STATE OF MINNESOTA
PUBLIC UTILITIES COMMISSION

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In the Matter of an Investigation into Implementing Changes to the Renewable Energy Standard and the Newly Created Carbon Free Standard under Minn. Stat. § 216B.1691	**Docket No. E-999/CI-23-151**

REPLY COMMENTS OF THE CLEAN ENERGY ORGANIZATIONS

March 19, 2025

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INTRODUCTION

The Minnesota Center for Environmental Advocacy ("MCEA"), the Sierra Club, and Fresh Energy (collectively, the "Clean Energy Organizations" or "CEOs") appreciate the opportunity to submit reply comments regarding compliance reporting and verification under Minnesota's Carbon-Free Standard ("CFS").[1]

Sections I and II below respond to the Department's recommendations regarding hourly matching. Section III urges the Commission to order utility preparedness reporting every two years, as the law requires. Section IV responds to proposed approaches regarding utilities' attribution of carbon-free generation to Minnesota. And Section V recommends the use of trackable certificates or credits for all carbon-free generation, including partial credits for generation from facilities deemed partially carbon-free.

ARGUMENT

I. The Commission Should Adopt the Department's Recommendation to Require Hourly-Matching for CFS Compliance

The Department's January 29 comments recommend that the Commission require utilities to show CFS compliance based on hourly-matching.[2] MCEA and the Sierra Club support this recommendation.[3]

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[1] These reply comments respond to initial comments submitted following the Commission's Notice of Comment Period and Updated Timeline, *In the Matter of an Investigation into Implementing Changes to the Renewable Energy Standard and the Newly Created Carbon-Free Standard under Minn. Stat. § 216B.1691,* Docket No. E-999/CI-23-151 (Oct. 31, 2024).

[2] Department's initial comments, p. 8-10.

[3] Fresh Energy does not join this Section I, but it continues to support positions in Section II of CEOs' initial comments, and it supports the Department's recommendation for hourly-matching analysis in resource plans (discussed in Section II below).

The goal of the CFS is to move Minnesota toward the carbon-free generation grid we will need to rely on in the future. The Department makes a compelling case that shifting to hourly matching is far more compatible with that goal than continuing the current approach of annual matching. Hourly matching sends the appropriate market signal, promoting the construction of carbon-free generation and storage capable of meeting Minnesota's energy needs when they actually arise. Hourly matching will thus reduce Minnesota's dependence on carbon-emitting sources, helping to achieve the state's statutory goal of reducing GHGs by 50% by 2030 and reaching net zero by 2050.[4] And as the Department has explained, continued use of annual matching incentivizes utilities to pursue carbon-free generation that does not match load, increasing the utility's and its ratepayers' exposure to market risks.

We also support the Department's recommendation to modify the Commission's earlier decision to allow Renewable Energy Credits ("RECs") to be eligible for use in the year of generation and for the four following years.[5] This four-year shelf-life for RECs is incompatible with the transition to hourly matching.

The Department's recommendation would not require any hourly matching until 2035 and would not require complete hourly matching until 2045.[6] While we recognize that utilities need sufficient time to transition to hourly matching, they will not necessarily need the full five-year lag that the Department proposes for each of the statutory deadlines. We recommend instead that the Commission require all CFS compliance requirements to be

[4] Minn. Stat. § 216H.02, subd. 1.
[5] Department's initial comments, p. 11.
[6] *Id.*

achieved using hourly matching by 2035. The electric grid and carbon-free energy markets are changing rapidly, and if we are to achieve our climate goals the pace of that change will have to accelerate. If the Commission finds in the years ahead that those changes have not been fast enough to make full hourly-matching by the 2035 deadline feasible, it can always postpone that deadline or craft partial exceptions that reflect the state of the carbon-free energy market in the future.

II. The Commission Should Adopt the Department's Recommendation to Require Utilities to Use Hourly-Matching in Integrated Resource Plans

The CEOs support the Department's proposal that utilities be required to model hourly matching in their integrated resource plans ("IRPs").[7] As the Department notes, this requirement will help ensure that utilities acquire the resources that best fit their expected hourly demand and that utilities and ratepayers are not overly exposed to market instability. Additionally, as we noted in our initial comments at pages 13-15, requiring hourly matching in IRPs will provide information the Commission and stakeholders need to determine if the IRP is in the public interest and meets the other requirements of state planning laws. Specifically, it will help the Commission and others assess the extent to which the IRP minimizes environmental harms,[8] limits risks posed by changing factors beyond the utility's control,[9] reduces long-term regulatory risks,[10] and helps achieve Minnesota's statutory GHG reduction goals.[11]

[7] Department's initial comments, p. 12.
[8] Minn. R. 7843.0500, subp. 3, item C.
[9] Minn. R. 7843.0500, subp. 3, items D and E.
[10] Minn. R. 7843.0500, subp. 3, item B.
[11] Minn. Stat. § 216H.02, subd. 1.

III. The Commission Should Enforce the Statutory Provision Requiring Utilities to Submit Preparedness Reports At Least Every Two Years

Multiple utilities have asked the Commission to rely on their IRPs to demonstrate their preparedness to comply with their standard obligations under section 216B.1691, without mentioning the need for other preparedness filings.[12] To the extent they are suggesting that IRPs *alone* might be sufficient, they would be asking the Commission to ignore the explicit language of the statute, which requires a utility to "report on its plans, activities, and progress with regards to the standard obligations under this section in its filings under section 216B.2422 or in a separate report submitted to the commission every two years, *whichever is more frequent,* demonstrating the utility's effort to comply with this section."[13] The information in these reports must then be compiled by the Commissioner of Commerce and used to inform reports to the legislature, due every two years, regarding utilities' progress under the law and any recommendations for regulatory or legislative action.

The gap between utility IRP filings under Minn. Stat. § 216B.2422 is often far more than two years.[14] Given that there is now only five years before the first compliance deadline in 2030, utilities must be held to the two-year preparedness-reporting schedule required by law if the Commission and Department are to fulfill their oversight responsibilities and if the legislature is to be given the information it has demanded to track

[12] OTP comments at 2-3; Xcel comments at 1-3; MP comments at 2; GRE comments at 1-2; Minnkota at 1.
[13] Minn. Stat. § 216B.1691, subd. 3(a), emphasis added.
[14] For example, there was a gap of over five years between Otter Tail's 2016 IRP filing and its 2021 IRP filing, which was then replaced with different plans in 2023. Minn. Pub. Utils. Comm'n, *In the Matter of Otter Tail Power's 2023-2037 Integrated Resource Plan,* Order Modifying Otter Tail Power's 2023-2037 Integrated Resource Plan, Docket No. E-017/RP-21-339 (July 22, 2024); and *In the Matter of Otter Tail Power Company's 2017-2031 Integrated Resource Plan,* Docket # E-017/RP-16-386.

utilities' progress. The rapid changes in demand forecasts and technology costs makes it even more important to enforce the requirement for reporting on a two-year schedule.

We ask that the Commission make clear in its order that, while IRPs will certainly need to show that a utility's plan complies with the CFS and RES, utilities will also need to make supplemental filings to ensure they demonstrate their preparedness to meet their obligations under section 216B.1691 at least every two years.

IV. The Commission Should Ensure that Utilities Do Not Inappropriately Claim Credit for Carbon-Free Generation that Was Not Generated to Provide to its Minnesota Customers

Otter Tail Power's proposal for calculating CFS compliance fails to adequately differentiate between carbon-free electricity generated to provide to Minnesota customers and carbon-free electricity generated to provide to its customers outside of Minnesota.[15] Its proposed formula would include all the generation from carbon-free resources owned by Otter Tail and all the carbon-free generation Otter Tail purchases. More than Otter Tail's formula should be required. As the CEOs explained in our January 29 comments, this approach is inconsistent with the wording of law, which refers to "electricity generated from a carbon-free energy technology to provide to the electric utility's retail customers in Minnesota."[16]

If utilities like Otter Tail, with a significant share of their customers in other states, automatically attribute all the carbon-free generation they generate or procure to Minnesota, it obscures just how much carbon-emitting generation they are continuing to depend on to meet Minnesota's needs. For the sake of transparency, the first step in

[15] Otter Tail Power's initial comments, p. 3-4.
[16] Minn. Stat. § 216B.1691, subd. 2g; CEOs' initial comments, section I.

determining if a utility is complying with the CFS should be to accurately determine how much of the carbon-free power a utility generates or buys is truly attributable to Minnesota through granular and accurate tracking. Minnesotans deserve to know if their utilities are really transitioning to carbon-free power and how quickly. They also deserve to know to what extent their utility is relying on unbundled RECs, and indeed the law requires utilities to include this information in their preparedness reports to the Commission.[17] If a utility relies for compliance on carbon-free electricity from resources they own but which was generated to meet demand outside of Minnesota, it should be clear that the utility is relying on unbundled RECs for that share of its compliance, and it should specify the cost of those RECs (or the opportunity cost of not selling them) in its IRPs. Failure to assign a cost to that generation would make scenarios that rely on it appear less costly than they really are relative to resource scenarios that more meaningfully increase the percentage of carbon-free generation provided to Minnesotans.

Unlike Otter Tail, Xcel's formula for calculating CFS compliance does differentiate between carbon-free generation attributable to Minnesota and carbon-free generation attributable to its non-Minnesota customers, basing the differentiation on Minnesota's share of the utility's system-wide retail sales.[18] The CEOs appreciate Xcel's recognition that carbon-free generation attributable to other states should be distinguished from carbon-free generation attributable to Minnesota. However, as we discussed in our initial comments,[19] utilities should also distinguish between carbon-free generation attributable to Minnesota

[17] Minn. Stat. § 216B.1691, subd. 3(a)(9)(iv).
[18] Xcel comments at 2-3.
[19] CEOs comments, section I.

and carbon-free generation attributable to net market sales. It is not clear to us that Xcel has done so.

V. Trackable Certificates or Credits Should Be Required for All Generation Qualifying for CFS Compliance, Including from Facilities Deemed Partially Carbon-Free

Requiring utilities to retire RECs has proven a reliable means of ensuring compliance with the RES and of preventing double-counting, but not all carbon-free energy qualifies for RECs. The CEOs generally agree with the Department[20] and Xcel[21] that the Commission should require the use of Energy Attribute Certificates ("EACs") or Alternative Energy Credits ("AECs") to document compliance with the CFS when based on non-renewable sources, to the extent possible. Such certificates or credits will promote administrative efficiency and ensure no other entity is claiming that carbon-free generation. EACs or AECs are already emerging offerings, and if the Commission orders their use it will further encourage their emergence. Xcel states it will begin tracking AECs for nuclear energy in 2026.[22]

EACs or AECs should be required for nuclear generation and any other form of carbon-free generation that does not qualify for RECs,[23] as well as for generation from facilities that the Commission finds to be partially carbon-free under section 216B.1691, subd. 2d(b)(2)(i). The Commission should work with M-RETS to encourage the issuance of a partial EAC or AEC that reflects the Commission's decision regarding what share of that

[20] Department's initial comments, p. 6-7.
[21] Xcel's initial comments, p. 5
[22] *Id.*
[23] We note that geothermal generation is not listed as an eligible energy technology under section 216B.1691, subd. 1(b).

facility's generation can be deemed carbon-free under Minnesota law. (The criteria for deciding how much of a facility's output is carbon-free will be decided in the Commission's docket 24-352.) If this compliance option does not emerge, the Commission should otherwise ensure there is no double-counting of the carbon-free generation from partially carbon-free facilities, such as by requiring utilities to carefully track their generation and certify that no other parties are able to claim the carbon-free attributes of that generation.

CONCLUSION

The CEOs respectfully request that the Commission take the following actions for the reasons stated above and in our initial comments. For ease of reference, we repeat below our initial recommendations. We have added recommendations that are new to these reply comments, which are underlined.

1. The Commission should require utilities to include in the filings they make under Minn. Stat. § 216B.1691, subd. 3, the following information related to how they attribute carbon-free generation to Minnesota and on their system-wide carbon emissions:

   A) the utility's predicted and actual rates of compliance with the Minnesota CFS, based on the statutory formula below:

   $$\frac{\text{"electricity generated from a carbon-free energy technology to provide the electric utility's retail customers in Minnesota"}}{\text{"the electric utility's total retail electric sales to retail customers in Minnesota"}}$$

   The utility should precisely explain how the numerator and denominator were calculated, and it must demonstrate that it has only included in the numerator carbon-free electricity (and/or applicable RECs) generated or procured to provide to retail customers in Minnesota (and therefore, that it has excluded electricity that serves customers in other states, that supports net sales to regional markets, or that is sold to other parties that are not Minnesota retail customers);

B) the utility's predicted and actual percentage of carbon-free generation on a system-wide basis. If the percentage of carbon-free generation claimed under the Minnesota CFS calculation in item A above is different than the percentage of carbon-free generation on the utility's total system, the utility should identify and explain the difference;

C) the utility's predicted and actual estimated line losses, including the basis for the estimate and an explanation of how those line losses affect the calculation under item A above;

D) the utility's predicted and actual sales to parties other than retail customers in Minnesota, specifically identifying net annual sales to regional markets, sales to retail customers in other states, and any other sales to parties other than Minnesota retail customers. The explanation should state whether the utility has sold the RECs associated with any of these sales if they are of carbon-free power;

E) the utility's predicted and actual purchase of RECs or retention of RECs from generation provided to non-Minnesota retail customers or from excess sales to MISO or other regional markets, identifying which are bundled and which are unbundled. RECs attributable to electricity generated or procured by the utility should be listed as bundled RECs, and those purchased from other parties where the energy associated with the REC was not purchased should be listed as unbundled RECs;

F) the predicted and actual CO2 emissions associated with all electricity generated or procured to provide retail customers in Minnesota, including emissions associated with the excess power generated or procured to cover line losses.

2. The Commission should order hourly matching for CFS compliance for all electric utilities by 2035, and should rescind the four year shelf-life currently given to RECs.[24]

3. The Commission should order all integrated resource plans where the utility uses a capacity expansion model to incorporate hourly matching constraints in the models to demonstrate CFS compliance.

4. Even if the Commission does not require hourly matching for compliance, the Commission should require utilities to include in the filings they make under Minn. Stat. § 216B.1691, subd. 3, the following information related to the hourly-matching of carbon-free generation (with bundled RECs) and unbundled RECs used for CFS compliance:

[24] Fresh Energy does not join in this recommendation.

A) the utility's projected reliance on RECs purchased without purchasing the associated energy (unbundled RECs) to comply with the CFS through 2040;

B) a discussion of the expected hourly timing of anticipated carbon-free generation (with bundled RECs) and unbundled REC purchases through 2040;

C) an estimate of what the utility's projected compliance with the CFS would be through 2040 if RECs could only be claimed if they were time-matched;

D) for filings verifying compliance with a previous year's CFS, an estimate of the utility's carbon-free percentage if the RECs it purchased and generated had to be time-matched with the utility's demand on an hourly-basis; and

E) a discussion of any barriers to acquiring the information listed above and efforts the utility has made to obtain or estimate it.

5. The Commission should specify that RECs must be from carbon-free sources to be used for compliance with the CFS, and that no RECs from biomass or solid waste facilities may be used unless those facilities have been subject to a lifecycle analysis and had their carbon-free status approved by the Commission.[25]

6. The Commission should ask the Department to propose an update of the reporting template currently used to report RES compliance to reflect the new requirements of this order. The Department should consult with utilities in preparing this update and other stakeholders should be able to comment upon it once proposed.

7. The Commission should order utilities to submit their CFS filings made under Minn. Stat. § 216B.1691 into a single docket to maximize transparency and public participation regarding Minnesota's progress toward carbon-free electricity.

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[25] This requirement seeks to make the Commission's policy regarding unbundled RECs from biomass and solid waste facilities consistent with its policy regarding energy that utilities generate or procure from such facilities. It does not indicate a change in the CEOs' positions regarding whether or not such facilities qualify as carbon-free, as previously expressed in this docket.

8. The Commission should request the Department to conduct rigorous audits of utility CFS filings to ensure they are making sufficient progress toward compliance.

9. The Commission should specify that it will use the fuel mix of the MISO North subregion when calculating partial compliance credit for MISO purchases.

10. The Commission should require utilities to submit preparedness reports at least every two years.

11. The Commission should require trackable certificates or credits from all carbon-free technologies that do not qualify for RECs, including from facilities deemed partially carbon-free. Partially carbon-free facilities should be granted partial certificates or credits that reflect the Commission's decision regarding what share of the facility's generation is carbon-free.

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