be CPP-compliant in rate terms without retiring coal units. Likewise, our revised Proposal would be CPP-compliant in rate terms, achieving a CO_2 rate under the CPP formula of 912 lbs/MWh in 2030, well below the state's 2030 target of 1,213 lbs/MWh. Figure 1 below demonstrates this rate-based compliance view; both the Preferred Plan (purple solid line) we initially proposed and our revised Proposal (orange solid line) would be below the MN rate-based budget (green dotted line) in all years.

[4] EPA target for total emissions from existing affected EGUs in Minnesota. The mass-based target for existing and new units (i.e. including the "new source complement") is slightly higher.

[5] This represents the NSP CO_2 rate according to EPA's formula in the final 111(d) rule, which is different from the NSP System's CO_2 rate under the more conventional metric of total emissions from owned and purchased power divided by total owned and purchased power. The NSP CO_2 rate under the latter metric would be 720 lbs/MWh in 2030 for the Preferred Plan.

Figure 1: Potential Final CPP Compliance Position in Rate Terms



2. Mass-Based Compliance

In mass terms, our previous Preferred Plan would reduce NSP's total CO_2 emissions from 111(d)-regulated units to 18.0 million short tons in 2030, while the revised Proposal would reduce total CO_2 emissions from 111(d)-regulated units to 9.8 million short tons in 2030.[6]

However, whether any plan achieves CPP compliance in mass-based terms is more difficult to assess than rate-based compliance. Mass-based compliance is determined by bringing total CO_2 emissions from the 111(d)-regulated units below a total budget of allowances allocated to NSP (plus any allowances purchased from others). Since MPCA has not yet made decisions about allowance allocation, any evaluation of mass-

[6] This represents total CO_2 emissions from 111(d)-regulated existing units, and does not include emissions from exempt units (simple-cycle CTs, biomass EGUs, etc.) or new units (units that commenced construction after January 8, 2014 and are thus regulated under section 111(b)).

based compliance is preliminary and depends on making reasonable assumptions about decisions MPCA has yet to make.

Under EPA's default method of allowance allocation in the proposed federal plan and model trading rules, allowances would be allocated among owners/operators of 111(d)-regulated units based on share of generation from those units in 2010-2012.[7] This would give NSP about 69 percent of the Minnesota budget. Our preliminary mass-based compliance evaluation assumes:

- MPCA creates a CPP plan for existing regulated units only, i.e. leaves new units outside its 111(d) plan,
- MPCA sets aside allowances, in the amounts suggested by EPA, for renewable energy, preventing emissions leakage from existing natural gas combined cycle (NGCC) units to new NGCCs, and the Clean Energy Incentive Program (CEIP), but does not set aside allowances for other purposes,[8]
- MPCA allocates the remaining mass budget to affected electrical generating units (EGU) on the basis of 2010-2012 generation, the default allocation in the proposed federal plan and model trading rules,
- NSP is able to win back a share of the allowance set-asides for renewable energy, existing NGCCs, and the CEIP, and
- MPCA does not adopt a provision in EPA's proposed federal plan that would only award allowances to a retiring unit for the remainder of a compliance period in which it retires, and award no allowances to units retiring more than two years prior to 2022.[9]

We note that states are not required to adopt this (or any other) allocation provision in the proposed federal plan or the model trading rules.

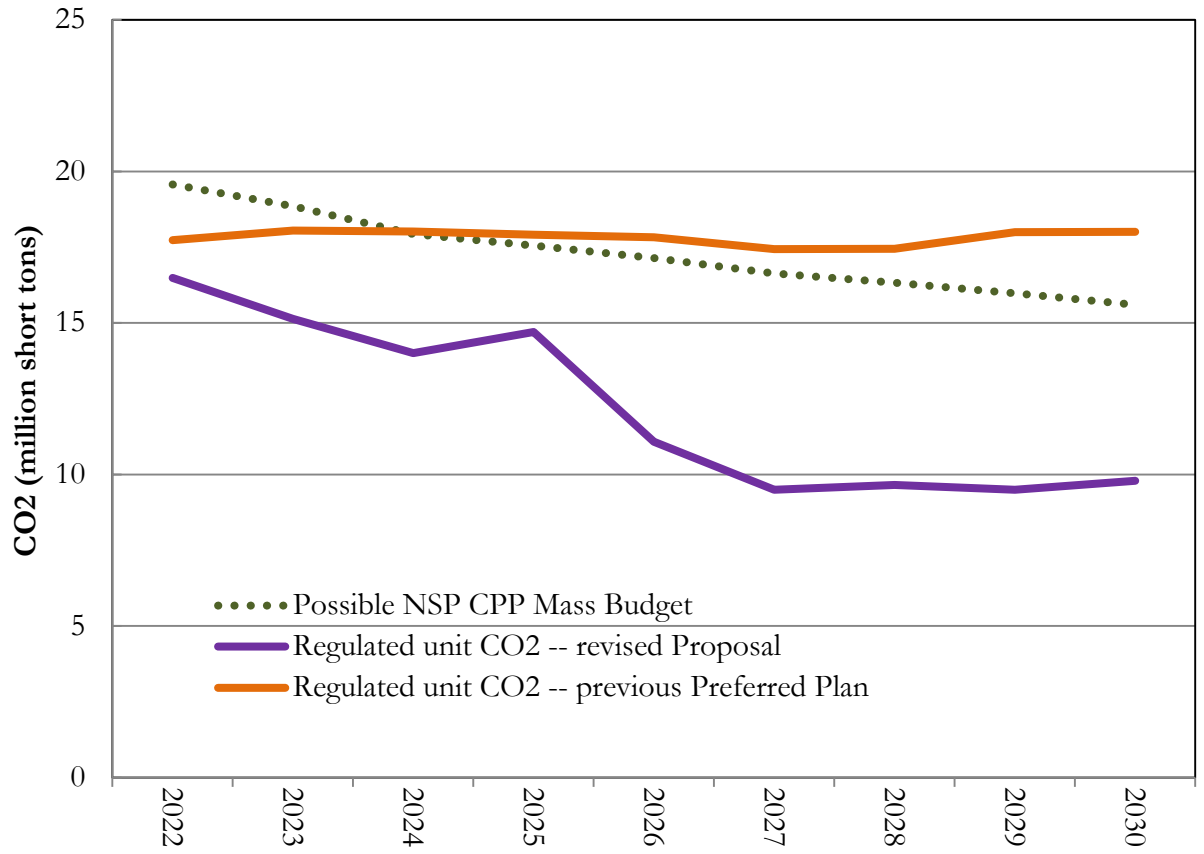
Under these assumptions, the CO_2 reductions associated with our Preferred Plan would exceed NSP's responsible share in the 2022-2024 compliance period, but would fall short in the 2025-2027 and 2028-2029 compliance periods. Under the rule, we would be allowed to "bank" allowances, or use surplus allowances from the first compliance period to make-up for some of the shortfall in the second and third periods. However, even with banking, we would be short allowances overall in the

[7] Environmental Protection Agency. 40 CFR Part 62. *Federal Plan Requirements for Greenhouse Gas Emissions from Electric Utility Generating Units Constructed on or Before January 8, 2014; Model Trading Rules; Amendments to Framework Regulations*. August 3, 2015. Page 252.
[8] EPA, Federal Plan Requirements and Model Trading Rules, pages 477-484.
[9] EPA, Federal Plan Requirements and Model Trading Rules, page 486.

2022-2029 interim period, requiring the Company to purchase allowances from others in order to achieve CPP mass-based compliance.

We demonstrate this mass-based compliance view in Figure 2 below. The CO_2 forecast for the Preferred Plan (purple solid line) we initially proposed lies below the allowance budget allocated to NSP (green dotted line) initially, but above it after 2024 – and surplus allowances banked in 2022-2024 are not sufficient to fill the shortfall after 2024.

Figure 2: Potential Final CPP Compliance Position in Mass Terms



In contrast, under our revised proposal, CO_2 emissions from the CPP-regulated units (orange solid line) would be well below the NSP mass budget (green dotted line) in all years. We would not be required to purchase allowances to achieve CPP compliance, and in fact we could generate a significant quantity of surplus allowances to facilitate interstate CPP solutions that would benefit NSP customers in all five NSP System states.

It is important to note that this analysis is preliminary. At present we do not know if MPCA will implement a rate-based or a mass-based approach to Minnesota's 111(d) plan; whether the plan will regulate EGUs only ("emission standards" plan) or other entities as well ("state measures" plan); and what share of the statewide CO_2 reductions will be assigned to NSP. There are more unknowns as well. If MPCA implements a mass-based approach, we do not know how MPCA will allocate allowances; whether intra- or interstate trading will be available; whether new (built after January 2014) units will be brought into or remain outside the plan; or whether MPCA will implement the allowance set-asides suggested by EPA and/or any other set-asides. Accordingly, we cannot definitively say whether the Preferred Plan would or would not be sufficient to achieve CPP compliance for NSP.

We can, however, say that our revised proposal appears to go beyond CPP compliance, and has the potential to generate value for our customers. Retiring Sherco Units 1 and 2 and accelerating the addition of solar and wind renewable generation, will create a surplus of allowances or Emission Rate Credits that can be used to the benefit of our Upper Midwest customers, including the possibility of using this value on a regional basis to smooth rate impacts for our customers.