

STATE OF MINNESOTA
SUPREME COURT

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

Case Nos. A19-0688
A19-0704

BRIEF OF AMICUS CURIAE FRESH ENERGY

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TABLE OF CONTENTS

	<u>Page</u>
TABLE OF AUTHORITIES.....	iii
IDENTITY AND INTEREST OF AMICUS CURIAE.....	1
ARGUMENT.....	1
I. THE MPUC HAS APPROVED A MAJOR NEW INVESTMENT IN FOSSIL FUELS TO BE PAID FOR BY MINNESOTA RATEPAYERS, WITH LONG-TERM ENVIRONMENTAL AND FINANCIAL CONSEQUENCES.	1
A. Electric utilities are subject to rigorous government oversight to protect ratepayers and ensure compliance with state environmental and economic goals.	2
B. Approving a Minnesota utility’s proposal to invest in a new fossil fuel power plant and pass the cost on to Minnesota ratepayers is one of the most consequential decisions the MPUC can make.	4
C. Minnesota Power’s unprecedented choice to demonstrate the need for NTEC through a proceeding brought under the affiliated interest statute does not change the statutory standards that apply to power plant need determinations, or reduce the value of environmental review.	7
II. THE MPUC’S APPROVAL OF A MAJOR NEW SOURCE OF GREENHOUSE GASES AT A TIME WHEN THE STATE IS STRUGGLING TO REDUCE GREENHOUSE GASES MAKES ENVIRONMENTAL REVIEW PARTICULARLY CRITICAL.	10
A. Minnesota must dramatically reduce its greenhouse gases in the decades ahead.....	10
B. NTEC is certainly a major new source of greenhouse gases, but its full impact on the climate – including how it compares to a coal plant -- is unknown given the lack of environmental review under MEPA.	13
C. Environmental review of NTEC is also necessary to understand the full financial risks this project poses to Minnesota ratepayers.	19

III. ENVIRONMENTAL REVIEW UNDER MEPA IS UNQUESTIONABLY TRIGGERED BY THE MPUC’S APPROVAL OF THE NTEC POWER PLANT. 21

IV. SINCE THE MPUC COULD HAVE REJECTED MINNESOTA POWER’S PROPOSAL WITHOUT HAVING VIOLATED THE COMMERCE CLAUSE, IT CAN REVIEW THAT PROPOSAL UNDER MEPA WITHOUT VIOLATING THE COMMERCE CLAUSE. 24

V. THE MPUC’S FINDING THAT THE NTEC POWER PLANT IS NEEDED AND IN THE PUBLIC INTEREST FAILS ON THE MERITS. 24

VI. UPHOLDING THE COURT OF APPEALS DECISION POSES NO THREAT TO ELECTRICITY SUPPLY OR RELIABILITY. 26

CONCLUSION 28

TABLE OF AUTHORITIES

Page

CASES:

In re Enbridge Energy, 930 N.W. 2d 12 (Minn. App. 2019), *rev. denied*
(Minn. Sep. 17, 2019) 18

In re Envtl. Assessment Worksheet for 33rd Sale of State Metallic Leases,
838 N.W.2d 212 (Minn. App. 2013), *rev. denied* (Minn. Nov. 26, 2013). 23

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(Minn. App. 2002). 23

RULES AND STATUTES:

Minn. Stat. § 116D.01 22

Minn. Stat. § 116D.03 18

Minn. Stat. § 116D.04 18, 21, 23

Minn. Stat. § 216B.16 9

Minn. Stat. § 216B.2422 *passim*

Minn. Stat. § 216B.48 *passim*

Minn. Stat. § 216C.05 6

Minn. Stat. § 216H.01 11

Minn. Stat. § 216H.02 10, 15

Minn. R. 4410.0200 21, 22

Minn. R. 7843.0300 3

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Lavelle, Marianne, “Trump’s Paris Climate Accord Divorce: Why It Hasn’t Happened Yet and What to Expect,” <i>Inside Climate News</i> , Nov. 5, 2019.	11
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O’Boyle, Michael, “Utility Investors Risk Billions in Rush to Natural Gas: Is It A Bridge to Climate Breakdown?” <i>Forbes</i> , Mar. 4, 2020.	15
Oil Change International, “Burning the Gas ‘Bridge Fuel’ Myth: Why Gas is Not Clean, Cheap, or Necessary. May 30, 2019.	15

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IDENTITY AND INTEREST OF AMICUS CURIAE

Fresh Energy is a Minnesota non-profit organization whose mission is to provide clean energy policy solutions, advocacy, expertise and analysis. Fresh Energy is also a regular party in cases before the Minnesota Public Utilities Commission.¹

ARGUMENT

I. THE MPUC HAS APPROVED A MAJOR NEW INVESTMENT IN FOSSIL FUELS TO BE PAID FOR BY MINNESOTA RATEPAYERS, WITH LONG-TERM ENVIRONMENTAL AND FINANCIAL CONSEQUENCES.

Minnesota has a vital interest in preventing major energy investment mistakes by its public utilities -- mistakes that threaten Minnesota's ratepayers, its economy, and the environment. The threat is particularly profound when a utility seeks to spend hundreds of millions of dollars on a new power plant and then pass that cost onto Minnesota ratepayers through its rates. The Minnesota Public Utilities Commission (MPUC) bears the responsibility of deciding what energy projects ratepayers will be required to pay for and, therefore, what energy projects Minnesota utilities actually build.

Appellants try to trivialize the MPUC's determination that the Nemadji Trail Energy Center (NTEC) is needed and in the public interest (its "need determination"), claiming the MPUC has merely approved business arrangements with an affiliate of

¹ No counsel for a party authored this brief in whole or in part, nor has any person or entity other than Fresh Energy or its counsel made a monetary contribution to the preparation or submission of the brief.

Minnesota Power. The only reason Appellants can even try to portray the MPUC's approval of a new power plant in such an absurdly cramped fashion is because Minnesota Power chose to pursue this all-important need determination through a proceeding brought under the affiliated interest statute. Minn. Stat. § 216B.48.

However, Minnesota Power's use of this procedural side door rather than the process the legislature intended in no way changes the substantive legal standards the power plant had to meet for approval and rate recovery. It does not change the far-reaching nature of MPUC's approval of NTEC, triggering decades of financial and environmental consequences. And it does not change the applicability of MEPA or the value of environmental review before making such a consequential decision.

The true nature and impact of the MPUC's decision is best understood in the broader context of the state laws governing utility resource acquisition.

A. Electric utilities are subject to rigorous government oversight to protect ratepayers and ensure compliance with state environmental and economic goals.

Public utilities like Minnesota Power are subject to vastly more rigorous government oversight than other private entities, and for good reason. The state grants a utility an exclusive right to provide a vital service to customers within a defined service territory, sheltering the utility from competition from other would-be service providers. In exchange for this monopoly right, and as a substitute for the discipline of market competition, the state steps in to ensure that the utility charges its customers just and

reasonable rates, provides reliable and quality service, and – particularly in the case of electric utilities -- complies with state's broader environmental and economic goals.

No other type of private enterprise is subject to the comprehensive and hands-on government oversight given to the various types of public utilities. That oversight includes assessing whether the utility's major long-term investments are in the public interest and thus whether their captive customers will pay for them. The electricity bill payments made by Minnesota's ratepayers may be seen as a vast river of money flowing to utilities; the MPUC must decide where that river flows and prevent it from flowing toward resources that fail to comply with state policy.

Ensuring that public electric utilities make resource choices in the public interest demands a long-term perspective because power plants take years to build and are meant to run for decades. Minnesota, like many states, therefore requires utilities to prepare detailed Integrated Resource Plans (IRPs). Minn. Stat. § 216B.2422. IRPs must be submitted every two years, and they must forecast power demand during the following fifteen years, setting forth the mix of electric generating resources the utility plans to use to meet that demand. Minn. R. 7843.0300, subp. 2.

IRPs are conducted using sophisticated computer models, into which utilities put a multitude of assumptions about the cost and availability of a wide range of resource options. IRPs are typically the subject of lengthy and detailed proceedings that allow the MPUC, ratepayers, environmental and consumer advocates, and other stakeholders

and agencies to scrutinize and challenge those assumptions, and even submit their own modeling using different assumptions. As the MPUC has stated, the facts on which a resource decision depends “all require the kind of careful judgment that sharpens with exposure to the views of engaged and knowledgeable stakeholders.” (MPUC Add. 54).

Minnesota law explicitly makes the IRP process a vehicle for ensuring compliance with critical state energy and environmental policies. For example, the IRP law requires utilities’ plans to discuss the costs of and barriers to achieving the state’s greenhouse gas (GHG) reduction goals. Minn. Stat. § 216B.2422, subd. 2c. It requires utilities to include a plan for meeting 50 to 75% of all its energy needs from both new and refurbished facilities through conservation and renewable energy. Minn. Stat. § 216B.2422, subd. 2(c). And it mandates the consideration of environmental and socioeconomic costs in energy planning. Minn. Stat. § 216B.2422, subd. 3.

B. Approving a Minnesota utility’s proposal to invest in a new fossil fuel power plant and pass the cost on to Minnesota ratepayers is one of the most consequential decisions the MPUC can make.

What a utility must demonstrate to win the MPUC’s approval of a new fossil fuel power plant is a particular focus in state law. Power plants represent enormous long-term capital investments; Minnesota Power’s share of NTEC’s capital costs is over \$350 million. (R. 6139). With an operating lifetime of decades, such a plant locks in many years of pollution and the financial risks of hard-to-predict fuel and regulatory costs. If such costs exceed expectations the plant could end up operating at a loss or have to

close prematurely, becoming a costly stranded asset. Indeed, changing economic conditions or new environmental policies could even force the abandonment of a power plant before construction is complete.

History illustrates the financially ruinous consequences of utilities taking the wrong power plant investment path. In the 1970s, U.S. electric utilities launched a power plant building spree that would prove disastrous to both ratepayers and the industry. Utilities, having overestimated electricity demand and underestimated the costs of building power plants, ended up cancelling 97 nuclear plants and 75 coal plants between 1974 and 1984; many plants had already been under construction, and sunk costs for the cancelled nuclear plants alone amounted to \$10 billion.² Many other plants were completed but turned out to be unnecessary to meet demand, amounting to costly excess capacity on the books of the utilities.

Utilities urged regulators to let them charge ratepayers for the losses caused by abandoned plants and excess capacity, and ratepayers did bear many of these losses; electric rates increased three-fold between 1972 and 1984. Utilities also bore some of the losses, leading to financial turmoil within the industry.³ One goal of resource planning is to avoid such costly mistakes. In the MPUC's 1990 Statement of Need and

² Congressional Budget Office, "Financial Condition of the U.S. Electric Utility Industry," March 1986, p. 11-12. https://www.cbo.gov/sites/default/files/99th-congress-1985-1986/reports/doc10b-entire_1.pdf

³ Id., p. 9-14.

Reasonableness supporting the original adoption of its resource planning rule, the MPUC specifically cited the “[p]lanning errors across the United States [that] have translated into billions of dollars of plant disallowances and/or rate increases.”⁴

Resource planning also advances the state’s renewable energy goals. Minnesota law declares the state’s “vital interest” in promoting energy efficiency, renewable energy, and effective energy forecasting and planning. Minn. Stat. § 216C.05. Minnesota’s resource planning law manifests this vital interest by expressly preferring renewables over fossil fuels. The MPUC may approve a new nonrenewable plant like NTEC only if the utility has demonstrated that a renewable energy facility is “not in the public interest,” and *only then* is the utility allowed to recover the costs for such a plant from ratepayers. Minn. Stat. § 216B.2422, subd. 4.

This is why the MPUC’s decision approving NTEC was so critical for Minnesota Power, and why the utility repeatedly indicated that the project depended upon the MPUC’s determination. (MCEA Br. 14-16). The MPUC did not merely approve a business relationship, with no environmental consequences, as the Appellants claim. (MP Br. 7, 25; MPUC Br. 12). It approved an agreement allowing a Minnesota utility to build and run a new power plant (under Minn. Stat. § 216B.48), and more importantly, it

⁴ Minnesota Public Utilities Commission, *In the Matter of the Proposed Adoption of Rules Governing the Resource Planning Process for Electric Utilities, Minn. Rules, Parts 7843.0100 to 7843.0600*, Docket No. E-999/R-89-201. “Statement of Need and Reasonableness,” Jan. 19, 1990, p. 21.
<https://www.leg.state.mn.us/archive/sonar/SONAR-01617.pdf>

made the need and public interest determinations necessary to eventually allow hundreds of millions of dollars to flow from Minnesota ratepayers to Minnesota Power to pay for the plant.⁵ Minn. Stat. § 216B.2422, subd. 4.

C. Minnesota Power’s unprecedented choice to demonstrate the need for NTEC through a proceeding brought under the affiliated interest statute does not change the statutory standards that apply to power plant need determinations, or reduce the value of environmental review.

In its 2015 IRP, Minnesota Power proposed adding new natural gas combined-cycle generation to its resource mix by 2024. In its order approving and modifying the 2015 IRP, the MPUC declined to establish any presumption in favor of this proposed gas generation. Instead, it ordered the utility to include in its next resource plan “a full analysis of all alternatives to natural gas.” (MPUC Add. 61).

Minnesota Power could and should indeed have sought the MPUC’s approval of NTEC in its next resource plan, as part of the “full analysis” the MPUC ordered and using the comprehensive process the legislature intended for such critical need determinations. (MPUC Add. 61). It could have then, in a separate or consolidated docket, requested MPUC approval under the affiliated interest statute of its contracts with its affiliate, South Shore Energy LLC. That separate analysis would have focused on the narrow and distinct issue of ensuring these agreements did not inappropriately use

⁵ Specifically, the MPUC finds in Attachment A to its order that “the capital costs approved in this docket . . . used in the Strategist modeling . . . will be the starting point for review in the rate case, and recovery of any higher costs would require MP to support that it is reasonable to charge the costs to its ratepayers.” (R. 13269).

ratepayer money to subsidize an affiliated entity. It is worth noting that South Shore is merely a shell corporation with no employees, and no financial statements, created to comply with Wisconsin's in-state ownership law. (R. 7123). Minnesota Power acknowledges that while South Shore is the named owner of NTEC, "all indicia of control and responsibility of [NTEC] will reside with Minnesota Power on the same basis as if the asset were owned by Minnesota Power." (R. 10579).

Minnesota Power, for whatever reason, chose not to take this path. Instead, it pursued the MPUC's crucial determination that NTEC was needed and in the public interest through a proceeding nominally just about the affiliated interest agreements. Stakeholders asked the MPUC to reject Minnesota Power's procedural choice, which had the effect of limiting the range of resources to which NTEC was compared. (R. 1745-1747). One Commissioner described the utility's approach as trying to "bootstrap a whole process under the affiliated agreement statute." (R. 1833). Ultimately, the MPUC agreed to create a new process "out of thin air, which we can apparently do because you [Minnesota Power] want us to," in the words of the same Commissioner. (R. 1837).

The vast majority of this new, "out of thin air" proceeding -- including the testimony, hearings, deliberation, and order -- focused not on the terms of the affiliated interest agreements, but on what the MPUC itself called the "ultimate issue" of whether NTEC was needed and reasonable. (R. 1774). The MPUC then imported the

standards that normally apply to need determinations from other statutory proceedings, packing them into the requirement that a project be “reasonable and consistent with the public interest” under the affiliated interest statute. Minn. Stat. § 216B.48, subd. 3; (R. 13245). This included importing the requirement under Minn. Stat. § 216B.2422, subd. 4, that Minnesota Power demonstrate that a renewable alternative is not in the public interest, without which Minnesota Power is barred from recovering its NTEC costs from ratepayers under Minn. Stat. § 216B.16.⁶

To be clear, the question of the affiliated interest agreements was also raised and decided. Minnesota Power needed those agreements to be approved by the MPUC to make them valid, and they were indeed approved. Minn. Stat. § 216B.48, subd. 3; (R. 013263). This includes the agreements that allow Minnesota Power to actually construct and run the NTEC plant, and this approval alone would trigger environmental review under MEPA, even if the MPUC had not also made the need determination that makes the whole project possible. However, the issue of the affiliated interest agreements was by no means the main event in this docket.

⁶ Oddly, Minnesota Power argues that the Commission did not “apply” § 216B.2422, subd. 4, to this matter but merely used it “by analogy.” (MP Br. 31). If the Court agrees that § 216B.2422 was not actually applied, it raises questions about whether a need determination has actually been made. At the very least, Minnesota Power cannot claim to have gained the “regulatory certainty” it was seeking in this proceeding. (R. 1835, 6139). Rate recovery for its NTEC costs would have to be denied unless and until it could make the necessary showing in a future proceeding.

Now, Appellants are making the audacious claim that MEPA review is not required because the affiliated interest statute is narrowly concerned only with the business relationship between affiliates, not about anything with environmental consequences. (MP Br. 7, 25; MPUC Br. 12). This argument rests on a profound mischaracterization of the MPUC's action. Appellants are asking this Court to ignore that fact that – whatever the docket before the MPUC was entitled – this was a proceeding through which the MPUC approved a major new power plant, and it did so without prior review under MEPA of this plant's large and lasting environmental impacts.

II. THE MPUC'S APPROVAL OF A MAJOR NEW SOURCE OF GREENHOUSE GASES AT A TIME WHEN THE STATE IS STRUGGLING TO REDUCE GREENHOUSE GASES MAKES ENVIRONMENTAL REVIEW PARTICULARLY CRITICAL.

A. Minnesota must dramatically reduce its greenhouse gases in the decades ahead.

The approval of Minnesota Power's investment in NTEC is all the more momentous given that the state and the rest of the world are faced with the unprecedented challenge of figuring out how to dramatically reduce their greenhouse gas emissions in the next few decades. In 2007, Minnesota adopted what were then aggressive greenhouse gas reduction goals: to cut the statewide emissions by at least 15% by 2015, by at least 30% by 2025, and by at least 80% by 2050 (all relative to 2005 levels). Minn. Stat. § 216H.02, subd. 1. However, Minnesota is not on track to meet these goals; by 2017 it had reduced statewide emissions by only about 4% from 2005 levels. (R. 4304).

The state's greenhouse gas reduction law explicitly includes in the definition of "statewide greenhouse gas emissions" the pollution emitted from the generation of power "imported from outside the state and consumed in Minnesota." Minn. Stat. § 216H.01, subd. 2. This makes sense because Minnesota's energy consumption and investment choices have exactly the same impact on the global climate and on Minnesota's own climate regardless of where a power plant is located.

After Minnesota adopted these emission reduction targets, the United States and the other nations of the world agreed to pursue much more aggressive climate protection goals. In the Paris Agreement,⁷ negotiated in 2015 under the United Nations' Framework Convention on Climate Change, nations agreed to hold the increase in global temperatures to "well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels."⁸ In 2018, the Intergovernmental Panel on Climate Change (IPCC) delivered its official report indicating that to have a reasonable chance of limiting warming to the much safer target of 1.5°C,

⁷ While the Trump administration is in the process of withdrawing the U.S. from the Paris Agreement, that process is a long one and will not be final until November of 2020; the US can return to the Paris Agreement with thirty days notice and Joe Biden has announced plans to return the U.S. to the Agreement if elected. Marianne Lavelle, "Trump's Paris Climate Accord Divorce: Why It Hasn't Happened Yet and What to Expect," *Inside Climate News*, Nov. 5, 2019.

<https://insideclimatenews.org/news/04112019/trump-pull-out-paris-climate-agreement-timing-rules>

⁸ Conference of the Parties, Adoption of the Paris Agreement, Dec. 12, 2015. U.N. Doc. FCCC/CP/2015/L.9/Rev/1, p. 22, Article 2, paragraph 1(a).

<https://unfccc.int/resource/docs/2015/cop21/eng/l09r01.pdf>

the world must reduce greenhouse gas emissions by about 45% from 2010 levels by 2030 and reach net-zero emissions by 2050. To have a reasonable chance of keeping warming below 2°C, emissions must be cut by 25% by 2030 and net-zero emissions must be achieved by 2070.⁹

Both Minnesota's emission reduction targets and those that the IPCC says are needed to achieve the goals of the Paris Agreement refer to economy-wide reductions. Scenarios for achieving these reduction targets in a least-cost way routinely assume much deeper reductions in the electricity sector. (R. 4306, 4310). Its integrated nature and the existence of carbon-free means of generating power make it easier and cheaper to reduce emissions from the power sector than from many other sectors.

Notably, the climate plan recently announced by Democratic presidential nominee Joe Biden aims to achieve net-zero emissions in the U.S. by 2050, but it aims to achieve *carbon-free emissions from the electric grid by 2035*.¹⁰ The NTEC plant is scheduled to come online in 2024 (R. 11388); if actually built, by this schedule NTEC would be only eleven years old by the time the U.S. electric grid needs to be carbon-free according to the plan of the Democratic nominee for president.

⁹ IPCC, Summary for Policymakers. In *Global Warming of 1.5°C*, 2018. p. 12, para. C.1. https://www.ipcc.ch/site/assets/uploads/sites/2/2019/05/SR15_SPM_version_report_L_R.pdf

¹⁰ Reuters, "Biden Climate Plan Would Spend \$2 Trillion in Bid to Boost Economy," *New York Times*, July 14, 2020. <https://www.nytimes.com/reuters/2020/07/14/us/politics/14reuters-usa-election-biden.html?searchResultPosition=2>

The aggressive emission reductions needed to comply with state law, with the Paris Agreement, and with possible standards under a new federal administration -- and to avoid the global catastrophe of runaway climate change -- make it a particularly perilous time to launch a new long-term investment in fossil fuels. It is certainly no time for the MPUC to be approving a major source of greenhouse gases without having conducted the environmental review required under MEPA.

B. NTEC is certainly a major new source of greenhouse gases, but its full impact on the climate – including how it compares to a coal plant -- is unknown given the lack of environmental review under MEPA.

The MPUC describes its approval of the NTEC project as a means of “reducing the utility’s overall emissions.” (MPUC Br. 23). This is an extraordinary and revealing statement, and it is consistent with a troubling theme that repeatedly emerged in the MPUC’s deliberations, when NTEC was portrayed as a potential alternative to more-polluting coal plants (R. 12679, 12827, 12959, 13024-5). Minnesota Power has indeed retired some old coal units, and it has more of them to retire. However, past coal retirements were in no way conditioned on building NTEC, nor was building NTEC in any way conditioned on closing more coal plants.

The question actually before the MPUC was whether the NTEC natural gas plant was needed and, if so, in the public interest when compared to renewable energy and efficiency. Comparing natural gas to renewables and efficiency was the focus of the parties’ modeling and disputes, (R. 11423-11454), and the NTEC/renewables

comparison is the critical legal standard under Minn. Stat. § 216B.2422, subd. 4. The modeling on which the MPUC relied in finding NTEC to be needed did not even include a scenario in which the utility's two major remaining coal units are retired early.¹¹ It is simply wrong to portray the approval of this large new source of pollution as “a decision that the Commission made to *reduce* the environmental costs of providing electric service,” as the MPUC does. (MPUC Br. 23).

In fact, large natural gas power plants like NTEC put tremendous amounts of CO₂ into the atmosphere. Their CO₂ emissions are typically exceeded only by coal plants or the very largest and most polluting of industrial facilities, like refineries. Minnesota Power has designated NTEC's projected carbon emissions as a trade secret, but other similar plants illustrate just how major NTEC's impact would be. For example, Xcel's Riverside natural gas power plant (which is smaller: only 454 megawatts¹² compared to 525 megawatts), emitted almost one million tons of carbon dioxide in 2018 according to the EPA's database.¹³ The annual emissions per megawatt of other proposed gas plants, (R. 4311), suggests NTEC's emissions would be roughly 1.3 million tons per year.

¹¹ Dr. Rakow of the Department of Commerce, on whose modeling the Commission relied, was asked by a Commissioner if building NTEC would likely improve the cost profile of shutting down two of Minnesota Power's coal units early. While acknowledging the possibility, Dr. Rakow said, “I haven't analyzed shutting down Boswell 3 and 4, it hadn't occurred to me to do that.” (R. 12827).

¹² Xcel Energy, “Riverside Generating Station,” fact sheet.

https://www.xcelenergy.com/energy_portfolio/electricity/power_plants/riverside

¹³ EPA Flight (Facility Level Information on Greenhouse Gases) Website: 2018 Greenhouse Gas Emissions from Large Facilities.

<https://www.epa.gov/ghgreporting/ghg-reporting-program-data-sets>

Only five facilities in the entire state of Minnesota emitted more than a million tons of CO₂ in 2018, including three aging coal power plants (two of which are scheduled for retirement).¹⁴

Building new gas plants threatens to make it impossible for Minnesota to achieve its greenhouse gas reduction goals. Minn. Stat. § 216H.02, subd. 1; (R. 4312-4314). And clearly, building new natural gas plants that will emit CO₂ for decades is utterly incompatible with achieving a national net-zero power grid by 2035, as proposed by presidential candidate Biden, or even with achieving global net-zero emissions by 2050, as the world must do to limit warming to 1.5°C. NTEC, scheduled to commence operation in 2024, could not reach its assumed forty-year working life without greatly overshooting both these deadlines. (R. 6015). The earlier notion that natural gas is a “bridge fuel” is increasingly seen as a myth, with new gas plants posing both severe climate risks to the world¹⁵ and severe financial risks to utilities and their customers.¹⁶ Regulators in other states have started to resist utility pressure to build more of them.¹⁷

¹⁴ EPA Flight Website, Minnesota facilities.

¹⁵ Oil Change International, “Burning the Gas ‘Bridge Fuel’ Myth: Why Gas is Not Clean, Cheap, or Necessary. May 30, 2019. <http://priceofoil.org/2019/05/30/gas-is-not-a-bridge-fuel/>

¹⁶ Michael O’Boyle, “Utility Investors Risk Billions in Rush to Natural Gas: Is It A Bridge to Climate Breakdown?” *Forbes*, Mar. 4, 2020. <https://www.forbes.com/sites/energyinnovation/2020/03/04/utility-investors-risk-billions-in-rush-to-natural-gas-is-it-a-bridge-to-climate-breakdown/#149572b450af>

¹⁷ Brad Plumer, “As Coal Fades in the U.S., Natural Gas Becomes the Climate Battleground,” *New York Times*, June 6, 2019. <https://www.nytimes.com/2019/06/26/climate/natural-gas-renewables-fight.html>

However, to understand the full impact of NTEC on the climate and the environment generally we must look beyond the plant itself to the impacts caused by the extraction of the fuel NTEC will burn. It is well known that natural gas leaks into the atmosphere as it is extracted, processed and transported. Natural gas is mostly methane, and methane is a greenhouse gas far more potent than carbon dioxide. The IPCC has found that methane's global warming effect over a 20-year period is 86 times greater than CO₂'s.¹⁸ As with CO₂, it does not matter where the methane is emitted; the emissions disperse globally and cause warming on a global scale.

The problem of methane leakage is one of the issues forcing a major reassessment of the wisdom of replacing aging coal plants with new natural gas plants. While there is no doubt that the CO₂ emissions per megawatt-hour from a gas plant are lower than those from a coal plant, gas plants' climate advantage over coal is certainly reduced by upstream methane leakage. The question is by how much.

Methane leakage has been historically hard to measure, but a major 2018 study estimated that 2.3% of gross natural gas production is leaked or vented to the atmosphere during extraction, processing, and transportation, or about 60% more than the EPA has estimated. The global warming caused by this leakage during a 20-year

¹⁸ Gunnar Myhre et al. "Anthropogenic and Natural Radiative Forcing," in IPCC, *Climate Change 2013: The Physical Science Basis*, Table 8.7.
file:///C:/Users/barba/OneDrive/Documents/A%20Minnesota%20Power%20Case/WG1AR5_Chapter08_methane%20GWP.pdf

time horizon would be roughly the same as the warming caused by CO2 from the combustion of the remaining natural gas.¹⁹ In other words, gas plants like NTEC might be causing twice the climate damage over twenty years when you factor in the supply chain leakage rather than just the plant's direct emissions, making them much more comparable to coal plants.

An even newer study using satellite technology estimates that 3.7% of the gas extracted from the Permian Basin is leaked or vented,²⁰ which would make the use of this gas to generate electricity far more damaging to the climate than burning coal.²¹ The MPUC's assumption that it has approved a power plant with substantially lower climate impact than a comparably-size coal plant may not only be wrong -- the reverse may be true.

Appellants suggest that MEPA review of the NTEC project would be meaningless by repeatedly portraying environmental review under MEPA in the most narrow and parochial of terms, as if MEPA focuses exclusively on local, site-specific environmental

¹⁹ Ramon A. Alvarez, et al. "Assessment of methane emissions from the U.S. oil and gas supply chain." *Science* 361, 186-188 (2018).

<https://science.sciencemag.org/content/361/6398/186>

²⁰ Yuzhong Zhang, et al. "Quantifying methane emissions from the largest oil-producing basin in the United States from space," *Science Advances*, 6: 17 (April 22, 2020).

<https://advances.sciencemag.org/content/6/17/eaaz5120>

²¹ Adam Vaughan, "Fracking wells in the US are leaking loads of planet-warming methane," *NewScientist*, April 22, 2020.

<https://www.newscientist.com/article/2241347-fracking-wells-in-the-us-are-leaking-loads-of-planet-warming-methane/>

effects, (MP Br. 34; MPUC Br. 12), and as if it can only be of benefit to agencies that tweak those site-specific impacts through direct regulation of the plant's physical construction or operations. (MPUC Br. 11). These portrayals are inaccurate. An agency that could deny a critical approval to a project surely benefits from being fully informed of the project's environmental impacts (as do those agencies that "wholly or partially" "conduct," "assist," or "finance" such projects. Minn. Stat. § 116D.04, subd. 1a(d).)

And MEPA's focus clearly goes well beyond site-specific impacts; indeed, the law explicitly requires all Minnesota agencies to "recognize the worldwide and long range character of environmental problems" and, where consistent with state policy, to support broader efforts to prevent "a decline in the quality of the world environment." Minn. Stat. § 116D.03, subd. 2(5).

Courts have interpreted both MEPA and the National Environmental Policy Act (NEPA) to require review of a project's impact on climate, including indirect impacts. As the Court of Appeals noted last year, "[r]ecent federal decisions have held that an EIS must address impacts of GHG emissions, including indirect impacts from upstream and downstream emissions." *In re Enbridge Energy*, 930 N.W. 2d 12, 29 (Minn. App. 2019), *review denied* (Minn. Sep. 17, 2019). The MPUC itself applied this approach under MEPA, in its recent environmental review of the Enbridge pipeline. That EIS addressed "the impact of the project on GHG emissions, including upstream emissions (from oil extraction) and downstream emissions (from oil consumption)." *Id.*

A study of the upstream methane emissions associated with NTEC under MEPA would unquestionably help the MPUC understand the scale of NTEC's damage to the climate. Indeed, preventing agencies like the MPUC from approving major projects like NTEC without fully understanding the environmental consequences is precisely the kind of problem MEPA was enacted to address.

C. Environmental review of NTEC is also necessary to understand the full financial risks this project poses to Minnesota ratepayers.

Even if the state had no concern over the global impacts of its energy investments or of the environmental impacts of power generated outside the state, the MPUC would have a critical *financial* reason to thoroughly study NTEC's environmental impacts, because profound environmental risks create profound economic risks.

The issue of methane leakage discussed above is one example. The EPA under the Obama administration adopted rules requiring new gas wells to reduce their methane leakage, and announced plans to later adopt similar rules for existing gas wells.²² Under the Trump administration, the EPA has proposed to greatly weaken the rule governing new wells in order to reduce compliance costs to the industry,²³ and no

²² Chris Mooney and Brady Dennis. "Obama administration announces historic new regulations for methane emissions from oil and gas," *Washington Post*, May 12, 2016. <https://www.washingtonpost.com/news/energy-environment/wp/2016/05/12/obama-administration-announces-historic-new-regulations-for-methane-emissions-from-oil-and-gas/>

²³ Environmental Protection Agency, "EPA Proposes Updates to Air Regulations for Oil and Gas to Remove Redundant Requirements and Reduce Burden," *News Release*, Aug. 29, 2019.

rule regulating existing wells has been pursued. A post-Trump EPA might well restore the rules for new wells and go on to adopt rules for existing wells. A more informed understanding of the scale of methane leakage gained from environmental review would help the MPUC predict the likelihood of new rules and their impact on the fuel costs faced by NTEC in the years ahead.

Another example is the related issue of fracking, or the use of hydraulic fracturing techniques in natural gas extraction. Fracking has been credited with greatly expanding natural gas production and reducing gas prices, but it has also sparked tremendous controversy, both because of its role in methane leakage and because of more local effects ranging from polluting water to causing earthquakes.

Calls to ban fracking are increasingly common and were supported by many candidates vying for the Democratic presidential nomination. Such a ban would shrink gas production and almost certainly raise gas prices. In fact, the U.S. Chamber of Commerce claims that a ban on fracking would quadruple the price of natural gas, which if even close to true would dramatically change the economics of NTEC.²⁴ The likelihood that fracking could actually be banned, or subject to heavy regulation that would increase fuel costs, depends in no small part on the scale of environmental harms

²⁴ Global Energy Institute, “New Chamber Analysis Quantifies Economic Risks of Proposed Fracking Ban,” Press Release, Dec. 19, 2019. <https://www.globalenergyinstitute.org/new-chamber-analysis-quantifies-economic-risks-proposed-fracking-ban>

fracking causes. Environmental review of this issue would give the MPUC information critical to judging the financial risks associated with building a new gas plant that will, like all the nation's gas plants, depend heavily on fracked gas.

The MPUC approved the NTEC project largely because it was seen as a financial "hedge" against fluctuating electricity market prices. (R. 13255). A full environmental review under MEPA could well have altered that decision by, among other things, illuminating the financial risks inherent in today's environmentally harmful gas extraction methods.

III. ENVIRONMENTAL REVIEW UNDER MEPA IS UNQUESTIONABLY TRIGGERED BY THE MPUC'S APPROVAL OF THE NTEC POWER PLANT.

There can be no question that the MPUC's approval of the NTEC proposal falls within the expansive definition of "governmental action" under MEPA: "activities, including projects wholly or partially conducted, permitted, assisted, financed, regulated, or approved by units of government including the federal government." Minn. Stat. § 116D.04, subd. 1a(d). The EQB adopted this definition almost verbatim in its rules. Minn. R. 4410.0200, subp. 33. The MPUC's action in this case – both approving affiliated interest contracts under which Minnesota Power actually builds and runs NTEC and providing the critical determination that NTEC is needed and therefore its costs can be recovered from ratepayers -- clearly qualifies as such a governmental action.

The Appellants argue unpersuasively that this major new power plant is not a “project” under the EQB rules, which define a project as “a governmental action, the results of which would cause physical manipulation of the environment, directly or indirectly. The determination of whether the 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.” Minn. R. 4410.0200, subp. 65.

Appellants are effectively arguing that through this “project” definition the EQB was in fact limiting the scope of the governmental actions to which MEPA applies by introducing a much stricter causality constraint than the EQB (or MEPA) put into the actual definition of governmental actions. This argument fails on multiple grounds.

First, the EQB does not interpret its rules this way: in formally referring the issue to the MPUC, the EQB wrote that “it is our opinion that Minnesota Statute 116D.01 and Minnesota Rules Chapter 4410 apply to the proposed governmental action being considered by the PUC.” (R. 12002).

Second, the definition of project includes governmental actions that “indirectly” cause physical manipulation of the environment, a low threshold which the MPUC’s action certainly exceeds.

Third, the second sentence of this definition indicates that it is focused upon the “physical activity to be undertaken” – in this case, the construction and operation of a

power plant – not the governmental process that approves it. The types of governmental actions covered are already explicitly and broadly defined in the statute and rule under “governmental action.” As discussed above, Appellants’ argument that MPUC’s approvals merely govern an affiliated business relationship rather than “causing” the plant’s construction depends on a mischaracterization of the MPUC’s decision. This argument also seeks to introduce an enormous loophole into MEPA with no legal basis. Technically, the only government actions that actually “cause” the physical manipulation of the environment are actions directly taken by the government, but MEPA also applies to actions assisted, financed, approved, etc., by government, either wholly or partially. Minn. Stat. § 116D.04, subd. 1a(d).

Finally, as the Court of Appeals noted, Minnesota courts interpreting the EQB’s “project” definition focus on whether the activities in question are sufficiently mature and definite to lend themselves to environmental review. (MPUC Add. 9); citing *In re Env'tl. Assessment Worksheet for 33rd Sale of State Metallic Leases*, 838 N.W.2d 212, 217 (Minn. App. 2013), *review denied* (Minn. Nov. 26, 2013); *Minnesotans for Responsible Recreation v. DNR*, 651 N.W.2d 533, 540 (Minn. App. 2002). The NTEC plant is a fully mature and definite proposal and, unlike the cases cited, there will be no future opportunity to review under MEPA the environmental impact of its construction and operation.

IV. SINCE THE MPUC COULD HAVE REJECTED MINNESOTA POWER’S PROPOSAL WITHOUT HAVING VIOLATED THE COMMERCE CLAUSE, IT CAN REVIEW THAT PROPOSAL UNDER MEPA WITHOUT VIOLATING THE COMMERCE CLAUSE.

No party has suggested that if the MPUC had rejected Minnesota Power’s proposal it would have violated the constitution, nor could such an argument be supported. And inherent in the authority to approve or reject the NTEC proposal is the authority to review its environmental implications under MEPA before exercising that authority. The Court of Appeals was entirely correct in finding that MEPA “merely provides a mechanism for informing” the MPUC’s decision, and so it is not precluded by the extraterritoriality doctrine. (MPUC Add. 14).

V. THE MPUC’S FINDING THAT THE NTEC POWER PLANT IS NEEDED AND IN THE PUBLIC INTEREST FAILS ON THE MERITS.

The MPUC’s determination that the NTEC power plant is needed and in the public interest is notable for the lack of evidence supporting it and the amount of evidence undermining it. The Administrative Law Judge (ALJ) found that unreasonable assumptions and constraints and a failure to include a reasonable range of resources in Minnesota Power’s computer modeling had biased it in favor of the NTEC plant, and therefore Minnesota Power failed to demonstrate the plant was needed and reasonable. (R. 11453-11454). The MPUC did not actually reject or dispute the ALJ’s finding that Minnesota Power’s modeling was defective; rather, it decided that the NTEC plant had been shown to be needed and reasonable based entirely upon modeling done by another party to the proceeding, the Department of Commerce. (R. 13238, 13255).

The MPUC interpreted the Department's modeling as showing that NTEC "provides a hedge against spikes in market prices and reduces overall costs." (R. 13255). However, the MPUC's order does not give any indication at all of the size of these potential cost savings, and its finding that NTEC reduces financial risk just spotlights the MPUC's failure to consider the tremendous financial risk posed by future regulations on natural gas extraction and use, discussed in part II above.

Moreover, the Department had testified with respect to market risk that "the level of risk appears to be manageable with the current resource mix." (R. 4604). Based on the Department's testimony the ALJ found that NTEC had not been shown to be needed to mitigate exposure to the energy markets, (R. 11471), and the Department did not take exception to this finding. (R. 11662). The MPUC did not explain why it relied on the Department's testimony to come to the opposite conclusion.

Moreover, the MPUC casually waved away criticisms of the assumptions the Department used in its modeling, stating that "correcting the assumptions would likely not have changed the outcome." (R. 13255). This conclusion runs directly counter to the findings of the ALJ, who found that like Minnesota Power's analysis, the Department's analysis "also used a number of unreasonable assumptions" and that the modeling done by the Clean Energy Organizations (CEOs) "reached different results with more reasonable assumptions." (R. 11454).

Finally, the Department put into its model an artificial constraint on the model's ability to select wind resources over NTEC. The existence of that constraint was revealed after the contested case had concluded, at the MPUC's October 18, 2018 hearing, by the Department's witness Dr. Rakow. He indicated that he added the constraint because he was concerned about limited transmission capacity if too much wind was built, listing "off the top of [his] head" other wind projects in the works. (R. 12899-12900). Without this constraint, Dr. Rakow revealed, the Department's model would not have selected NTEC as an economic option. (R. 12902). However, apart from this statement, there is no evidence in the record supporting the reasonableness of this constraint.

In short, the MPUC decided to greenlight this extraordinarily expensive and polluting project based not on the modeling of the company, which the MPUC did not dispute was defective, but based on the Department's modeling which, but for one critical and unsupported constraint, would not have favored NTEC at all.

VI. UPHOLDING THE COURT OF APPEALS DECISION POSES NO THREAT TO ELECTRICITY SUPPLY OR RELIABILITY.

As noted above, Minnesota Power failed to show that NTEC was needed to meet its system's energy, capacity or reliability requirements. The Department's modeling only found that when adding NTEC, Minnesota Power's overall generation supply costs

went down by some amount versus not adding NTEC,²⁵ and then, only when modeling with the artificial and unsupported constraint on wind power just discussed.

Therefore, nothing in this record suggests that there would be any risk to electricity supply or reliability if the Court upholds the Court of Appeals decision or reverses the MPUC need determination on its merits. Notably, in this proceeding the Large Power Intervenors – a coalition of mining companies, taconite companies, paper companies, and other large industrial customers of Minnesota Power (R. 13237) -- agreed with the ALJ that Minnesota Power had failed to meet its burden of proving that NTEC is needed, reasonable, and in the public interest. (R. 12791). They also argued that there was no urgency to approve the project. (R. 12794).

Moreover, if Minnesota Power still believes NTEC is necessary, it has the opportunity to make its case in its upcoming Integrated Resource Plan, which is currently due on October 1, 2020, (R. 13263), though Minnesota Power has requested a six-month extension.²⁶ In this proceeding Minnesota Power could finally analyze the need for NTEC in a fully integrated and comprehensive proceeding that considers a reasonable range of alternatives -- the “full analysis” the MPUC ordered in 2016, (MPUC

²⁵ “[The Department’s] results indicate that NTEC is being added to MP’s system [by the model] because NTEC’s energy output reduces overall societal costs, not because NTEC is filling a capacity need.” (R. 11658).

²⁶ Minnesota Public Utilities Commission, *In the Matter of Minnesota Power’s 2015 Integrated Resource Plan*, MPUC Docket No. E015/RP-15-690. Letter from Minnesota Power, May 29, 2020.

Add. 61), and which the ALJ found lacking in this docket. (R. 11435). And that analysis could use updated assumptions to reflect changes in electricity demand (due to the current pandemic and the severe economic downturn it has provoked), changes in costs (including ongoing declines in renewable energy costs), and changes in the financial and regulatory risks associated with the growing urgency around climate change.

CONCLUSION

Fresh Energy respectfully requests that this Court affirm the Court of Appeals decision. If this Court does not affirm the Court of Appeals decision, it should remand the merits issue back to it, or alternatively, reverse the MPUC's decision on the merits..

Dated: July 28, 2020

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CERTIFICATE OF COMPLIANCE

This brief complies with the word limitations and typeface requirements of Minn. R. Civ. App. P. 132.01, subd. 3. It was prepared with a 13-point proportional font, using Microsoft Word. The text of the brief, not including the cover page, Table of Contents or Table of Authorities, is 6951 words.

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