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Minn. R. Civ. App. P. 136.01, subd. 1(c).*

**STATE OF MINNESOTA
IN COURT OF APPEALS**

A19-0688

A19-0704

In the Matter of Minnesota Power's Petition for
Approval of the EnergyForward Resource Package.

Filed August 23, 2021

Affirmed

Bjorkman, Judge

Public Utilities Commission

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

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Considered and decided by Bjorkman, Presiding Judge; Hooten, Judge; and Klaphake, Judge.*

NONPRECEDENTIAL OPINION

BJORKMAN, Judge

On remand from the Minnesota Supreme Court, relators reiterate their challenge to an order by respondent-commission approving respondent-utility's affiliated-interest agreements related to a proposed natural-gas power plant. Relators argue that substantial evidence does not support the commission's determinations that (1) the power plant is needed and (2) the power plant serves the public interest better than a renewable-resource alternative. We affirm.

FACTS

In July 2017, respondent Minnesota Power petitioned respondent Minnesota Public Utilities Commission (the commission) for approval of its *EnergyForward* Resource Package. The petition points to capacity and energy¹ needs contemplated in Minnesota Power's commission-approved 2015 integrated resource plan and proposes to add new wind, solar, and natural-gas generation resources. The focus of this appeal is the natural-gas resource—a 525 MW natural-gas combined-cycle power plant in Superior, Wisconsin, known as the Nemadji Trail Energy Center (NTEC). Minnesota Power seeks to construct

* Retired judge of the Minnesota Court of Appeals, serving by appointment pursuant to Minn. Const. art. VI, § 10.

¹ Capacity and energy are related but distinct concepts. Capacity is a generator's maximum output, measured in megawatts (MW). Energy is the amount of electricity that a generator produces over a period of time, measured in megawatt-hours (MWh).

NTEC, operate it, and purchase half of its capacity and associated energy, through agreements with its Wisconsin affiliate, South Shore Energy, LLC. Because it is a public utility, Minnesota Power must obtain the commission's approval of the affiliated-interest agreements. Minn. Stat. § 216B.48, subd. 3 (2020).

The commission approved Minnesota Power's proposed wind and solar resources and referred the NTEC affiliated-interest agreements for a contested-case proceeding before an administrative-law judge (ALJ). The commission required Minnesota Power to show that NTEC is "needed and reasonable," providing that the determination of need and reasonableness would be based on "all relevant factors," including (1) "[a]n updated forecast of demand"; (2) costs, "including socioeconomic and environmental costs"; and (3) alternatives to some or all of NTEC's energy and capacity. It also incorporated the "renewable resource requirements" of the resource-planning and certificate-of-need statutes, Minn. Stat. §§ 216B.2422, .243, subd. 3a (2020).

During the contested case, the ALJ received thousands of pages of testimony and documentary evidence. Minnesota Power presented evidence that it will experience an increasing need for capacity and energy in the mid-2020s, substantially because its coal-fired generators are being retired. Using the Strategist computer program, Minnesota Power modeled hundreds of scenarios to assess the suitability of different resource alternatives for meeting those projected needs. And it asserted that NTEC "is the best and least cost resource option for meeting its future energy needs in the mid-2020s because NTEC was chosen in the vast majority of [modeled] scenarios." Minnesota Power also presented evidence that its growing reliance on wind generation creates a need for

“dispatchable capacity and flexible energy to mitigate and balance exposure to energy markets”—a need that NTEC addresses.

The Minnesota Department of Commerce (the department) also analyzed Minnesota Power’s projected capacity and energy needs and used Strategist to model resource alternatives for meeting those needs. The department’s 300 modeled scenarios consistently identified NTEC as the least-cost option. And the department agreed that NTEC would provide a dispatchable resource that could mitigate exposure to price spikes.

In response, a group of “clean energy organizations”² challenged the inputs that Minnesota Power and the department used in their modeling. The group took particular aim at the inputs used with respect to when NTEC would be available as a resource, the cost of wind and solar resources, and the prospects for enhancing load management³ and energy efficiency.

The ALJ also received more than 1,500 written public comments. Most commenters opposed NTEC, citing environmental concerns. Relator Honor the Earth submitted comments opposing NTEC and asserting that an environmental impact statement (EIS) was needed before the commission could approve the NTEC affiliated-interest agreements.

The ALJ issued a report detailing and analyzing the evidence, the parties’ arguments, and the public comments. She declined to rule on the need for an EIS,

² The group included relators Minnesota Center for Environmental Advocacy and Sierra Club.

³ Load management, or demand response, refers to incentive payments or other price signals that influence customer usage. For example, customers may agree to reduce their usage at times of high demand in exchange for a discounted electricity rate.

reasoning that it was outside the scope of the contested case. But she agreed with the clean energy organizations that Minnesota Power's and the department's modeling inputs were unreasonable. She therefore concluded that Minnesota Power failed to demonstrate that NTEC is needed to address anticipated shortfalls in capacity, energy, or dispatchability, and recommended that the commission not approve the affiliated-interest agreements. But she noted that, if the commission concluded NTEC is "needed and reasonable," she would recommend that the commission find the affiliated-interest agreements are in the public interest.

The parties filed written exceptions to the ALJ's report. In its exceptions, the department urged the commission to reject the ALJ's assessment that its modeling was unreasonable. It explained that "certain individual inputs" in its modeling, such as those for load management, could have been "improved" but would not have materially affected the results because the results favoring NTEC did not substantially rely on those particular inputs. It emphasized that developing a range of inputs to address the uncertainties of resource planning is more important than any single input. But it also explained its reasons for selecting the challenged inputs—it treated NTEC as available in 2025 because that is the proposed timeline for that specific resource but also modeled a similar generic resource in other years; it accounted for a range of load-management possibilities by using a spectrum of demand-forecast inputs; and it accounted for a range of energy-efficiency possibilities in a similar manner. Minnesota Power filed similar exceptions, urging that its own analysis and that of the department demonstrate that NTEC is needed and reasonable.

Honor the Earth filed a petition requesting that an environmental assessment worksheet (EAW) be prepared before the commission decided whether to approve the affiliated-interest agreements.

The commission conducted a two-day hearing on whether to order an EAW and whether to approve the affiliated-interest agreements. It also independently examined the record and evaluated the parties' exceptions. In a written decision, the commission denied the EAW petition and approved the affiliated-interest agreements with conditions.

Regarding the agreements, the commission explained that it concurred in the ALJ's findings "as modified" by the department's exceptions. Specifically, the commission found that the department's analysis was reasonable and "sufficiently robust . . . for purposes of determining whether the NTEC energy purchase is needed and reasonable." And it relied on that analysis to conclude that "NTEC, in conjunction with the [wind and solar] elements of the Energy*Forward* resource package, is a cost-effective resource for meeting Minnesota Power's energy needs in the wake of the . . . retirement of 700 MW of baseload coal-fired generation." It also stated that "[e]ven if Minnesota Power experiences no capacity needs, it will be purchasing energy from the [regional] market, and NTEC provides a hedge against spikes in market prices and reduces overall costs by providing an economic source of energy."

Relators Minnesota Center for Environmental Advocacy, Union of Concerned Scientists, and Sierra Club (collectively MCEA) and Honor the Earth filed separate appeals, which we consolidated. Both appeals challenged the denial of the EAW petition, and MCEA also challenged the approval of the affiliated-interest agreements. We

concluded that the commission erred by denying the EAW petition and reversed the approval of the affiliated-interest agreements on that basis. *In re Minn. Power's Petition*, 938 N.W.2d 843, 853 (Minn. App. 2019). The Minnesota Supreme Court reversed our decision and remanded for us to address MCEA's remaining challenge—whether the commission's approval of the affiliated-interest agreements “was supported by substantial evidence.” *In re Minn. Power's Petition*, 958 N.W.2d 339, 350 (Minn. 2021).

DECISION

The commission's approval of an affiliated-interest agreement is subject to judicial review by writ of certiorari. Minn. Stat. § 216B.52, subd. 1 (2020). We will reverse a decision of the commission if it lacks substantial evidentiary support. Minn. Stat. § 14.69 (2020); *e.g.*, *In re Applications of Enbridge Energy*, 930 N.W.2d 12, 28 (Minn. App. 2019), *review denied* (Minn. Sept. 17, 2019). But the party challenging the decision bears the burden of proof. *Minn. Power*, 958 N.W.2d at 344. And it is a heavy one, because the separation-of-powers doctrine mandates a deferential standard of review. *In re Cities of Annandale & Maple Lake NPDES/SDS Permit Issuance*, 731 N.W.2d 502, 513 (Minn. 2007). Accordingly, we afford the commission's decision “a presumption of correctness.” *Minn. Power*, 958 N.W.2d at 343-44. When reviewing a decision's evidentiary support, we defer to the commission's “conclusions regarding conflicts in testimony, the weight given to expert testimony and the inferences to be drawn from testimony.” *In re Wazwaz*, 943 N.W.2d 212, 216 (Minn. App. 2020) (quotation omitted), *review denied* (Minn. June 30, 2020). And we defer to the commission's expertise and “special knowledge in its own technical field.” *In re Excelsior Energy, Inc.*, 782 N.W.2d 282, 289 (Minn. App. 2010).

We will affirm the decision as substantially supported if the record as a whole contains enough relevant evidence that a reasonable mind might accept it as adequate to support the decision. *Enbridge Energy*, 930 N.W.2d at 21.

When the commission decides whether to approve an agreement between a Minnesota utility and an affiliate, the commission ordinarily must determine whether the agreement is “reasonable and consistent with the public interest.” Minn. Stat. § 216B.48, subd. 3. As Minnesota Power has acknowledged, the NTEC affiliated-interest agreements are not ordinary—they enable Minnesota Power to construct and operate a new power plant. If Minnesota Power were doing so in Minnesota rather than Wisconsin, and directly rather than through its affiliate, it would be required to obtain a certificate of need, Minn. Stat. § 216B.243, subd. 2 (2020), and to justify adding the power plant to its resource plan instead of renewable-resource alternatives, Minn. Stat. § 216B.2422, subd. 4. Recognizing this, the commission crafted a unique standard for assessing the NTEC affiliated-interest agreements that incorporates (1) a “need” requirement and (2) the “renewable resource requirements” of the certificate-of-need and resource-planning statutes. MCEA does not quarrel with this standard but challenges the commission’s decisions on both elements.

I. Substantial evidence supports the commission’s determination that NTEC is needed.

The commission defined need to encompass “all relevant factors,” including three mandatory factors: (1) “[a]n updated forecast of demand”; (2) costs, “including socioeconomic and environmental costs”; and (3) alternatives to some or all of the energy

and capacity from the proposed power plant.⁴ Minnesota Power and the department analyzed all three, both concluding that NTEC is needed. The commission adopted the department's analysis and determined that NTEC is needed as a low-cost source of energy and that its dispatchable capacity provides a hedge against market pricing. MCEA challenges both aspects of the commission's determination.

A. Low-Cost Energy

MCEA principally disputes the commission's determination that Minnesota Power needs NTEC as an energy source. It argues that this determination is flawed because the commission relied on the department's analysis, which assumed—but did not establish—the need for a resource of NTEC's size and type in 2025, when Minnesota Power proposes to add the power plant to its resource plan. This argument is unavailing. We look to the entire record to determine whether substantial evidence supports the commission's decision. Minn. Stat. § 14.69(e); *Enbridge Energy*, 930 N.W.2d at 21. While the commission chose to focus on the department's analysis, careful review of the record as a whole reveals ample evidence that NTEC's energy source addresses reasonably forecasted demand, is cost-effective, and is a better option than the alternatives.

Demand

Minnesota Power's demand forecast demonstrates a need for new generation resources. The company's vice president of strategy and planning, Julie Pierce, testified

⁴ This standard echoes some of the criteria applicable in a certificate-of-need proceeding under Minn. Stat. § 216B.243, subd. 3 (2020). But the certificate-of-need statute does not apply to affiliated-interest agreements.

that the retirement of coal resources removes 700 MW of baseload capacity and substantial energy production from its resource portfolio. The commission noted as much in approving Minnesota Power’s 2015 integrated resource plan, and MCEA does not dispute this loss—only what Minnesota Power needs to do to address it. Pierce also testified that, because the loss coincides with projected load growth, Minnesota Power anticipates a capacity deficit of 300 MW by 2025 and growing energy needs of about 1 million MWh annually by 2020, increasing to 2.4 million MWh by 2031. MCEA contends that improvements in energy efficiency and load management could substantially mitigate this need. But the department explained that these demand-side improvements are insufficient to remedy the shortfall because Minnesota Power has “little control” over energy efficiency, customers have limited “tolerance for interruption,” and load management cannot reduce energy consumption “to a significant degree.” As a result, the record supports that Minnesota Power needs to add generation resources to replace the retiring ones.

Cost Effectiveness

Record evidence also supports the commission’s finding that NTEC is a cost-efficient replacement option. Minnesota Power and the department used the Strategist modeling program to compare the costs of different resource combinations and identify cost impacts depending on various factors. They each modeled hundreds of resource combinations to determine the cost of each combination over time. In doing so, they included the commission-approved environmental costs for each resource. *See* Minn. Stat. § 216B.2422, subd. 3(a) (requiring the commission to quantify environmental costs

associated with each “method of electricity generation,” and utilities to use those values to evaluate resource options). Even after accounting for those environmental costs, the models showed NTEC is a low-cost source of energy.

Alternatives

Finally, record evidence supports the commission’s finding that NTEC is a better option than the alternatives. In their Strategist modeling, Minnesota Power and the department analyzed numerous alternatives for addressing forecasted demand. They considered energy efficiency and modeled combinations of load management and various resource additions, including NTEC; other natural-gas resources of smaller, larger, and similar size; storage; wind resources; and solar resources. These models consistently identified NTEC as the least-cost option for addressing Minnesota Power’s energy needs.

MCEA contends that the department’s modeling, on which the commission relied, is flawed. It does not challenge the department’s use of Strategist or the reliability of that program generally; indeed, the clean energy organizations used the same program to run eight of their own models. But MCEA emphasizes that the program’s results depend on the inputs used and contends the department’s inputs were unreasonable with respect to timing and non-generation alternatives. The MCEA’s argument does not persuade us for two reasons.

First, MCEA asserts that the department merely assumed that NTEC would become available in 2025. But as the commission explained, that assumption was reasonable because 2025 is when Minnesota Power proposes to complete construction and make NTEC available, and “there is nothing in the record to suggest that NTEC is available in

any other year.” The evidence also supports using 2025 as the year when NTEC will be operational because that timing corresponds to Minnesota Power’s increased need for capacity and energy in the mid-2020s. And any need to consider the suitability of NTEC in other years was addressed by the department’s inclusion in its modeling of a generic 200 MW natural-gas resource that mimicked NTEC.

Second, MCEA contends that the modeling does not sufficiently account for non-generation alternatives like load management and energy efficiency. The commission, like the department, recognized that the modeling could have included more such inputs. But the commission agreed with the department that the process of assessing resource options is “necessarily imprecise” and determined that the already wide range of load-management and energy-efficiency options in the extant modeling presented a reasonable basis for evaluating need. We defer to the commission’s expertise in such matters. *Excelsior Energy*, 782 N.W.2d at 289.

B. Dispatchable Capacity

MCEA also points to the commission’s determination that NTEC provides dispatchable capacity that serves as a hedge against market price risk, arguing that dispatchability does not itself establish the need for NTEC. But the commission’s conclusion that NTEC is needed did not turn solely on dispatchability. Rather, the commission reasoned that NTEC’s dispatchability is a relevant factor that contributes to the conclusion that the power plant is needed.

The record supports the commission’s reasoning. Pierce testified that wind and solar resources make up an increasingly substantial portion of Minnesota Power’s resource

portfolio—up from 5% in 2005 to around 30% even before the *EnergyForward* additions. She and Dr. Steve Rakow, the department’s public utilities analyst coordinator, both explained that wind and solar capacity does not always translate into available energy because those resources are unpredictable and uncontrollable—the wind is not always blowing, and the sun is not always shining. *See* Minn. Stat. § 216B.2422, subd. 4(3) (recognizing that “the intermittent nature of renewable energy facilities” can impact the cost of energy). In fact, as Minnesota Power illustrated in its *EnergyForward* petition, the output from those resources can ebb significantly even over the course of a single day. When that happens, or customer demand increases, Minnesota Power must increase output from more reliable resources, like coal or natural-gas generators, or purchase power on the regional market. Further, Minnesota Power’s consulting expert on energy and the environment, Stephen Brick, explained that adding more wind resources instead of NTEC leaves the company doubly vulnerable to market pricing, both to sell surplus energy into the market when prices are low and to buy energy from the market when prices are high. This evidence supports the commission’s finding that NTEC provides Minnesota Power “a hedge against spikes in market prices.” And that finding supports the determination that NTEC is needed.

II. Substantial evidence supports the commission’s determination that NTEC serves the public interest better than a renewable-resource alternative.

The commission incorporated two similar “renewable energy requirements” in determining whether to approve the NTEC affiliated-interest agreements. The first requires a utility to demonstrate that it “has explored the possibility of generating power

by means of renewable energy sources and has demonstrated that the alternative selected is less expensive (including environmental costs) than power generated by a renewable energy source.” Minn. Stat. § 216B.243, subd. 3a. The second requires a utility to demonstrate “that a renewable energy facility is not in the public interest.” Minn. Stat. § 216B.2422, subd. 4. In weighing public interest, the commission considers: (1) whether the utility’s resource plan, as a whole, helps the utility achieve renewable-energy standards; (2) “impacts on local and regional grid reliability”; (3) impacts on the utility and ratepayers “resulting from the intermittent nature of renewable energy facilities, including but not limited to the costs of purchasing wholesale electricity in the market and the costs of providing ancillary services”; and (4) “utility and ratepayer impacts resulting from reduced exposure to fuel price volatility, changes in transmission costs, portfolio diversification, and environmental compliance costs.” *Id.*

In applying these requirements to NTEC, the commission again looked to the department’s analysis. It determined that “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.”

MCEA argues that this conclusion lacks sufficient detail and evidentiary support. We disagree. While the conclusion is concise, it nonetheless communicates the commission’s reasoning—a wind or solar alternative is not in the public interest because the comprehensive costs for such resources are higher than those associated with NTEC. And its decision as a whole demonstrates that it considered the relevant factors and

extensive evidence adduced during the contested case and before the commission in arriving at that conclusion.

The commission explained that the Energy*Forward* package, including NTEC and the new wind and solar resources, moves Minnesota Power's resource plan increasingly toward renewable resources and away from the coal resources that are "the biggest obstacle to Minnesota Power achieving state emission-reduction goals in the long term."⁵ The commission also discussed the greater reliability NTEC provides, as opposed to wind or solar alternatives, and the costs that Minnesota Power would incur if it added still more of those intermittent resources instead of NTEC. And the commission emphasized the role NTEC can play in supporting an overall more diverse, environmentally conscious, and lower-cost portfolio of resources.

The record, including to a limited extent the input the commission received at its two-day hearing,⁶ supports the conclusion that NTEC serves the public interest better than renewable-resource alternatives. As discussed above, Minnesota Power and the department offered extensive evidence and analyses showing that the transition away from

⁵ To ensure further movement away from coal resources, the commission conditioned its approval of the NTEC affiliated-interest agreements on Minnesota Power providing a detailed plan for retiring all of its remaining coal-fired generators by 2035.

⁶ MCEA contends the commission erred by receiving "material new testimonial evidence" after the contested case, pointing to Dr. Rakow's statements at the commission's two-day hearing. We discern no error. Where, as here, the commission renders the final decision, the contested-case record does not close until after the parties have presented argument to the commission. Minn. Stat. § 14.61, subd. 2 (2020). Further, MCEA did not object to Dr. Rakow's statements, which, like the extensive statements of the other parties' representatives at the hearing, merely clarified evidence already in the record.

coal and toward intermittent renewable resources impairs reliability and could increase reliance on energy markets, thereby increasing costs. Their analyses also demonstrated that NTEC addresses these concerns, providing a more reliable and lower cost (including environmental costs) source of energy than the equivalent renewable resources. Accordingly, substantial evidence supports the commission's determination that NTEC best serves the public interest.

Affirmed.