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February 25, 2019

Mr. Daniel P. Wolf
Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
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VIA ELECTRONIC FILING

**Re: Minnesota Power's Answer to Clean Energy Organizations and Honor the Earth Petitions for Reconsideration
In the Matter of Minnesota Power's Petition for Approval of the EnergyForward Resource Package
Docket No. E-015/AI-17-568**

Dear Mr. Wolf:

Enclosed for filing in the above-referenced matter, please find Minnesota Power's Answer to the February 13, 2019, Petitions for Reconsideration filed by the Clean Energy Organizations and Honor the Earth.

If you have any questions regarding this filing, please contact me by email at dmoeller@allete.com or by phone at (218) 723-3963.

Respectfully submitted,

David R. Moeller

Enclosure
cc: Service List

**STATE OF MINNESOTA
BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION**

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Vice Chair
Commissioner
Commissioner
Commissioner

In the Matter of Minnesota Power's Petition
for Approval of the Energy*Forward* Resource
Package

Docket No. E015/AI-17-568

**MINNESOTA POWER'S ANSWER
TO PETITIONS FOR RECONSIDERATION**

February 25, 2019

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TABLE OF CONTENTS

	Page
I. INTRODUCTION	1
II. THE COMMISSION’S DECISION DOES NOT TRIGGER MEPA REVIEW	3
A. There Is No MEPA “Project” Before the Commission	3
B. MEPA Cannot Apply to a Wisconsin Power Plant.....	5
III. THE CEOS SEEK UNTIMELY IRP RECONSIDERATION	8
IV. THE COMMISSION’S APPROVAL IS CONSISTENT WITH LAW AND POLICY	9
A. Resource Planning Analyses Support the Commission’s Decision.....	10
B. Renewable Resources Were Appropriately Considered	12
1. Renewable Modeling Was Appropriate.....	12
2. Greenhouse Gas Analysis Was Appropriate.....	13
V. THE RECORD SUPPORTS THE COMMISSION’S DECISION	14
A. Limiting NTEC to 2025 Was Reasonable	15
B. The Modeling Assumptions Were Reasonable.....	16
C. The Modeling Reflects a Robust Range of Assumptions	17
VI. EXTRA-RECORD DATA DOES NOT UNDERMINE THE ORDER.....	19
A. RFP Results Elsewhere Do Not Address Minnesota Power’s Needs	19
B. Reference to “New Studies” Changes Nothing	22
C. Comparison of NTEC Costs With Dissimilar Plants is Not Meaningful.....	23
VII. CONCLUSION.....	24

I. INTRODUCTION

Pursuant to Minn. R. 7829.3000, subp. 4, Minnesota Power (or, the “Company”) respectfully submits this Answer to the February 13, 2019, Petitions for Reconsideration filed by the Clean Energy Organizations (the “CEOs”) and Honor the Earth (the “Petitions”). The CEOs and Honor the Earth each ask the Minnesota Public Utilities Commission (the “Commission”) to reconsider its January 24, 2019, Order Approving Affiliated-Interest Agreements with Conditions (“Order”).¹ The Petitions are largely repetitive of issues and arguments already considered and rejected by the Commission and should be denied.

The Commission’s Order is fully consonant with the record and applicable law and policy. Approval of the affiliated interest agreements was amply supported by the law and facts developed in this case. The Commission correctly relied on the analysis and recommendations from the Department of Commerce, Division of Energy Resources (the “Department”), which, in turn, reviewed the questions of need and reasonableness using well-settled analytical tools and methods and a broad range of possible future considerations. The Department’s review of the Company’s proposal was consistent with prior Commission treatment of resource selections and fully supports the Commission’s Order, particularly in light of the numerous conditions and customer protections that were imposed on Minnesota Power.

The Petitions reflect a transparent effort to kill the Nemadji Trail Energy Center (“NTEC”) 250 MW purchase via additional time-consuming, circular reviews creating delay beyond any possible viability. Despite the Commission’s long-standing policy to make resource decisions to accommodate a wide range of possible outcomes, the CEOs continue to cherry-pick specific modeling assumptions for complaint. Further, the CEOs repeat their capacity arguments, while

¹ *In the Matter of Minn. Power’s Petition for Approval of the EnergyForward Res. Package*, Docket Nos. E015/RP-15-690, E015/AI-17-568, ORDER APPROVING AFFILIATED INTEREST AGREEMENTS WITH CONDITIONS (Jan. 24, 2019) (“Order”).

ignoring the undisputed *energy* needs supporting this selection. Their narrow focus was specifically rejected, and nothing new was provided to override the Commission's approach.

Finally, it is important to acknowledge the real impacts of the delays engendered in the Petitions. While the CEOs prevaricate that they are not seeking delay for delay's sake,² the facts plainly speak otherwise. It has taken roughly three and a half years from the Company's last Integrated Resource Plan ("IRP") filing to achieve approval of the NTEC 250 MW purchase.³ Were the Commission to accept the CEOs' invitation for a do-over, there would be insufficient time to repeat this process to select and develop an alternate resource, saying nothing about the time necessary to construct a new resource by 2025.

In any case, the window to participate in the current cost-effective partnership with Dairyland Power Cooperative will close. This is a partnership that makes this specific cost-effective resource available at a shovel-ready site with multiple gas options and high voltage transmission within the vicinity. It creates benefits with a partner whose interests are aligned with customers'. The Commission should reject the invitation to walk away from this partnership.

Rather than countenancing further delay, the Commission should continue to rely upon the robust analyses detailing the need for and public interest in the 250 MW NTEC purchase. Because the Commission's Order complies with applicable law and is supported by the record in this proceeding, the Petitions should be denied.

² The CEOs assert that they "are not asking the Commission to direct the Company to engage in an unending series" of requests for proposal ("RFPs"), but rather "ask the Commission to take advantage of the significant amount of time remaining until the 2025 need for new capacity ..." Petition for Reconsideration of the Clean Energy Organizations at 36 (Feb. 13, 2019) ("CEO Petition").

³ The Company's last IRP was filed in September of 2015, with an Order issued in July of 2016. Notably, this was only the most recent of several IRPs in which Minnesota Power identified a future need for dispatchable capacity in the form of a combined-cycle facility. The Company issued a dispatchable capacity RFP in October of 2015, selected the South Shore bid, and negotiated throughout 2016 and into 2017. The Company's Petition for Approval of the *EnergyForward* Resource Package, including the NTEC purchase, was filed in July of 2017, and the Commission's Order Approving the Affiliated Interest Agreements with Conditions was issued on January 24, 2019. All told, it will be roughly three and a half years from the initial IRP filing to the close of the reconsideration process.

II. THE COMMISSION'S DECISION DOES NOT TRIGGER MEPA REVIEW

Honor the Earth and the CEOs seek reconsideration of the Commission's decision that the approval of the affiliate interest agreements for the NTEC 250 MW purchase does not require environmental review under the Minnesota Environmental Policy Act ("MEPA"). The Petitions have not, however, raised any new arguments or introduced any new evidence that would justify reconsideration or render MEPA applicable.

Fundamentally, this issue boils down to (i) whether approval of the affiliated interest agreements constitutes a "project" that is subject to MEPA review, and (ii) whether MEPA gives the Commission environmental review jurisdiction over a power plant that will be permitted, built, and operated solely within Wisconsin. As already detailed in the Commission's Order, the answer to both of these questions is "no" — the affiliated interest agreements do not constitute a project since they do not authorize construction, and Minnesota law does not extend to Wisconsin's environmental processes. Construction of the plant is subject to environmental review and permitting by Wisconsin and federal authorities and can be built only if *those* authorities permit it.

A. There Is No MEPA "Project" Before the Commission

Honor the Earth and the CEOs disagree with the Commission's interpretation of a "project" under MEPA. Pursuant to MEPA, "[w]here there is potential for significant environmental effects resulting from any major governmental action, the action shall be preceded by a detailed environmental impact statement prepared by the responsible governmental unit."⁴ "Governmental action" means "activities including projects wholly or partially conducted, permitted, assisted, financed, regulated, or approved by governmental units."⁵ As the Commission notes, "project" is

⁴ Minn. Stat. § 116D.04, subd. 2a.

⁵ Minn. R. 4410.0200, subp. 33.

defined as “governmental action, the results of which would cause physical manipulation of the environment, directly or indirectly.”⁶ Additionally, “[t]he determination of whether a project requires environmental documents shall be made by reference to the *physical activity* to be undertaken and not to the governmental process of approving the project.”⁷

The Commission correctly determined that the requested “government action” in this case is solely approval of affiliated interest agreements that will allow Minnesota Power to purchase energy and capacity from the NTEC facility, if it is permitted and built.⁸ Approval of these agreements will not grant permission to construct or operate the plant, and thus does not constitute a “project” or “government action” that “cause[s] the physical manipulation of the environment.”⁹

Honor the Earth and the CEOs argue that MEPA should be interpreted more broadly to apply to any agency actions that could indirectly allow physical impacts in the future, no matter how remote the relationship between the immediate government approval and the physical activity at issue. As such, they argue that any time any Minnesota regulatory approval is necessary, environmental review is required by MEPA if the approval could lead in any tangential way to any physical activity that could have environmental impacts. But that interpretation is not consistent with MEPA or the relevant case law.

MEPA only applies to the Commission’s approval of (1) “projects” that (2) include a “physical activity” that (3) would “cause physical manipulation of the environment, directly or indirectly.”¹⁰ As a result, MEPA environmental review applies only if the Commission is asked

⁶ Order at 5 (citing Minn. R. 4410.0200, subp. 65).

⁷ Order at 5 (emphasis added).

⁸ *Id.* at 6.

⁹ *Id.* (citing Minn. R. 4410.0200, subp. 65). *Accord* Minn. Stat. § 116D.04, subd. 2a (providing environmental review “[w]here there is potential for significant environmental effects *resulting from* any major governmental action, . . .”).

¹⁰ Minn. R. 4410.0200, subp. 33, 65.

to approve a “physical activity” that would have an environmental impact. For example, MEPA would apply to the siting, construction, and operation of a power plant in Minnesota, which are the physical activities to which the statute applies.¹¹ MEPA does not, however, apply to non-physical activity, such as approving a contract that does not, in itself, authorize construction.

Ultimately, the Commission correctly determined that “MEPA does not permit the type of bootstrapping analysis used by Honor the Earth and the CEOs.”¹² The affiliated interest agreements involve no “physical activity,” and are not “projects” subject to MEPA review.

B. MEPA Cannot Apply to a Wisconsin Power Plant

The Commission correctly found an alternative basis for denying MEPA review—MEPA’s reach does not extend into neighboring states, with only limited and inapplicable exceptions.¹³ Honor the Earth and the CEOs argue that this decision was erroneous because MEPA does not limit its application to inside Minnesota’s borders.¹⁴ But MEPA does not control the extent of its authority in other states; the United States Constitution and federalism principles do.¹⁵

The U.S. Constitution’s dormant Commerce Clause “precludes application of a state statute to commerce that takes place wholly outside of the state’s borders.”¹⁶ A state statute or regulation “is per se invalid when it has an ‘extraterritorial reach,’ that is, when the statute has the practical

¹¹ The Commission correctly notes that permission for these siting, construction, and operation activities must be obtained from Wisconsin regulators because the NTEC facility will be built entirely within Wisconsin. Order at 6.

¹² *Id.*

¹³ *Id.*

¹⁴ Honor the Earth Petition at 12-14; CEO Petition at 8. In addition, Honor the Earth’s argument that MEPA does not have a specific exemption for projects that are outside Minnesota, such that South Shore’s NTEC facility is covered, would lead to an absurd result in violation of Minn. Stat. § 645.17(1). *See* Minn. Stat. § 645.17(1) (“[T]he legislature does not intend a result that is absurd, impossible of execution, or unreasonable.”).

¹⁵ *See* Minn. Stat. § 645.17(3) (“[T]he legislature does not intend to violate the Constitution of the United States or of this state.”).

¹⁶ *Cotto Waxo Co. v. Williams*, 46 F.3d 790, 793 (8th Cir. 1995).

effect of controlling conduct beyond the boundaries of the state.”¹⁷ “This is true regardless of whether the commerce has effects within the state, and regardless of whether the legislature intended for the statute to have an extraterritorial effect[.]”¹⁸ “The critical inquiry is whether the practical effect of the regulation is to control conduct beyond the boundaries of the State.”¹⁹

The construction and operation of the NTEC facility will indisputably take place solely within Wisconsin. As a result, the dormant Commerce Clause prohibits the application of MEPA’s environmental regulations to the Wisconsin power plant. This is similar to the scenario addressed in the *Heydinger* case, which rejected extraterritorial reach of Minnesota environmental laws.²⁰

Notably, Honor the Earth and the CEOs address neither the dormant Commerce Clause issues nor MEPA applicability to a wholly out of state project; nor do they cite to any precedential case law that would support such an application. Instead, both parties claim that the case cited by the Commission—*Richland/Wilkin Joint Powers Authority v. U.S. Army Corps of Engineers*—does not actually stand for the proposition that MEPA cannot apply out of state.²¹ Examination of the decision demonstrates, however, that the Commission’s interpretation of that case is correct.

The *Joint Powers* court determined that application of Minnesota law to the North Dakota activity did not violate the dormant Commerce Clause under the limited facts of that case, because the overall project involved a large-scale flood diversion project that was being constructed across

¹⁷ *Id.* (citing *Healy v. Beer Inst.*, 491 U.S. 324, 336 (1989)); see also *North Dakota v. Heydinger*, 15 F.Supp.3d 891, 916-17 (D. Minn. 2014), *aff’d*, 825 F.3d 912, 921 (8th Cir. 2016) (striking down a Minnesota statute that would “regulate activity and transactions taking place wholly outside of Minnesota”).

¹⁸ *Heydinger*, 15 F.Supp.3d at 911 (citing *Edgar v. MITE Corp.*, 457 U.S. 624, 642 (1982) and *Healy*, 491 U.S. at 336).

¹⁹ *Healy*, 491 U.S. at 336.

²⁰ *Heydinger*, 15 F.Supp.3d at 910-917.

²¹ *Id.*; *Richland/Wilkin Joint Powers Auth. v. U.S. Army Corps of Engineers*, No. 13-2262, 2015 WL 2251481, *1, *12 (D. Minn. May 13, 2015), *aff’d*, 826 F.3d 1030 (8th Cir. 2016).

the Minnesota/North Dakota border.²² MEPA applied because there would be construction occurring in *both* Minnesota and North Dakota. The court merely recognized cross-border projects as a narrow exception to the dormant Commerce Clause, but reiterated that the dormant Commerce Clause does apply in cases where the project takes place wholly outside of Minnesota.²³

The CEOs also cite to *Environmental Defense Fund, Inc. v. Massey*, which explored the extraterritorial reach of the federal equivalent to MEPA, the National Environmental Policy Act (“NEPA”), to support that MEPA should apply to a Wisconsin project.²⁴ But *Environmental Defense Fund* addressed a completely different issue: whether NEPA could be applied to a U.S. company when most of its actions would occur within the country and the alleged extraterritorial effect would be in Antarctica—a continent without a sovereign and where the U.S. has a great deal of control.²⁵ Like in *Joint Powers*, *Environmental Defense Fund* allowed extraterritorial reach in large part because a significant amount of the conduct would occur in the United States. And Wisconsin does not lack a functional government. In short, the exceptions in these cases do not apply.

NTEC is not a cross-border project involving physical activity within Minnesota or a territory without a sovereign, and the dormant Commerce Clause analysis in *Heydinger* and the relevant Supreme Court cases controls. Requiring environmental review of a power plant that will be constructed and operated solely within Wisconsin would constitute an effort to control conduct beyond the boundaries of Minnesota, which *Heydinger* identifies as a violation of the dormant

²² *Joint Powers*, 2015 WL 2251481, at *1.

²³ *Id.* at *13 (citing *Cotto Waxo*, 46 F.3d at 793 (the dormant Commerce Clause “precludes application of a state statute to commerce that takes place wholly outside of the state’s borders”)); *see also Heydinger*, 15 F.Supp.3d at 916–17 .

²⁴ CEO Petition at 8 n.27.

²⁵ *Envtl. Def. Fund, Inc. v. Massey*, 986 F.2d 528, 529 (D.C. Cir. 1993).

Commerce Clause. The Commission’s decision that MEPA should not be applied to the NTEC facility is supported by applicable precedent and was the right outcome.

III. THE CEOS SEEK UNTIMELY IRP RECONSIDERATION

Next, the CEOs argue extensively that the Commission erred in approving the affiliated interest agreements without having identified the specific need in a prior IRP or undertaking a new IRP.²⁶ Because this issue was resolved in the Commission’s September 19, 2017 Order Referring Gas Plant for Contested Case Proceedings, and Notice and Order for Hearings (“Contested Case Order”), the CEOs’ request for reconsideration of that issue now is untimely, and would undermine the 17-month contested case process specifically authorized by the Commission.

The question of whether and how to proceed with this contested case was extensively debated.²⁷ The CEOs recommended that the Commission deny the Company’s request to address the *EnergyForward* Resource Package in a contested case proceeding and instead require a new IRP.²⁸ Separately, the Large Power Intervenors (“LPI”) opposed the Company’s proposed process.²⁹ The Commission conducted a hearing and rejected the CEOs’ and LPI’s positions.³⁰ No petition to reconsider that decision was filed and the contested case proceeded accordingly,

²⁶ CEO Petition at 9.

²⁷ On June 8, 2017, the Company filed a request for approval of the original *EnergyForward* Resource Package and an extension to file its next resource plan. The Commission then solicited comments on several issues, including whether to grant the extension request and whether the parties had sufficient information to determine whether a resource plan extension or contested case was appropriate. Contested Case Order at 1.

²⁸ *Id.* at 4. As Staff noted in Briefing Papers, “CEO prefers the Commission consider the proposed natural gas combined cycle unit alongside alternative resource options in the Company’s next resource plan to meet its updated energy and capacity needs.” *In the Matter of Minnesota Power’s 2015-2029 Integrated Resource Plan and Minnesota Power’s Petition for Approval of the EnergyForward Resource Package*, Docket Nos. E015/RP-15-690 and E015/RP-17-568, STAFF BRIEFING PAPERS at 9 (Aug. 30, 2017).

²⁹ LPI recommended that “the Commission deny the Company’s resource plan extension request, concluding that the appropriate process for evaluating specific wind, solar, and natural gas resources is in the context of a resource plan proceeding.” Contested Case Order at 4.

³⁰ *Id.* at 5. “After consideration of the issues raised by the parties, and the arguments presented at the Commission hearing,” the Commission referred the gas plant resource to the ALJ for contested case proceedings and granted the request for an extension of the Company’s next IRP filing. *Id.*

resulting in the robust record the Commission has before it now. It is inappropriate for CEOs to raise this issue now.

Nonetheless, Section III of the CEOs' Petition seeks to re-argue that "The Commission should not approve the construction and operation of [the NTEC facility] prior to identifying a specific need in an IRP."³¹ That entire Section is devoted to arguing the need for a "holistic approach" to determining the need for the NTEC facility, focusing on renewable resources, such that the Commission should not have allowed a "request to build a new fossil fuel resource to proceed outside of an IRP process."³² This argument is foreclosed by the Commission's Contested Case Order, which not only rejected delaying consideration of the gas facility until after the next IRP but also delayed the next IRP so that this contested case could proceed based on the prior IRP, as updated in this proceeding. As such, it is too late for the CEOs to suggest a new IRP is needed before the 250 MW NTEC purchase can be approved.³³

IV. THE COMMISSION'S APPROVAL IS CONSISTENT WITH LAW AND POLICY

The CEOs' argument that the Commission's analysis and decision were not sufficiently focused on resource planning is also incorrect based on the record. Specifically, the CEOs argue that the Commission failed to follow Commission IRP procedures and to appropriately consider the statutory preference for renewable resources contained in Minn. Stat. § 216B.2422, subs. 2 and 2c; § 216B.243, subd. 3a; and § 216B.2401.³⁴ These arguments are without merit.

³¹ CEO Petition at 9-18.

³² *Id.* at 9.

³³ See Minn. Stat. § 216B.27, subd. 1 (providing 20 days for any petition for reconsideration on a Commission decision); see also *In the Matter of Minn. Power's Revised Petition for a Competitive Rate for Energy-Intensive Trade-Exposed (EITE) Customers and an EITE Cost Recovery Rider*, No. A18-0382 (Minn. Ct. App. July 25, 2018) (dismissing appeal for failure to seek reconsideration of underlying Commission order).

³⁴ CEO Petition at 9-11.

A. Resource Planning Analyses Support the Commission’s Decision

First, the Commission’s decisions as reflected in its Order are consistent with applicable statutes and prior orders, including the Commission’s July 18, 2016 Order Approving Resource Plan with Modifications.³⁵ In the July 2016 IRP Order, the Commission authorized Minnesota Power to conduct a request for proposal (“RFP”) for a specific intermediate natural gas resource to be put in service in a specific timeframe, and then to bring the winning bid—the NTEC 250 MW purchase—forward for consideration.³⁶

The CEOs’ argument that the Commission deviated from past practice is demonstrably false. The Commission’s decision is fully consistent with IRP analyses and proceedings going back as far as 2009.³⁷ While the Company has always acknowledged this did not equate to approval of the resource itself, the July 2016 IRP Order explicitly permitted the RFP that resulted in the NTEC 250 MW purchase, which would have been meaningless if the resulting project could not be brought forward in future proceedings. Thus, it was appropriate for the Commission to refer Minnesota Power’s proposed gas plant to a contested case hearing.³⁸

Second, the record reflects significant resource planning analysis supporting the Commission’s determination. As the Commission concluded, “the Department evaluated reasonable ranges for key variables, and its Strategist results are sufficiently robust and reliable

³⁵ *In the Matter of Minn. Power’s 2016–2030 Integrated Res. Plan*, Docket No. E015/RP-15-690, ORDER APPROVING RESOURCE PLAN WITH MODIFICATIONS (July 18, 2016) (the “July 2016 IRP Order”).

³⁶ *In the Matter of Minn. Power’s 2010-2024 Integrated Res. Plan*, Docket No. E015/RP-09-1088, MINNESOTA POWER’S BASELOAD DIVERSIFICATION STUDY COMPLIANCE REPORT (Feb. 6, 2012); July 2016 IRP Order at 9; Contested Case Order at 5-6, 9.

³⁷ Ex. DER-8 at SRR-3 (Rakow Direct); Minnesota Public Utilities Commission Staff Briefing, Oral Arguments, and Deliberations, Tr. at 45:10-46:18 (Oct. 18, 2018) [hereinafter Oral Argument & Deliberations Tr.] (Dr. Rakow: “And basically every resource plan came to the same general conclusion, which is you should shut down the small, old coal plants . . . [and] replace them with natural gas, combined-cycle, wind, and then other things pop in and out of the mix.”).

³⁸ Contested Case Order at 5-6, 9.

for purposes of determining whether the NTEC energy purchase is needed and reasonable.”³⁹ Indeed, the Department ran over 300 scenarios varying numerous inputs including demand and energy forecasts, externality costs, new unit construction costs, coal prices, natural gas prices, wind and solar costs, access to and the price of spot market energy, the overall discount rate, and the level of energy efficiency.⁴⁰ As Dr. Rakow explained during the Commission’s deliberations:

The resource planning analysis involved myself running Strategist and analyzing if a combustion turbine would be better, if conservation would be better, wind and solar, would they be better, and so on. And there’s extensive information from the Department, from MP, and the Clean Energy Organizations all did modeling in this case. I’m not sure what more you would want on resource planning.⁴¹

In its Order, the Commission appropriately concluded “the NTEC purchase involves resource-planning and resource-acquisition considerations.” As a result, the Commission reasonably concluded that its “determination of whether the affiliated-interest agreements are ‘reasonable and consistent with the public interest’ is guided by relevant factors from Minnesota’s resource-planning and certificate-of-need statutes, Minn. Stat. §§ 216B.2422 and 216B.243.”⁴² As reflected in the Commission’s Order, the Commission evaluated the resource planning modeling conducted by the Department, which

consistently selected NTEC as least-cost under scenarios with various ranges of customer demand, energy storage, and demand response, and with or without environmental costs. Moreover, by comparing NTEC’s impact on overall system costs to that of wind and solar resources, the Department’s analysis met the renewable-resource requirements of Minn. Stat. §§ 216B.2422 and 216B.243, subd. 3a.⁴³

³⁹ Order at 21.

⁴⁰ See Oral Argument & Deliberations Tr. at 62:8-25 (Oct. 29, 2019).

⁴¹ Oral Argument & Deliberations Tr. at 43:11-19 (Oct. 18, 2018).

⁴² Order at 11.

⁴³ *Id.* at 21.

As such, the CEOs' characterization of the extensive modeling as deficient simply because it was not part of a separate resource plan filing is illogical and incorrect.

B. Renewable Resources Were Appropriately Considered

The CEOs also claim that the Department's analysis and the Commission's decision gave insufficient consideration to renewable alternatives and greenhouse gas emissions under Minn. Stat. § 216B.2422 and 216B.243, and 216H.02.⁴⁴ These claims are incorrect.

1. Renewable Modeling Was Appropriate

First, the CEOs argue that the Department's analysis is insufficient to meet the statutory obligation to consider renewable alternatives, because "the model would have selected more wind and perhaps more solar if the Department had allowed it to do so."⁴⁵ However, the record supports the Commission's determination that the extensive modeling undertaken by the parties, and particularly the Department, satisfied the requirements of Minn. Stat. §§216B.2422 and 216B.243. Consistent with long-standing Commission policy and precedent, the Department's modeling included a variety of assumptions for the future, including reasonable assumptions pertaining to the amount and cost of generation alternatives and the feasibility of a broad range of futures. It was entirely appropriate for the Department to include reasonable assumptions in its model.

The record shows that adding significantly more wind not only fails to meet the Company's energy needs, but could result in many hours of the year when the available wind generation far exceeds Minnesota Power's hourly demand without meeting its energy needs at other times. These periods of over-production would mean that excess energy would be dumped into the MISO market (likely for little compensation) or even curtailed, creating an inefficient set of resources for customers. With the addition of another 250 MW of wind to the Company's current 600 MW of

⁴⁴ CEO Petition at 11-12.

⁴⁵ CEO Petition at 10-11.

variable wind generation, Minnesota Power's energy position could vary up to 850 MW in an hour, depending on weather conditions. Drastic changes in wind energy can cause rapid decreases and increases in energy, long periods of time where no or too much energy is available,⁴⁶ the need to dump excess energy into the MISO market for little compensation, and days where there are multiple peaks and valleys in energy production.⁴⁷

With respect to the evaluation of expansion plan alternatives meeting 50 and 75 percent of all energy needs through a combination of conservation and renewable energy resources, Minnesota Power included both a 75 percent renewable capacity portfolio and 50 percent renewable capacity portfolio in its swim lane analysis utilizing 1,950 MW and 1,350 MW of wind additions respectively.⁴⁸ And while the Commission found the Department's modeling analysis independently sufficient to establish the need for the NTEC purchase,⁴⁹ the Company's analysis provides further record support for the Commission's determination.

2. Greenhouse Gas Analysis Was Appropriate

Second, the CEOs' claim that the Commission failed to consider achievement of greenhouse gas reduction goals and impacts resulting from reduced exposure to fuel price volatility in accordance with Minn. Stat. §§ 216B.2422, subd. 4 and 216H.02,⁵⁰ is contrary to the record. The Commission fully considered the impact of its decision on greenhouse gas reduction goals

⁴⁶ Ex. MP-13 at 22 (Pierce Direct); Ex. MP-19 at 7-8 (Brick Direct); Oral Argument & Deliberations Tr. at 137-38 (Oct. 18, 2018) (Dr. Rakow: "Wind generally looks the exact opposite. It's high production at 3:00 in the morning, it generally declines as you go throughout the day and then it ramps up again in the evening. And so there are limits to how much wind the model will take because there's only so much demand for energy at 3:00 in the morning."); *see also* Minnesota Power's Initial Post-Hearing Br. at 19-20.

⁴⁷ Ex. MP-13 at 58 (Pierce Direct).

⁴⁸ Ex. MP-16 at 59 (Palmer Direct).

⁴⁹ Order at 21 ("And since the Department's analysis independently established a need for the NTEC purchase, the Commission does not reach the issue of whether the Company's Strategist modeling was sufficient.").

⁵⁰ CEO Petition at 11-12.

and impacts related to fuel price volatility;⁵¹ it also considered other factors required under Minn. Stat. § 216B.2422, subd. 4 that the CEOs wholly ignore. In particular, the Commission considered impacts on (1) local and regional grid reliability; (2) the utility and ratepayers resulting from the intermittent nature of renewable energy facilities, including the costs of purchasing wholesale electricity in the market and providing ancillary services; and (3) portfolio diversification.⁵² The record and the Commission’s Order reflect that the Commission fully considered each of these factors, and reasonably determined that the NTEC purchase is needed and reasonable.⁵³

V. THE RECORD SUPPORTS THE COMMISSION’S DECISION

The CEOs raise a variety of additional, unfounded concerns about the Commission’s Order and the underlying record bases for the decision. Specifically, the CEOs argue that the Order should be reconsidered because the decision was based upon the incorrect premises that (1) “the Department appropriately limited the model’s selection of NTEC to 2025 because there is no evidence in the record to suggest that NTEC is available in any other year”;⁵⁴ and (2) “the CEOs’ preferred assumptions are within the range of forecast contingencies evaluated by the Department,

⁵¹ Order at 12, 14, 24-25 (requiring next resource plan to include a detailed plan to evaluate the early retirement of its remaining coal-fired generators); Oral Argument and Deliberations Tr. at 62:8-63:5 (Oct. 29, 2019) (“The Department ran over ... 300 scenarios varying numerous inputs, such as demand end energy forecasts, the cost of externalities using the Commission’s updated CO2 costs based on the societal cost of carbon, new unit construction costs, coal prices, natural gas prices, cost of new wind and solar, access to and the price of spot market energy, the overall discount rate, and the level of energy efficiency. Strategist consistently selected three to four hundred megawatts of wind, zero to one hundred of solar, and a 250 megawatt natural gas-fired CC unit as a package. In addition, the package is needed to replace energy lost due to the removal of about 700 megawatts of coal from MP’s system by 2025, which would present significant emissions reductions for Minnesota stemming from those plants. The Department believes that the NTEC . . . is consistent with statewide reduction goals for . . . greenhouse gas emissions.”).

⁵² Minn. Stat. § 216B.2422, subd. 4.

⁵³ Order at 20-21 (“Having carefully reviewed the record, the Commission finds that the NTEC purchase, as proposed, is needed and reasonable based on all relevant factors, including those identified by the Commission in its Referral Order and by the ALJ in her Second Prehearing Order.”).

⁵⁴ CEO Petition at 18-19.

and so correcting the issues the CEOs identified with the Department's modeling would not change the outcome." The record, however, fully supports the Commission's decision.

A. Limiting NTEC to 2025 Was Reasonable

First, the CEOs argue (as they also did in the resource-planning segment of their Petition) that the modeling analysis was improperly constrained because the NTEC 250 MW purchase was made available only in 2025 instead of allowing it to be available at any time during the modeling period.⁵⁵ As reflected in the record, however, the NTEC 250 MW purchase was evaluated as a project-specific option that, by its real-world terms, is only available in 2025.⁵⁶ There is nothing in the record to suggest that this project (including its unique partnership arrangement and economies of scale due to the participation of Dairyland) would be available in any year other than 2025, as set forth in the underlying agreements and established on the record.

Moreover, the CEOs' criticisms of the Department's modeling assumptions were rejected because they lack merit and would not change the outcome.

The ALJ relied on the CEOs' claim that the Department limited its model's selection of an NTEC-like resource to 2025, prejudging the timing of the resource need. However, the Department made a generic 200 MW combined-cycle resource available for selection in each year of the planning period. What was limited to 2025 was the selection of a combined-cycle resource with NTEC's specific characteristics. This was reasonable: there is nothing in the record to suggest that NTEC is available in any other year.⁵⁷

It would simply not be reasonable to manufacture an assumption that the NTEC deal would be available in other years when there is no evidence of this.

Similarly, the CEOs' suggestion that the generic combined cycle should have been given the same cost characteristics as NTEC is also misplaced. The CEOs have pointed to no record

⁵⁵ CEO Petition at 24.

⁵⁶ Oral Argument & Deliberations Tr. at 129:23-130:6 (Oct. 18, 2018); Department's Exceptions at 9.

⁵⁷ Order at 21.

evidence that would suggest that Minnesota Power could enter into a deal for another combined cycle that would have all of the benefits associated with its advantageous partnership with Dairyland.⁵⁸ In fact, alternatives were presented in the RFP and rejected as less favorable.

B. The Modeling Assumptions Were Reasonable

The CEOs also continue to argue that the modeling was flawed in a number of respects. None of these criticisms justify reconsideration.

First, the CEOs' complain that the modeling did not assign a capacity value to wind. This again goes to the CEOs' focus on capacity, without acknowledging the identified energy need. The NTEC 250 MW purchase was selected by the Department's model in virtually every case because its "energy output reduces overall societal costs, not because NTEC is filling a capacity need."⁵⁹ If capacity was the driving factor, then Strategist would have selected a peaking unit.⁶⁰ As a result, assigning a higher capacity value to wind would not have affected the outcome.

Second, although the CEOs take issue with the conclusion that NTEC will reduce ratepayer exposure to spot market price risk,⁶¹ the Commission reasonably concluded, based on the record, that "[e]ven if Minnesota Power experiences no capacity needs, it will be purchasing energy from the MISO market, and NTEC provides a hedge against spikes in market prices and reduces overall costs by providing an economic source of energy."⁶² This conclusion is supported by the Department's analysis of spot market risk exposure.⁶³ Further, the record reflects that NTEC's

⁵⁸ Oral Argument & Deliberations Tr. at 129:23-130:6 (Oct. 18, 2018).

⁵⁹ Department's Exceptions at 12 (citing Ex. DER-12 at 42 (Rakow Surrebuttal)).

⁶⁰ Department Initial Br. 19-20 (emphasis added) (internal citations omitted).

⁶¹ CEO Petition at 26.

⁶² Order at 21.

⁶³ Ex. DER-11 at 53 (Rakow Surrebuttal).

risk mitigation value would increase significantly if volatility in the spot market increases or additional dispatchable capacity, such as Boswell 3 or Boswell 4, is removed from the system.⁶⁴

C. The Modeling Reflects a Robust Range of Assumptions

Finally, the CEOs argue reconsideration is warranted based on other modeling deficiencies, including that the modeling failed to appropriately consider additional demand response or energy storage and failed to reflect all of the CEOs' identified inputs in combination.⁶⁵ However, the Commission fully considered the CEOs' criticisms, determining that they do not change the conclusion that the NTEC purchase is reasonable.⁶⁶

Resource-planning assessments are necessarily imprecise; they involve evaluating multiple future scenarios to account for uncertainty. In this case, the Department's modeling captured the effect of a wide range of both demand response and energy efficiency by varying customer demand and energy efficiency levels. In other words, even assuming the CEOs are correct that greater levels of demand response and energy efficiency should have been evaluated, their preferred assumptions are still within the range of forecast contingencies evaluated by the Department.⁶⁷

The Department also expressly addressed the CEOs' alternative modeling assumptions, highlighting that the assumption of a one-way market (i.e., purchases allowed and sales disallowed) would almost certainly bias the results and explains one of the potential factors to why CEOs' modeling did not select NTEC while the Department's models consistently did.⁶⁸

⁶⁴ Oral Argument & Deliberations Tr. at 192:12-194:2 (Oct. 18, 2018).

⁶⁵ CEO Petition at 21-22.

⁶⁶ Order at 21 ("The CEOs criticized several of the assumptions the Department used in its modeling. However, to the extent these criticisms have merit, correcting the assumptions would likely not have changed the outcome. The Commission therefore disagrees with the ALJ's conclusion that the Department's modeling was not sufficiently robust or reliable for purposes of determining whether the NTEC purchase is needed and reasonable.").

⁶⁷ *Id.*

⁶⁸ Oral Argument & Deliberations Tr. at 109:6-15 (Oct. 18, 2018) (Dr. Rakow: "Oh, boy. That would be a significant difference because the Department allows the market to be on or off. So you either can't buy it and sell or you buy and sell both. And that would be a significant difference. Because now NTEC cannot benefit from selling into the market, but not having NTEC can benefit from buying from the market and not having to do more expensive energy. So that is a significant bias in the modeling. Either that or we have one-way transmission built somewhere.").

The level of false precision demanded by the CEOs is neither required nor even preferable in resource planning. Rather, the forecast bands and contingencies used by the Department are superior to making specific narrow changes to the inputs, such as energy storage or demand response, urged by the CEOs. The record supports the Commission’s conclusion that the Department’s modeling approach is reasonable, and underscores why the isolated and specific criticisms raised by the CEOs (but only in one direction) are unrealistic and unhelpful.

Further, neither Minnesota Power nor the Department is required to prove a negative by undertaking the impossible task of analyzing every conceivable scenario in order to show that a potentially superior option does not exist under a single future.⁶⁹ Instead, the parties examined practical and available alternatives across a reasonable range of potential future scenarios to determine which resources most economically meet its forecasted energy and capacity needs across a broad range of the modeled outcomes.⁷⁰ This record certainly provided a sufficient evidentiary basis for the Order.

Nor is the CEOs’ modeling sufficiently robust to support any contrary conclusions. The CEOs admit that their “modeling is not intended to substitute for the full analysis that should precede a size, type, and timing decision,” but instead was “merely intended to show that a reasonable set of alternatives can provide a very different picture than that painted by the Company.”⁷¹ The CEOs did not comprehensively test the effects of changing individual input values, such as the capacity value for wind, on the resources selected by the model. Instead, the

⁶⁹ Minn. R. 7851.0110; *see also In re Application of the City of Hutchinson for a Certificate of Need to Construct a Large Nat. Gas Pipeline*, No. A03-99, 2003 WL 22234703, at *7 (Minn. Ct. App. Sept. 23, 2003).

⁷⁰ *See In the Matter of the Petition of Xcel Energy for Approval of the Acquisition of Wind Generation from the Co.’s 2016-2030 Integrated Res. Plan*, Docket No. E002/M-16-777, ORDER APPROVING PETITION, GRANTING VARIANCE, AND REQUIRING COMPLIANCE FILING at 7 (Sept. 1, 2017).

⁷¹ Ex. CEO-18 at 26 (Sommer Surrebuttal).

CEOs developed one “future” that altered the majority of the modeling inputs at the same time, and utilized only three contingencies.⁷² Additionally, as discussed above, the CEOs modeling contained flaws such as one-way markets that significantly and artificially biased the results against NTEC. As a result, it would be inappropriate to rely on the CEOs’ single possible future in making a broad-based planning decision.

VI. EXTRA-RECORD DATA DOES NOT UNDERMINE THE ORDER

The CEOs next identify several “new” pieces of information they claim undermine either the Department’s modeling or the Commission’s decision. The CEOs’ effort to add to the record at this late date undermines the purpose of the in-depth contested case process, in which all evidence is reviewed from multiple perspectives, and presents evidence that is not ultimately relevant to the resource need being addressed in this proceeding.

A. RFP Results Elsewhere Do Not Address Minnesota Power’s Needs

The CEOs argue that the results of a November 1, 2018 Northern Indiana Public Service Company (“NIPSCO”) all-source RFP and a December 28, 2017 update to an all-source RFP issued by Public Service Company of Colorado (“PSCo”) demonstrate that price declines for wind, solar, and battery storage undermine the Department’s assumed wind prices in its own modeling.⁷³ The CEOs then, by their own admission, provide “selected, key results”⁷⁴ from the NIPSCO and PSCo RFPs and attempt to compare them to the Department’s analysis to show that the 250 MW NTEC purchase may not be the least cost resource.

In addition to being selective, untested, and beyond the record, the CEOs’ analysis is flawed in several respects. First, the purpose of the NTEC purchase is to address a growing *energy*

⁷² Ex. CEO-16 at 20-21, 26-27 (Sommer Direct).

⁷³ CEO Petition at 29.

⁷⁴ *Id.*

need when wind and solar energy are not available. The CEOs' analysis of these RFP results shows a comparison to NTEC pricing, without addressing the need to pair dispatchable capacity with renewable resources—a pairing the Company is making with the overall *EnergyForward* Resource Package. As the Department explained:

CEO appears to frame the issue in this matter as how the proposed NTEC compares to potential renewable resources. But as the Department stated in the opening paragraphs of its Initial Brief, Strategist, a resource planning model, consistently picked renewable resources and a 250 MW natural gas plant. Again, the Department ran over 300 scenarios varying numerous inputs such as the demand and energy forecasts; the cost externalities, CO₂ costs, new unit construction costs, coal prices, natural gas prices, cost of new wind and solar; access to and the price of spot market energy; the overall discount rate; and the level of energy efficiency. Strategist consistently selected 300 to 400 MW of wind, zero to 100 MW of solar, and a 250 MW natural gas fired, combined cycle unit as a package. The package is needed to replace the energy lost due to MP removing about 700 MW of coal units from its system by 2025.⁷⁵

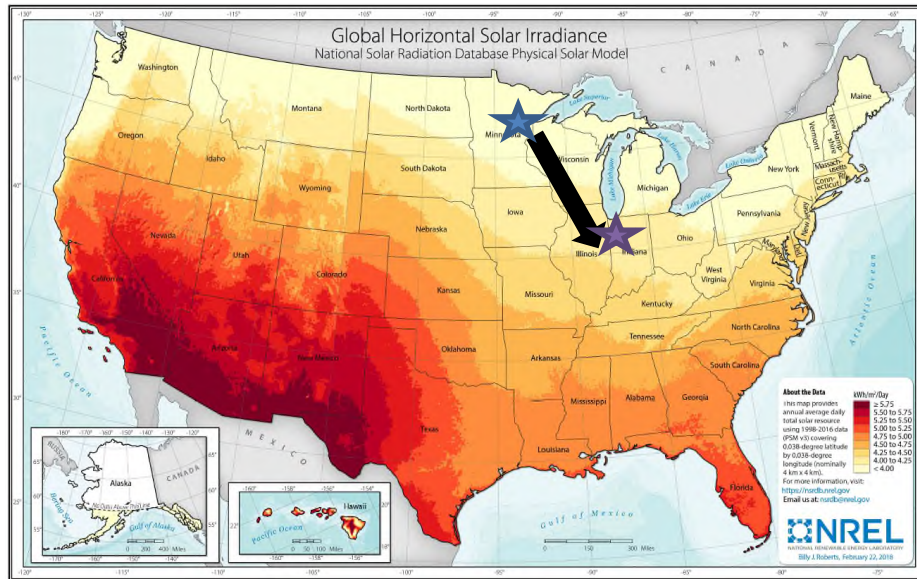
Second, the CEOs' effort to introduce these RFP results in reconsideration underscores why such efforts do not present a clear picture of the data being presented. New data will always arise after Commission decisions are made; however, pricing data will vary depending on the point in time, resulting in an infinite loop of analyses that paralyze a final decision. Perhaps more importantly, the contested case process, unlike reconsideration, offered all parties the chance to offer data into the record and for other parties to fully address it in a way that gives the Commission a clear picture of the weight to be given such data. Here, CEOs give no such context and, as a result, their analysis fails to address the extent to which the data is actually relevant.

As a specific example, the NIPSCO and PSCo RFP results do not represent the cost of renewable generation or the associated transmission costs available in Minnesota. Colorado and Indiana are located farther south than Minnesota, such that their solar irradiance is greater—

⁷⁵ Department Reply Br. at 13-14 (internal citations to internal briefing and Dr. Rakow's Direct Testimony and Surrebuttal Testimony omitted).

especially when compared to Northern Minnesota, as demonstrated in Figure 1, below. Such considerations factor into the pricing of solar resources.

Figure 1



Similarly, the comparison the CEOs draw does not consider other factors that may be different for either solar or wind resources, or in different regions, such as local labor rates, land value or availability, state pricing and tax credits, local developer economics, and the like. As such, they offer little real bases for comparison.

Third, even if the costs were known to be stated on the same bases, the CEOs' Petition misrepresents how the NIPSCO and PSCo RFP costs compare to the Department's modeling. Specifically, the CEOs do not provide time periods in their Figures 1 and 2, but simply compare NIPSCO and PSCo prices without operational timeframes to specific Department pricing timeframes in an effort to make it appear that the RFP numbers are lower than the Department's.⁷⁶ But when data from 2022 is compared, it becomes clear that the Department's modeled wind costs

⁷⁶ CEO Petition at 31.

(\$34/MWh) are actually *lower* than the NIPSCO RFP costs (\$38.11/MWh) for the same year. In addition, the Department modeled a range of wind cost. Ultimately, the Department’s model presents more reliable data regardless of whether it is higher or lower than the NIPSCO and PSCo results, and ultimately supports the outcome of this proceeding.

B. Reference to “New Studies” Changes Nothing

The CEOs also cite two 2018 studies—a Rhodium Group study on actual United States-wide CO₂ emissions in 2018, and the 2018 Minnesota’s Smarter Grid study by Vibrant Energy—for the proposition that Minnesota Power should not be permitted to replace retiring coal-fired plants with other dispatchable capacity.⁷⁷ However, neither of the referenced studies undermine the Commission’s thorough consideration of Minnesota Power’s overall energy mix well into the future, including consideration of achieving Minnesota’s emission reduction goals.⁷⁸ Reliance on these studies also ignores Minnesota Power’s obligation to plan for and serve customer needs. Additionally, the CEOs utilize these studies solely to support their flawed premise that the energy sector, and Minnesota Power specifically, should bear a disproportionate share of the cost toward reaching Minnesota decarbonization goals, regardless of the need for dispatchable energy and capacity to meet customer needs. The Commission reasonably concluded that the *EnergyForward* Resource Package will help meet state carbon reduction goals.⁷⁹

Moreover, the studies the CEOs cite do not support their proposition that Minnesota Power should not add dispatchable natural gas generation, despite reducing its own CO₂ emissions by 40 percent by 2030, because broader carbon goals may not be met in 2050. The Rhodium Group study discusses an increase in actual CO₂ emissions in 2018 as compared to the prior year, for all

⁷⁷ CEO Petition at 33.

⁷⁸ Order at 24-25.

⁷⁹ *Id.* at 24.

of the United States. It does not address long-term trends or Minnesota's or Minnesota Power's performance. It also does not specifically identify the causes of this 2018 increase, which could include increased demand (2018 was the first of the last several years in which United States power consumption increased meaningfully), or the greater need to use dispatchable resources as compared to prior years, which would underscore the importance of resources like the NTEC facility. Additionally, the Rhodium Group study explicitly notes that it does not expect a repeat of 2018 in 2019.⁸⁰ It therefore does not add to the CEOs' premise or provide meaningful insight.

Likewise, the Minnesota Smarter Grid study states that natural gas would still play an important role in a decarbonized future.⁸¹ And in reaching this conclusion, the study highlights a base case based on 2017 National Renewable Energy Laboratory cost data, and then only adds a sensitivity analysis for *high* natural gas costs—with no alternative for lower natural gas costs.⁸² As such, the study fails to consider the breadth of possible futures, underscoring the importance of more robust analyses, as conducted by the Department and the Company.

Taken together or individually, these studies do not add to the Commission's evaluation of the need for and societal benefit of the 250 MW NTEC purchase.

C. Comparison of NTEC Costs With Dissimilar Plants is Not Meaningful

Finally, the CEOs suggest that Xcel Energy's recent request for approvals related to its Mankato Energy Center ("MEC") I acquisition and MEC II expansion project call into question the reasonableness of the NTEC pricing. While the CEOs portray the nature of MEC I and MEC II, the Riverside Energy Center, and the Fox River Energy Center, as comparable to NTEC,⁸³ in

⁸⁰ CEO Petition at Appendix C, p. 2-3.

⁸¹ *Id.* at Appendix B, p. 3.

⁸² *Id.* at Appendix B, p. 8-9 (showing scenarios performed).

⁸³ CEOs' comparison does not reference the cost of Xcel Energy's planned Sherco natural gas facility, which was approved via 2017 legislation.

reality the facilities are very different. Riverside Energy Center and Fox Energy Center each consist of a package of an existing combined cycle with an expansion. Further, MEC I was built in 2006,⁸⁴ versus a 2025 in-service date for the NTEC combined-cycle facility. Likewise, MEC II is not a new combined-cycle facility like NTEC, but rather “expands the existing MEC I facility by 345 MW via the addition of a new combustion turbine and steam generator that is scheduled to reach commercial operation by June of 2019.”⁸⁵ Of course, adding on to an existing facility will have a different cost profile than the current greenfield proposal. As a result, the costs shown in the CEOs’ reconsideration petition are a blend of the purchase cost of an existing, older resource and the cost of a new expansion of that resource, thereby reducing the overall cost of the package.

In contrast, the NTEC combined cycle proposal is a new resource that will be in service in 2025. The NTEC 250 MW purchase was also the result of a dispatchable capacity RFP and partnership with Dairyland. That RFP showed higher costs for resources that were actually available to Minnesota Power and comparable in nature. Consequently, the CEOs’ claim that NTEC’s cost may not be reasonable because they are higher is based on an invalid comparison of “apples to oranges,” and does not give cause for reconsideration.

VII. CONCLUSION

Based on the foregoing and the record developed in this proceeding, no reconsideration of the Commission’s January 24, 2019 Order is warranted. The Commission’s Order is supported by applicable law and the record in this case.

⁸⁴ *In the Matter of the Petition by N. States Power Co. d.b.a Xcel Energy for Approval of the Acquisition of the Mankato Energy Center (MEC)*, Docket No. E002/PA-18-702, PETITION FOR APPROVAL OF THE MANKATO ENERGY CENTER at 10 (Nov. 27, 2018).

⁸⁵ *Id.* at 8.

Dated this 25th day of February, 2019.

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In the Matter of Minnesota Power's Petition for
Approval of the Energy*Forward* Resource Package

Docket No. E-015/AI-17-568

CERTIFICATE OF SERVICE

I, Kristin M. Stastny, hereby certify that on the 25th of February, 2019, on behalf of Minnesota Power, I electronically filed a true and correct copy of the enclosed Answer, on www.edockets.state.mn.us. Said documents were also served via U.S. mail and electronic service as designated on the attached service list.

Dated this 25th day of February, 2019.

/s/ Kristin M. Stastny
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