

From: [Richard Hilton](#)
To: [Staff, CAO \(PUC\)](#)
Subject: Re: Public Comment - Docket E015/CN-25-111 Richard Hilton
Date: Tuesday, July 21, 2026 12:26:24 PM
Attachments: [Hilton PUC Comment FINAL 7 13 26 .pdf](#)

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I recently submitted a document regarding the Iron Range-St. Louis County- Arrowhead (ISA) 345kV transmission project. I accidentally sent my draft version.

No information was changed, just some punctuation changes, and spelling corrections.

I respectfully request that the attached document in this email replace my earlier comment and the previous submission be disregarded.

Thank you for your consideration

- Richard Hilton

On Mon, Jul 13, 2026 at 10:53 AM Richard Hilton <richmhilton@gmail.com> wrote:

Please find my attached public comment regarding the Iron Range-St. Louis County- Arrowhead (ISA) 345kV transmission project.

I respectfully request that the attached document be included in the official docket record.

Thank you for your consideration.

Richard Hilton

PUBLIC COMMENT OF RICHARD HILTON

Iron Range - St. Louis County - Arrowhead 345-kV Transmission Project

Certificate of Need Docket E015/CN-25-111

A technical public-interest comment regarding demonstrated need, large-load assumptions, ratepayer protection, the Arrowhead 800-MVA condition, and reasonable alternatives.

Prepared for filing with the Minnesota Public Utilities Commission July
2026

Executive Summary

This comment does not assume that regional transmission is unnecessary, nor does it claim that the ISA project exists solely to serve a proposed data center. Instead, it asks the Commission to require current, project-specific evidence before approving a long-lived and costly transmission investment.

The central questions are direct: Who is creating the need? Who receives the principal benefits? Who ultimately pays?

Minnesota Power's reported annual system peak was 1,589 MW in 2015 and 1,599 MW in 2024 - a net increase of approximately 0.6 percent over nine years. The utility's own high-growth planning scenario, by contrast, rises sharply because it adds prospective electrification, industrial expansion, and data-center demand. This distinction does not disprove regional need, but it makes transparent scenario analysis essential.

The ISA filing also seeks removal of a longstanding 800-MVA limitation at the Arrowhead interface. The prior HVDC contested-case record describes that condition as an intentional regulatory limit associated with west-to-east flows and environmental concerns. The ISA applicants state that MISO's planned benefits cannot be fully obtained while the limit remains. That issue deserves independent findings, not treatment as a minor technical amendment.

Accordingly, the Commission should not issue an unconditional Certificate of Need unless the applicants quantify: (1) the reliability violations ISA corrects; (2) whether ISA remains needed without proposed data centers and other uncertain large loads; (3) the standalone benefits and costs of ISA; (4) Minnesota residential bill impacts; (5) protections against stranded costs; (6) the distribution of benefits among Minnesota, Wisconsin, and the broader MISO region; and (7) why smaller, staged, or controllable alternatives are inadequate.

Requested Commission Action

- Require updated modeling for ordinary forecast, committed-load-only, no-data-center case, and high growth cases.
- Require a public estimate of Minnesota Power's allocated cost and typical residential bill impact.
- Require modeling for residential only needs.
- Require enforceable customer protections if large loads materially affect project size or timing.
- Require a project-specific explanation and evidentiary basis for eliminating or modifying the Arrowhead 800-MVA condition.
- Require a standalone ISA benefit-cost analysis and geographic allocation of benefits.
- Require a meaningful alternatives analysis and a re-opener if cost, load, generation, or timing assumptions materially change.

1. Personal Interest and Basis of Knowledge

My name is Richard Hilton. I live in Hermantown, I am a Minnesota Power customer, and I reside in the community where the proposed project would expand the St. Louis County Substation and use transmission corridors near homes and businesses. My household may be affected both by the physical infrastructure and by the electric rates used to recover project costs.

I also have closely followed the proposed Hermantown data center because it could become an unusually large load in Minnesota Power's service territory. My concern is not based on opposition to transmission or data centers as categories. It is based on whether permanent infrastructure is being justified with transparent assumptions and whether ordinary customers are being protected from costs created by speculative or customer-specific demand.

As an ICU nurse, I am accustomed to decisions that require objective evidence, alternative analysis, and a clear relationship between intervention, benefit, and risk as well as the persons affected being able to make a fair decision based on all information available. I do not claim utility-engineering expertise. I do believe a project expected to operate for generations should be supported by evidence that can be independently reviewed.

2. The Certificate of Need Inquiry Must Be Project-Specific

Minnesota Rule 7849.0120 directs the Commission to consider the probable result of denial, the accuracy of demand forecasts, conservation, alternatives, socioeconomic factors, and effects on the natural and human environment. Minnesota Rule 7849.0400 permits conditions or modifications to a certificate. These standards require more than a showing that additional transmission could produce some benefit.

The stated rationales for ISA include reliability, congestion relief, changing generation patterns, regional transfer capability, and load growth. Those are distinct. A mandatory reliability violation is not the same as an economic opportunity to reduce congestion. Ordinary customer growth is not the same as a prospective hyperscale data center load. The Commission should require each claimed need to be quantified separately.

3. Historical Demand Does Not Show Extraordinary Organic Growth

Minnesota Power's 2025 Annual Electric Utility Forecast Report provides the following annual system peaks. Over 2015-2024, the reported peak increased from 1,589 MW to 1,599 MW. The 2024 value was about 190 MW below the 2017 peak and about 219 MW below the 2014 peak of 1,818 MW.

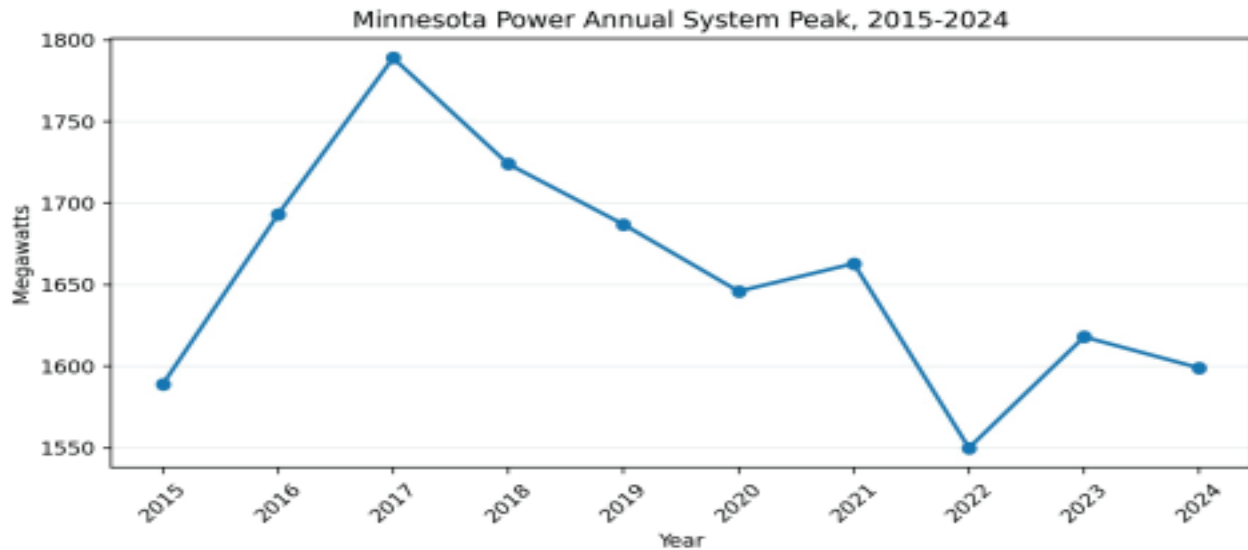


Figure 1. Minnesota Power annual system peak, 2015-2024. Source: Minnesota Power 2025 Annual Electric Utility Forecast Report, Figure 24.

Year	Annual system peak (MW)
2015	1,589
2016	1,693
2017	1,789
2018	1,724
2019	1,687
2020	1,646
2021	1,663
2022	1,550
2023	1,618
2024	1,599

This history does not establish that ISA is unnecessary. Transmission needs can arise from geographic shifts in generation, contingency performance, or regional power flows even when retail peak demand is flat. It does establish that extraordinary growth among existing Minnesota Power customers is not evident in the ten-year peak record.

4. The High-Growth Case Is Driven by Added Large Loads

Minnesota Power separately presents a 'Load Growth Forecast Planning Scenario.' The report explains that the scenario reflects possible electrification, industrial expansion, and data centers. It

describes data centers ranging from 100 MW to more than 1,000 MW and characterizes them as high-load-factor facilities.

In that scenario, winter 'net load added' rises from 58 MW in 2025 to 1,080 MW in 2032 and 1,436 MW in 2039. The projected annual system peak rises from 1,599 MW in 2024 to 2,633 MW in 2032 and 2,965 MW in 2039. The dramatic growth therefore appears in an added-load planning scenario, not in the historical trend. Where is this projected load coming from, and are residential customers disproportionately paying for it?

Year	Winter net load added (MW)	Projected annual system peak (MW)
2025	58	1,602
2027	220	1,766
2029	530	2,080
2032	1,080	2,633
2039	1,436	2,965

The Commission should distinguish signed, financially secured customer commitments from requests, inquiries, competing-site studies, and projects that may be delayed, reduced, or cancelled. The public record should show whether the proposed Hermantown data center or other specific data-center loads were included in ISA modeling and how materially they affect project selection, voltage, timing, or benefits.

Required scenario comparisons

- Ordinary Minnesota Power forecast without new data centers.
- Committed-load-only case using binding agreements and adequate security.
- Case including the proposed Hermantown data center, with assumed MW and ramp schedule disclosed in aggregated form.
- High-growth case with all prospective large loads.
- Sensitivity cases in which 25 percent, 50 percent, and 100 percent of prospective large loads fail to materialize.

5. Ratepayer Protection Should Be Addressed First

Regional cost allocation does not mean Minnesota customers pay nothing. Transmission revenue requirements are ultimately recovered through rates. Before approval, the public should receive a reasonable estimate of Minnesota Power's allocated share, annual revenue requirement, and the monthly and lifetime bill effect for a typical residential customer.

If new very large customers materially increase the size or accelerate the timing of ISA, the incremental costs attributable to those customers should be identified. Existing residential customers should be protected. The Commission should not assume either that residential customers will bear the full project cost or that customer-specific safeguards automatically protect them. It should require the applicants to show the actual cost pathway.

- Total current project estimate and escalation range.
- Minnesota Power's allocated share under applicable MISO cost allocation.
- Estimated monthly impact on a typical residential bill.
- Treatment of financing, return on equity, operations, maintenance, and cost overruns.
- Responsibility if a major load is delayed, downsized, or cancelled.
- Whether any large-load tariff, agreement, deposit, or guarantee prevents stranded-cost shifting.

6. Removal of the Arrowhead 800-MVA Condition Is a Central Issue

The ISA summary states that the project, as planned by MISO, would produce flows through the Arrowhead interface into Wisconsin above the existing 800-MVA limitation and that the limitation must be removed to realize identified project needs and benefits. This makes removal of the condition part of the project's functional purpose, not a minor housekeeping change.

The 2024 administrative-law-judge report in Minnesota Power's HVDC modernization proceeding describes the 800-MVA condition as having been imposed by the Minnesota Environmental Quality Board in the March 2001 Arrowhead-Weston proceeding. The report recounts commissioner discussion of west-to-east power flows and environmental consequences, including mercury, and states that commissioners present unanimously adopted the limitation.

That report involved a different project and does not decide ISA. It does show why the Commission should make independent findings on the original condition and the consequences of removing it.

- Why was the limit imposed, and which original concerns remain relevant?
- What normal, peak, and emergency flows are expected after ISA?
- How often and by how much would flows exceed 800 MVA?
- What proportion of the added transfer serves Minnesota load versus Wisconsin or broader MISO transfers?
- Can a phase-shifting transformer, flow-control device, modified cap, or limited emergency exception meet demonstrated reliability needs?
- Does removal enable later projects or large loads not fully evaluated in this docket?

7. The HVDC Record Shows the Benefit-Shifting Concern Is Concrete

In the HVDC modernization contested case, the ALJ rejected an ATC alternative after finding, among other things, that it would improve ATC infrastructure for Wisconsin customers while being paid for by Minnesota Power customers. The report also discussed how changing the interconnection could make the path into Wisconsin more attractive and reduce flow-control capability.

Those findings are not transferable conclusions about ISA. They are a reason to demand an ISA specific accounting of beneficiaries, cost allocation, flow direction, and control capability.

8. Portfolio Approval Does Not Substitute for ISA-Specific Evidence

MISO approved ISA as part of the Tranche 2.1 portfolio. MISO describes that portfolio as primarily reliability-based and reports a portfolio benefit-cost range of approximately 1.8 to 3.5. MISO materials list the Iron Range-Arrowhead project at approximately \$428 million with a 2032 target.

A portfolio-wide result does not by itself show the standalone economics of each component. The Commission should request an ISA-specific benefit-cost analysis, or the closest available project level decomposition, including production-cost savings, congestion relief, avoided reliability upgrades, loss reductions, resilience, and geographic distribution of benefits.

- Each modeled reliability violation and contingency corrected by ISA.
- The first year each violation appears and the severity of the violation.
- Whether the violation occurs under ordinary forecasts or only high-growth assumptions.
- Dependence on generator-retirement assumptions.
- Whether no-data-center and committed-load-only cases still select the same project.
- ISA-specific annualized cost and project-level benefits by state or pricing zone.

9. Alternatives Should Be Compared to the Proven Need

The proper question is not which option creates the greatest transfer capability. It is which reasonable alternative meets the demonstrated need with appropriate cost, environmental impact, and ratepayer protection.

- Targeted 230-kV rebuilding or reconductoring.
- Substation and transformer upgrades.
- Advanced conductors and dynamic line ratings.
- Power-flow controllers or phase-shifting transformers.
- Remedial action schemes and operating controls.
- Strategically located storage.
- Demand response and enforceable large-load curtailment.
- Staged construction tied to verified demand.
- A smaller initial facility with later expansion if need materializes.
- Retention or modification of the 800-MVA condition.

These measures may not replace ISA individually or collectively. The applicants should nevertheless quantify why they are insufficient, rather than dismissing them because they provide less maximum transfer capability.

10. Likely Counterarguments and Why the Requested Review Still Matters

Likely response	Why further evidence remains appropriate
Flat demand does not eliminate a regional transmission need.	Agreed. The comment does not claim otherwise. It asks the applicants to identify the specific non-load-growth reasons and show that ISA remains the reasonable solution under current assumptions.
MISO selected ISA through a regional process.	Agreed. MISO selection is important evidence, but the Minnesota Certificate of Need process still requires state findings on need, alternatives, impacts, and the public interest.
Costs are regionally allocated, not assigned solely to Minnesota Power.	Agreed. That is why the Commission should disclose the actual Minnesota allocation and bill impact rather than relying on either extreme assumption.
Data centers may not have been the reason ISA was originally selected.	That may be true. The appropriate response is to disclose the load assumptions and run scenarios with and without large loads, not to infer causation but to show proof to residential customers.
The 800-MVA condition may be outdated.	That is possible. The applicants should identify what changed, quantify the consequences of removal, and compare controllable or modified alternatives.

11. Any Approval Should Include a Review Checkpoint

Because transmission planning and construction span years, material assumptions may change before substantial construction begins. Any certificate should require supplemental review or a reopener if the cost rises materially, a major assumed load fails to commit, generation-retirement dates change, another transmission project alters flows, or the in-service date is substantially delayed.

A practical condition would require the applicants to submit, before major construction, updated MISO confirmation that ISA remains needed using current costs, committed loads, and generation assumptions.

12. Requested Findings and Conditions

1. Identify the specific reliability, congestion, transfer, generation-transition, and load-growth components of need separately.
2. Provide no-data-center, committed-load-only, and high-growth modeling.
3. Disclose whether and how the proposed Hermantown data center affects ISA.
4. Provide Minnesota Power's estimated cost share and residential bill impact.
5. Demonstrate enforceable protection from large-customer stranded costs.
6. Quantify ISA benefits to Minnesota, Wisconsin, and the broader MISO region.
7. Provide project-specific or decomposed benefit-cost evidence.
8. Explain the legal, technical, environmental, and economic basis for removing or modifying the 800-MVA condition.
9. Evaluate controllable, staged, lower-voltage, and non-wires alternatives.
10. Require a reopener for material changes before construction.

Conclusion

I recognize that the electric system is changing and that additional regional transmission may be necessary. I also recognize that historical demand alone cannot resolve a regional planning question.

But the public record should clearly show who creates the need, who receives the principal benefits, and who ultimately pays. If ISA would be required at the same size without proposed data centers, the applicants should demonstrate that. If very large loads materially increase project size or timing, the corresponding costs and risks should be assigned appropriately. If removal of the 800-MVA condition primarily expands interstate transfer capability, the Commission should quantify the beneficiaries and alternatives before removing a 25-year-old public-interest condition.

I respectfully request that the Commission withhold unconditional approval until the applicants provide current, project-specific, and independently reviewable evidence that ISA is necessary, reasonably sized, cost-effective, superior to reasonable alternatives, and protective of Minnesota residential ratepayers.

Respectfully submitted,

**Richard Hilton
Hermantown, Minnesota
Minnesota Power customer**

Sources and Record Materials

- 1. Minnesota Rules 7849.0120 and 7849.0400.** <https://www.revisor.mn.gov/rules/7849/> **2.**
Minnesota Statutes section 216B.243. <https://www.revisor.mn.gov/statutes/cite/216B.243>
- 3. Minnesota Power, 2025 Annual Electric Utility Forecast Report, reproduced as Appendix H in the Maple River-Cuyuna Certificate of Need application.**
https://mrctransmissionproject.com/wp-content/uploads/2026/02/9_Appendix-H-Annual-Electric-Utility-Forecast-Reports-PUBLIC.pdf
- 4. ISA Certificate of Need Summary of Filing.**
https://isatransmissionproject.com/wp-content/uploads/2026/01/01_Summary-of-Filing.pdf
- 5. ISA application appendices and notice materials.** https://isatransmissionproject.com/wp-content/uploads/2026/01/2_Apps-A-through-D.pdf
- 6. MISO, LRTP Tranche 2.1 final portfolio overview and MTEP24 materials.**
<https://www.misoenergy.org/planning/long-range-transmission-planning/>
- 7. MISO System Planning Committee MTEP24 Preview (lists Iron Range-Arrowhead at approximately \$428 million and 2032).**
<https://cdn.misoenergy.org/20241030%20System%20Planning%20Committee%20of%20the%20BOD%20Item%2003b%20MTEP24%20Preview655620.pdf>
- 8. Minnesota OAH, Findings of Fact, Conclusions of Law, and Recommendation, Minnesota Power HVDC Modernization Project, June 21, 2024.** https://mn.gov/cah/assets/2500-39600-minnesota-power-hvdc-modernization-project-puc-certificate-need-route-permit-report_tcm19-628395.pdf
- 9. Minnesota PUC announcement regarding HVDC modernization approval.**
<https://content.govdelivery.com/accounts/MNPUBUC/bulletins/3ac60bb>