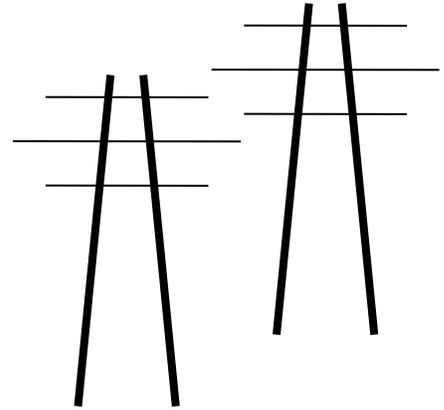


Legalelectric, Inc.

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January 10, 2022

Charley Bruce
Public Advisor
Minnesota Public Utilities Commission
121- 7th Place East, Suite 350 via eDockets and email: publicadvisor.puc@state.mn.us
St. Paul, MN 55101

RE: Comments of Carol A. Overland – Legalelectric
In the Matter of the 2021 Minnesota Biennial Transmission Projects Report
PUC Docket No. E-999/M-21-111

Dear Mr. Bruce:

Thank you for the opportunity to submit these comments on the 2021 Minnesota Biennial Transmission Projects Report. find Overland Response to Xcel Objection to Overland Petition for Intervention. I am also serving this on all parties by filing this via the eDockets system.

After doing what lobbying I could to institute the Biennial Transmission Plan so that it would be easier to track transmission planning – not everyone could attend the MAPP meetings back then – I’ve been attending meeting and submitting comments as time allows. It’s been over 20 years since I first participated in transmission proceedings, then before the Environmental Quality Board, and since the 2005 legislative session changes, before the Public Utilities Commission. I’ve been cleaning out my office, scanning in old filed, posting some for posterity, and am stunned to see how the utilities, and in particular, Xcel Energy, have rammed through so many transmission projects.

Back in those first transmission proceedings, the initial Chisago transmission application I believe in 1996, and the Arrowhead transmission line circa 1999-2004, intervenors and participants learned that “need” was a term of art, and that utilities initially were required to demonstrate electrical need, reliability, focused on n-1 contingencies, as defined by NERC¹.

Definition of Reliability

NERC defines the reliability of the interconnected bulk electric systems in terms of two basic, functional aspects:

1. Adequacy — The ability of the electric system to supply the aggregate electrical demand and energy requirements of the customers at all times, taking into account scheduled and reasonably expected unscheduled outages of system elements.
2. Security — The ability of the electric system to withstand sudden disturbances such as electric short circuits or unanticipated loss of system elements.

¹ 1999 NERC Reliability Assessment, p. 9: <https://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/99ras.pdf>

Transmission Reliability, Transmission Need Claims, and Reduction of Fossil Generation

NERC retains these definitions to this day². One of the claimed benefits of the massive transmission build-out in the last 20 years, particularly CapX 2020, MISO MVP portfolio of 17 projects, and the Great Northern Transmission Line, was that with all this interconnecting transmission, reserve margins, in MISO typically 15%, could be lower due to availability of generation from other areas. Unfortunately, the recent NERC reports have instead instituted higher reserve margins!

Higher reserve margins make no sense, given the billions of dollars, hundreds of miles, and thousands of megawatts of capacity added to the system. This also makes no sense with the increased construction and utilization of on-site distributed solar (we have it on our home here!). It also makes no sense given the claimed climate-change closure of fossil fuel generation, freeing up capacity on transmission lines.

But wait... the NERC report, based on information provided by the utilities, shows virtually zero decline in projected coal and gas generation See Attachment A, 2021 NERC Reliability Assessment (2021 Transmission Report filing only includes NERC 2020 Reliability Assessment as Report filed before NERC release)³:

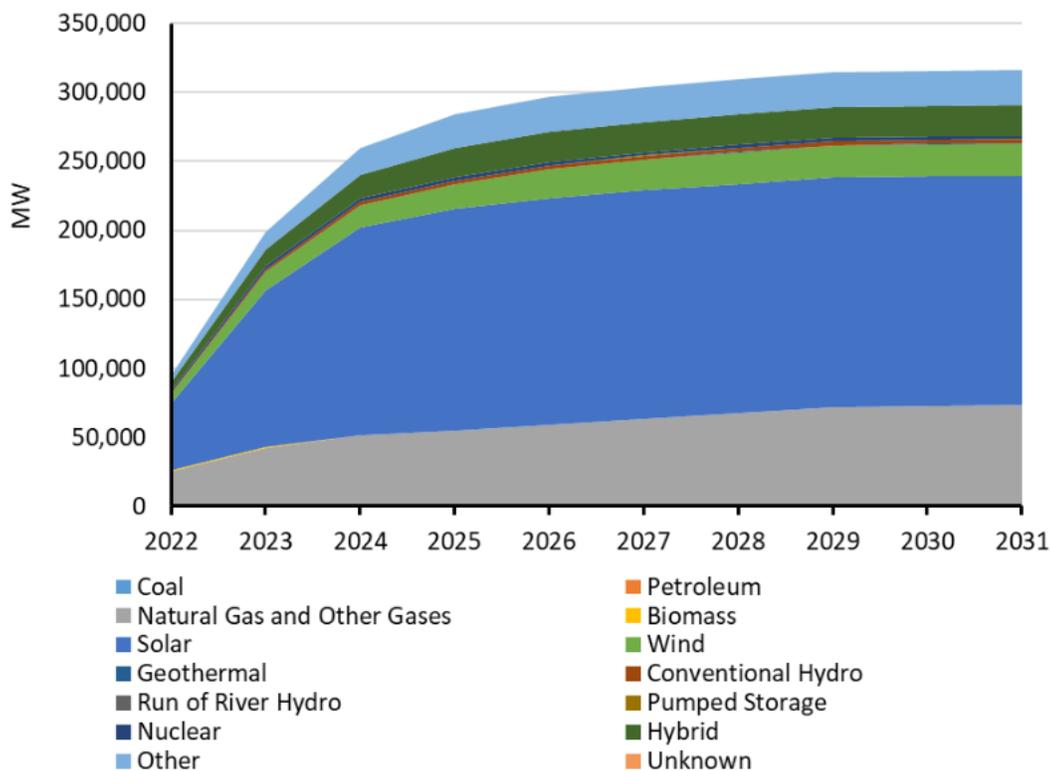


Figure 13: Tier 1 and 2 Planned Resources Projected Through 2031

² 2021 NERC Reliability Assessment, p. 11:

https://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/NERC_LTRA_2021.pdf

³ Id., p. 30.

This NERC finding showing little decrease in fossil fuel generation is replicated a few pages later⁴:

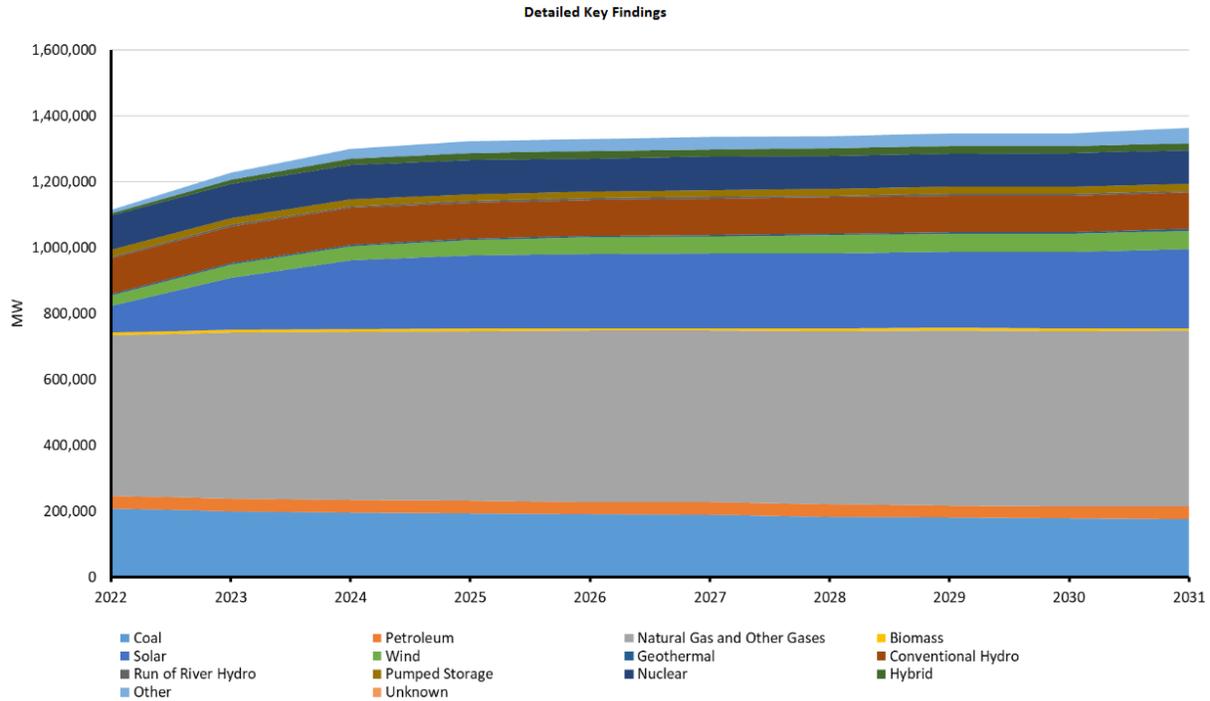


Figure 16: Existing, Tier 1, and Tier 2 Planned Resources Projected Through 2031

These charts raise a capacity question – if these fossil generation plants remain on-line, taking up generation capacity, if they’re shuttered, doesn’t that open up significant transmission capacity? The NERC Reliability Analysis does not address this, nor does the 2021 Biennial Transmission Report. Any claim of need for transmission at this time is not supported by examination of available transmission capacity as/if fossil plants go offline.

2021 Biennial Transmission Report Does Not Include Links to Transmission Studies, Fails to Address Retired Generation, Fails to Incorporate NERC Reliability Assessment into the “Transmission Studies” Section, and Uses MTEP in Attempt Justify Unnecessary Transmission.

Section 3 of the Report, “Transmission Studies,” is deficient because there are only vague descriptions, and no links. Further, the Report has not been updated to include MTEP21. See Attachment B, MTEP21, released December 15, 2021.

The Report says the CapX2050 Transmission Vision Study “full report is available at: <https://gridnorthpartners.com>.” I’d couldn’t find it – needed help, and there it is, under “Resources”⁵ (the section on “voltage regulation” doesn’t mention that line loss is an inherent problem with long transmission lines... sigh...). Nothing specific here, nada... and this was March 2020, and nothing since. We know they’re waiting to pounce, but proposing what?

⁴ Id., p. 34.

⁵ https://gridnorthpartners.com/wp-content/uploads/2021/02/CapX2050_TransmissionVisionReport_FINAL.pdf

The list of “Completed Studies found in section 3.2, p. 23-24, has no links for the balance of those studies. These studies must be made available for review to address the viability and credibility of the plan.

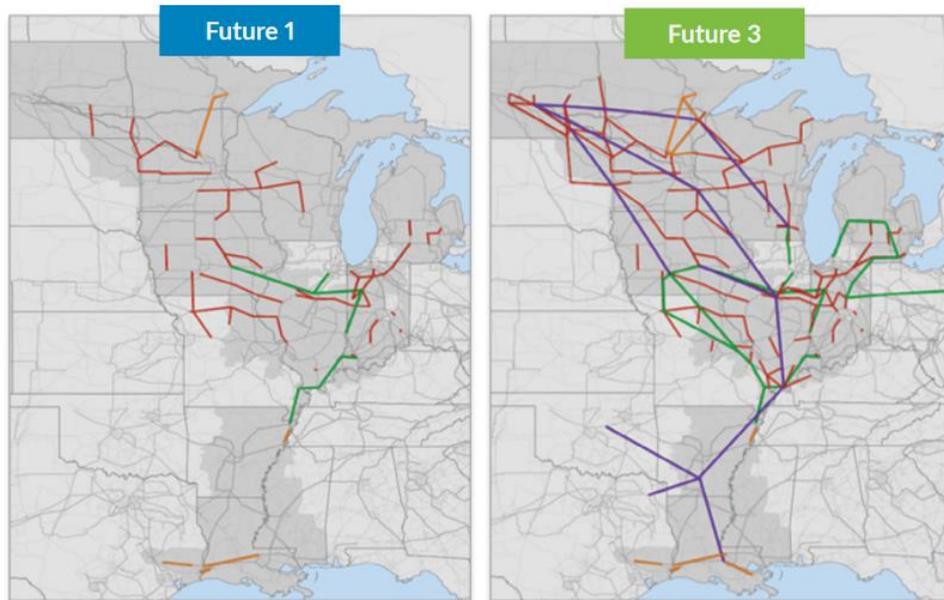
An important factoid found in the Transmission Report that cannot be overstated is found in Section 3.2, which explains the lack of benefits that would be provided by a transmission overlay – even those with an inherent economic interest in proposal and development of transmission plans, and in building transmission, could not support regional transmission:

MISO started a Regional Transmission Overlay Study (RTOS) in 2016, but due to limited benefits identified in the study MISO has put the study effort on hold.

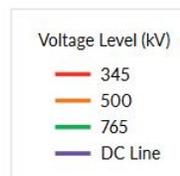
Id., p. 25.

However, in Section 3.3.1, MISO Transmission Expansion Plan, it’s clear that “Transmission Expansion” is indeed the focus. Despite the RTOS failure to find benefits sufficient to support regional transmission, the MTEP21, like Grid North Partners, has a very different notion, promoting, planning, for a huge regional transmission expansion across the Midwest! See MTEP21, p. 12:

Indicative ‘Roadmaps’ (as of June 2021)

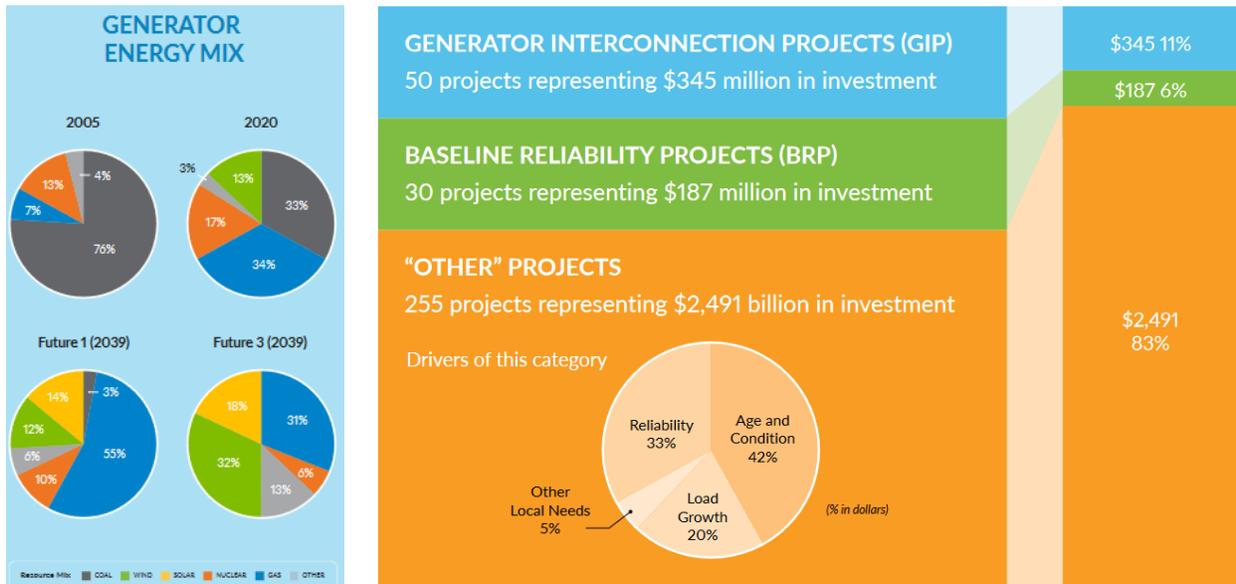


Indicative ‘Cost to Achieve’* (\$billion)	Future 1	Future 3
New Generation/Resources	+/- 135	+/- 430
New Transmission Solutions	+/- 30	+/- 100
Total New Investment	+/- 165	+/- 530



* Initial ‘indicative’ investment cost estimates expressed in 2020 dollars; generation additions thru 2039 are 121 GW in Future 1, 330 GW in Future 3; generation costs from EGEAS modeling; transmission solutions cost from MISO transmission cost estimating tools.

MTEP 21 also takes a very different view of generation mix than that found in the NERC Reliability Assessment, as shown above. From MTEP21, pps 2 & 4, the charts below claim to show generation mix and justification for new projects, but note that while the maps on the previous page of this comment show “new generation” and “new transmission” there is absolutely zero notation of “retired generation,” which if as much as the “Generator Energy Mix” pie charts show, would free up much transmission capacity. How much? This plan should address that.



A full 83% of the projects proposed in MTEP21 are “other” projects, not necessary for generation connection or for “Baseline Reliability.” In MISO’s “West” area, which includes Minnesota, and the Dakotas, Iowa, and half of Wisconsin, fully \$931 million out of \$1,100 in projects are “other: projects:

(\$ in Millions)

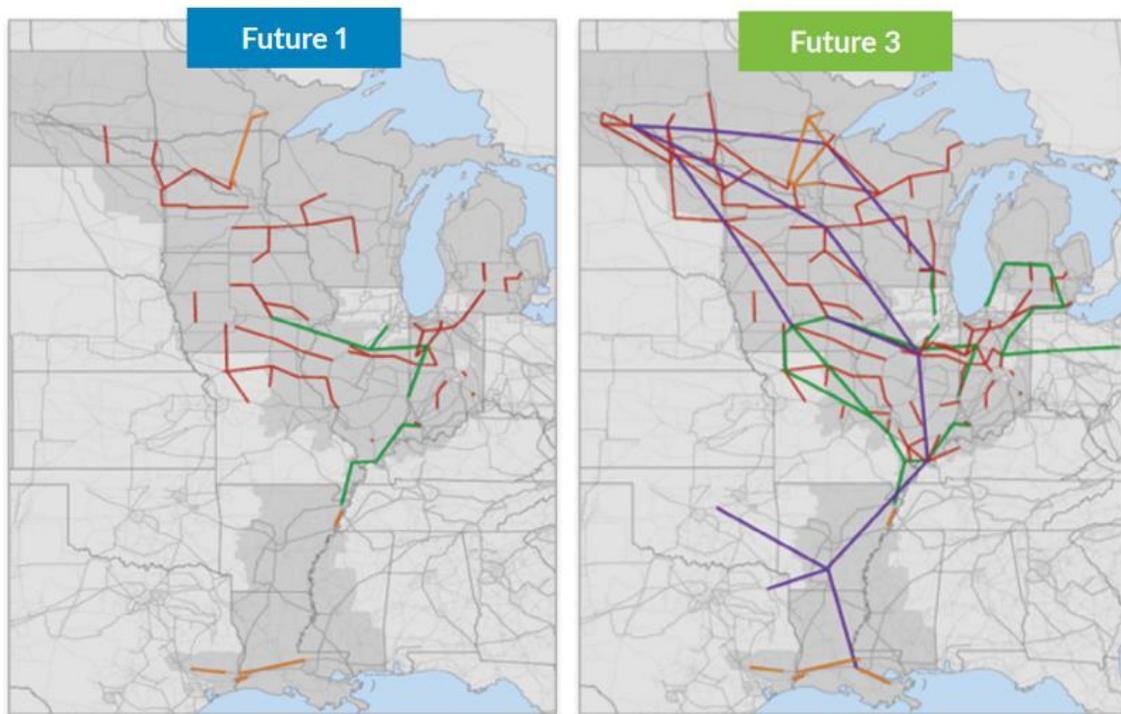
Planning Region	GIP	BRP	Other	Total
West	\$137	\$31	\$931	\$1,100
East	\$125	\$50	\$331	\$506
Central	\$57	\$43	\$606	\$706
South	\$26	\$62	\$624	\$712
Total	\$345	\$187	\$2,491	\$3,023

The claim of “load growth” is patently absurd, because in addition for the MTEP’s failure to account for generation retirement, system load growth has not yet passed the 2006-2007 peak!

The Transmission Report’s Section 3.4, Load Serving Studies, is again deficient, as there are no links to the studies, although by the timeline in the chart, p. 25-27, at least some of these studies are complete.

Clues to Xcel’s transmission plans can be found in rate case testimony of Ian. R. Benson, with descriptions of Asset Renewal Programs and details on specific projects. See Attachment C, Testimony of Xcel’s Ian R. Benson, pages 37-86. Other utility rate case itemizations should be reviewed for characterizations and mischaracterizations consistent and/or inconsistent with NERC 2021 Reliability Assessment, the MISO 2016 RTOS study which failed to support or justify regional transmission, and this MISO MTEP2021, released in mid-December, 2021. We’ll see if they steamroll us and pave these transmission highways!

Indicative ‘Roadmaps’ (as of June 2021)



Indicative ‘Cost to Achieve’* (\$billion)	Future 1	Future 3
New Generation/Resources	+/- 135	+/- 430
New Transmission Solutions	+/- 30	+/- 100
Total New Investment	+/- 165	+/- 530

Voltage Level (kV)	
Red line	345
Orange line	500
Green line	765
Purple line	DC Line

* Initial ‘indicative’ investment cost estimates expressed in 2020 dollars; generation additions thru 2039 are 121 GW in Future 1, 330 GW in Future 3; generation costs from EGEAS modeling; transmission solutions cost from MISO transmission cost estimating tools.

The Transmission Report fails to preview this massive transmission build-out, much of which would be in Minnesota. Noting where most of the Minnesota lines begin to the west, it’s hard to imagine that the purpose is anything other than facilitating continued shipment of Dakota’s coal generation to the east and south, through Minnesota.

Section 4, Public Participation

Regarding public participation, the Transmission Report misstates the possibility of public participation in transmission planning, in this grotesquely false paragraph:

4.2 MISO Transmission Planning

As has been described in previous biennial reports and again in this report, most transmission planning is now conducted through the MISO. MISO provides numerous opportunities for the public to be involved in transmission planning. The reality is, however, that not many members of the general public avail themselves of these opportunities. It is understandable, because transmission planning is an extremely technical endeavor.

2021 Biennial Transmission Report, p. 28. Transmission planning is not rocket science, and with a little study, even attorneys can understand. I regularly attended MAPP transmission planning, but since the shift from MAPP to MISO, I've tried to attend MISO transmission planning and have been utterly unsuccessful. The last time I attempted, it required hours to jump through MISO's arbitrary hoops. I'd first executed MISO's "Critical Energy Infrastructure Information General Non-Disclosure Agreement" on 1/23/2017, but was rebuffed with the FALSE claim that because the planning meetings involve use/viewing of the transmission map, that it's "Critical Infrastructure Information" and that FERC had to bless me with CEII status. I have been refused participation based on this false claim that FERC had to confer CEII status.⁶ This was most recently in 2017. I next contacted Tonya Johnson at FERC (202) 502-8389, who instructed me to file a CEII Request Form to obtain a copy of the map, which would provide inherent "authorization" to attend the meeting as I would have a FERC copy of the CEII material, and this request was filed 3/15/2017. I have retained these emails and contemporaneous notes demonstrating the falsity of the MISO claims an unreasonable restriction from attending meetings. FERC's Leonard M. Tao, Director, Office of External Affairs, issued me a copy of the MISO map on 4/16/2016, yet MISO still refused me participation. MISO later claimed that this FERC blessing must be renewed annually! Since that time, I've not tried again, though with the announcement of the "Grid North Partners" latest transmission build-out in the offing, I'm tempted. I'm also tempted to send MISO a bill for the hours it took to wade through this mess in 2017, and STILL not be allowed to attend.

In the Transmission Report's use, in Section 4.4.1, of the Plymouth-Area Power Upgrade MPUC Tracking Number 2017-TC-N6 as an example of "public participation" is a bit of a hoot. This "Plymouth" project grew out of Xcel's Hollydale Project, and as with the Highwatha Transmission Project, use of a transmission "solution" to a distribution problem. In the case of Hollydale, there was a failed attempt to claim "need" for a transmission line to the west through Medina to address distribution issues along Highway 55 in Plymouth! Xcel withdrew that application when it became apparent that the ruse was clear and that they'd not be able to demonstrate "need" for that project. Following withdrawal of that project, Xcel did additional

⁶ Via email from Renee Wharton 1/27/2017 stating meeting was closed, open only to MISO members or Market Participants, and later email 3/13/2017 by Alison Archer (aarcher@misoenergy.org) and follow up phone call with Alison Archer (651) 632-8435 on 3/14/2017.

electrical studies focused on upgrading the distribution system, where many lines and transformers were 13.8 kV and could easily be upgraded to 34.5 kV to provide increased capacity. Lo and behold, Xcel's studies, linked and available, proposed several ways of upgrading the distribution system, a reasonable approach to distribution capacity issues. From the Transmission Report, here are those "solutions," which did find a publicly acceptable option:

At these two public open houses, Xcel Energy presented information about the three electrical alternatives (Alternatives A-C) that Xcel Energy has identified to help solve Plymouth's identified electrical needs. A summary of these three alternatives is provided below:

- Alternative A: construct a new Pomerleau Lake Substation south of Schmidt Lake Road and west of I-494, construct two new 34.5 kV distribution feeders from this substation to the west, reinforce existing feeders and extend one existing 13.8 kV feeder from the Parkers Lake Substation, and install approximately 12 pad-mounted transformers.
- Alternative B: expand Parkers Substation near I-494 and County Road 6, construct two new 34.5 kV feeders from the Parkers Lake Substation to the west, reinforce existing feeders and extend one existing 13.8 kV feeders from the Parkers Lake Substation, and install approximately 12 pad-mounted transformers.
- Alternative C: expand existing Hollydale Substation and build three new 13.8 kV feeders from the Hollydale substation, construct new Pomerleau Lake Substation, extend the existing 69 kV line 0.7 miles from Hollydale to Pomerleau Lake and re-energize the Hollydale-Pomerleau Lake 69 kV line, keep the Medina-Hollydale 69 kV line energized, reinforce existing feeders and extend one existing 13.8 kV feeder from Parkers Lake Substation.

All three of these options met the immediate, near-term, and long-term load-serving needs of Plymouth. Maps of each of these three alternatives were available to the public.

Had Xcel proposed distribution upgrade solutions to its distribution problems initially, they wouldn't have had to go through the uproar of the Hollydale project. I hope lesson learned.

Arrowhead substation and transmission line

A search of the Transmission Report shows many references to the Arrowhead transmission line and Arrowhead substation.

Are you all mindful of the capacity limitation on the Arrowhead substation and transmission line?

10. Minnesota Power shall apply to the Minnesota Environmental Quality Board under section 116C.57 for authorization to make any changes in the Arrowhead substation that would allow Minnesota Power to increase the capability of the substation to transmit power over the transmission line beyond 800 MVA.

EQB Order Point 10, Arrowhead Exemption Order, March 19, 2001.

The Transmission Report should cite this limitation when discussing expansion of capacity and

changing of transformers for the Arrowhead substation, and address application to the PUC now having jurisdiction as it plans to increase capacity.

Overall Consistency of Biennial Transmission Report

The Commission should compare the projects proposed and the long range planning detailed, and planning hinted at, with the 2021 NERC Reliability Assessment and MISO's MTEP21. The Commission should be particularly aware of the NERC Reliability Assessment's estimate of generation sources and compare with State and utility estimates of fossil retirement – the utilities are the source of the NERC data!

Commerce-DER Comments are specific and should be noted

DER's Comments are important, most importantly in the repeated statements that transmission improvements are not required. We constantly hear the mantra, "It's for WIND!" and "It's for SOLAR!" as a claim for need for transmission, but as DER notes, "Thus, it appears that significant additional transmission investment for the purposes of the RES is not required." DER Comment, C.3., pps. 5-6. Well, DOH!

DER's section on "Mitigation Costs" is also important, because it addresses the discrepancies between CoN declared/estimated costs and actual "as built" costs to "avoid poor decisions and higher system costs (this discrepancy is also present in the rate case Xcel filings, with extreme increases, a la Monticello rehab.). Allocation of those costs between ratepayers generally and/or a "a smaller group of customers, based on the entity requesting such enhancement or optional mitigation," is an issue, particularly since the abandonment of transmission "cause cost = pays" allocation scheme. DER also raises the issue of allocation of "optional" undergrounding to all ratepayers, bound to be an issue with climate-change related extreme storms taking out parts of the system, which could be avoided through undergrounding.

I firmly agree with the request that utilities provide:

- a summary of all mitigation measures that have been added at any step in the permitting process,
- the general reason for the mitigation measure, including whether the measure was requested or required,
- the entity requesting or requiring the mitigation, and
- the cost of the mitigation measure.

DER Comment, p. 8.

Over the last 25+ years, I've been arguing that transmission is not needed, at least not needed for the reasons utilities claim, and at best it is wanted. Along this line, the Commission should pay particular attention to DER's Attachment 1, Information Request No. 1, where each utility responds "NONE" to the request to "[p]lease list all areas where historical demand has been greater than the supply capability after a single contingency occurs." EVERY ONE OF THE TWELVE UTILITIES STATES THAT THERE ARE NO AREAS WHERE HISTORICAL DEMAND HAS BEEN GREATER THAN THE SUPPLY CAPABILITY AFTER A SINGLE CONTINGENCY OCCURS! Yes, I'm shouting. This is a very important disclosure, and no

surprise after watching transmission “solutions” proposed for distribution issues, a la Hiawatha Transmission Project and Hollydale Transmission Project.

Similarly, in DER’s Attachment 2, IR 2, no Certificate of Need certification is planned by any Minnesota transmission utility or transmission only entity.

If you have questions or require anything further, do not hesitate to call or email. Until 2023...

Very truly yours,

A handwritten signature in cursive script that reads "Carol A. Overland".

Carol A. Overland
Attorney at Law

cc: eFiled and served via Public Utilities Commission’s eDockets

Attachment A: 2021 NERC Reliability Assessment

Attachment B: MISO MTEP 2021

Attachment C: Rate Case Testimony of Ian Benson, Xcel Energy

This seems like a good place to trot out a reminder, because there is NO need for more transmission in 2021:

[In Grist today: Transmission Lies](#)

February 3rd, 2009

[Transmission lies](#)

[Against the so-called ‘need’ for new long-distance, high-voltage transmission lines](#)

[Posted by Guest author \(Guest Contributor\) at 10:31 AM on 03 Feb 2009](#)



[The following is a guest post from Carol A. Overland, a utility regulatory attorney and electrical consultant based in Minnesota and Delaware, representing clients in energy dockets including transmission projects, wind, gas and coal gasification generation, and nuclear waste.](#)

Transition ... transmission ... transition ... transmission ...

That old [Bowie hook](#) is on my mind as I represent individuals, community organizations, and local governments opposing high-voltage transmission lines. Today we're at a crossroads in energy, a transition point where the decisions we make, like electricity itself, are binary. What we choose will determine how we use electricity in the future. The first step is to carefully define "need."

Transmission doesn't produce electricity. It is passive infrastructure that just sits there, conducting energy from one place to another. At its worst, though, it's an enabler of dysfunctional energy planning and profit-driven projects that are against the public interest. Claims that we "need" transmission are end-stage conclusions of a many-step planning process that we as a society have not yet consciously begun.

“Need” is a term of art, and the crucial task for energy planners is to define the need. We need energy when we flick the switch, and when we do, that’s a utility’s need for service of local electrical load. We also need renewable generation, and we have an equally compelling need to reduce the CO2 emissions, pollutants, and toxic waste of electrical generation (a need not readily recognized in energy planning). Energy planners plan for peak “flick of the switch” need, those few very hot summer days or very cold winter nights. How much “flick of the switch” energy do we need? It depends.

Prior to assessing local load-serving need and making demand projections — before “need” is considered — the first and unarguably least-cost step is conservation. We can easily make up for an annual projected increase in demand of 1.5 percent through conservation, and can probably cut today’s “need” by 10 percent or more, though compound conservation gets more difficult as we cherry pick the easy stuff. The next step before analyzing need is to enact energy efficiency, demand-side management, and load-shifting to cut the peaks and level out the dips. This is also a comparatively least-cost means of meeting demand.

When that’s done, and not before, it’s time to assess our need for electricity — the supply side. Utilities, which are in the business of selling electricity and building their infrastructure — for which we pay, routinely promote sales and exaggerate growth in demand. Because of their overstatements of need in similarly recessionary times, we overbuilt in the 1970s, to the extent that many proposed plants were ultimately canceled. Still so much was built that we haven’t needed much utility infrastructure since. We’ve been through this before, and should be mindful in making investments.

Because of the recent utility industry shift to market-based dispatch, whereby generation is no longer strictly for service of local load but for wider regional or national electricity markets, market expansion has become the driver for the utility “need” for transmission. This is the key difference: how much transmission utilities need to serve their local load (the public good) vs. how much they need to participate in markets (greater profits). [North American Electric Reliability Corporation \(NERC\)](#), the private overseer of all things transmission, admits in [Reliability Assessments](#) that there is a lot of new electrical generation planned and that the transmission system is sufficient to meet local load-serving needs. The confounding factor: [NERC](#) notes that the transmission grid is constrained in places and is not sufficient for market purposes, for market expansion.

The short explanation of the shift to market focus is that, in theory, it makes generation available to all who want it, based on price rather than location. The cheapest is sold first, and buyers queue up in line. But the sale price is busbar price at the generator or seller, and does not take into account the costs of getting it from here to there — notably transmission construction, transmission service, and line loss. These costs are tacked on and billed to the purchasing utility, and will be added to the customer’s bill. The market “price” thus appears misleadingly low. Cheap coal-generated electricity from West Virginia looks awfully good to buyers in New Jersey when all the costs aren’t factored in to the sale price.

This is the crucial point: The divergence between traditional “local load-serving need” and the desire of utilities to beef up need claims, to build generation and transmission at ratepayer

expense, in order play the market. State regulatory proceedings are couched in traditional “local load-serving need” terms, and utilities must prove up need before they are granted Certificates and proceed with construction. Investments must be “reasonable and prudent.” Opportunity to play the market is not reasonable and prudent, so it’s not a reason to build a transmission line — utility desire to increase market transactions is not recognized as “need” in a [Certificate of Need](#) or [Certificate of Public Convenience and Necessity](#) proceeding. This is where transmission lines become transmission lies: Transmission projects for market trading are couched in terms recognized by regulators.

Planning for “peak load” is a transmission lie. Utilities have incentive to overstate “need” when they build for peaks. The higher the peak they build for (with peak occurring only several times annually), the deeper the off-peak valley and the more electricity they can sell on the market when generation is available but not “needed.” Conservation and peak-shaving is against their interest because it lowers peak and lessens the valley of market sales.

“We’ll have blackouts” and “we’re going to freeze in the dark” are transmission lies. A review of recent blackouts — the ones used to justify transmission projects — shows that they occurred during off-peak times where utilities were overloading the lines, pushing more electricity than the system could handle. Despite warnings that the system was at risk, operators did not cut back on loading. An industry report on one blackout during “light load condition and low cost [Mid-Continent Area Power Pool \(MAPP\)](#) generation,” while “there were high simultaneous exports,” concluded:

This event should not be filed away as just another close call. We need to recognize just how close we were to collapsing portions of the Eastern Interconnection and adjust operating guides and reporting practices to avoid recurrence. There are real limits to the transfer capability out of the [MAPP](#) region and those limits are interdependent. This event is an alarming representation of how the [MAPP](#) regional interconnected system is being operated at and even beyond its capabilities.¹

Utility “forecasts” are a lie. Despite their propensity to overstate need, several utility CEOs recently admitted that use has decreased from 3-9 percent, and that future infrastructure projects should be reconsidered. If we’ve moved from 1.5-2 percent projected growth to 3-9 percent decrease — with no increase in sight — that 4.5-11 percent drop in forecasted demand will substantially alter projections for years to come. The longer that drop continues, the further out it will affect projections. Despite this change in use and extension of “need” out in time, utilities are holding on to outdated projections. They still want to build infrastructure based on inflated “need,” infrastructure that we will pay for — and pay them a percentage return on investment. If approved, utilities will cover costs and make a return whether it is needed or not.

“It’s for renewable generation” is a lie. The massive transmission infrastructure expansion proposed is not “for renewables” because transmission may not discriminate by generation type. Federal regulations prohibit discrimination among generators — it’s first come, first ready, first served. There are tens of thousands of megawatts of coal projects, with transmission studies complete or in progress, waiting for interconnection, and whatever generation is ready will be connected. Another side of this lie is when wind advocates support transmission, claiming “it’s

for renewables,” and ignore the impacts of transmission on the communities it traverses. Rather than make this convoluted “it’s for renewables” claim, there’s a better way: if renewable energy mandates were directly linked with shut down of fossil generation, and if renewable generators were thoughtfully sited, both the electricity market and transmission infrastructure would be open and available.

“Long distance transmission” is a lie. Transmission is inherently inefficient over long distances. Transmission physics entails high levels of line loss, and the longer the line, the higher the line loss. To avoid this fact of physics, the electric industry has shifted its line loss analysis for new projects to a “system wide” loss, so the numbers look low. But consider actual numbers of megawatts of line loss, and look at “coal plant equivalents” to make up that loss — for every 500-600 MW of line loss, a coal plant or more would have to be built! Line losses are charged in Federal Energy Regulatory Commission rates, but this is not considered directly in the market transactions. Line loss is an afterthought add-on to the customer’s bill after transmission service is provided. Consider too the capital cost of transmission, starting at about \$1.5 million per mile for 345kV lines and upward from there.

Utilities’ frame of “need” for “public purpose” is a lie. Most transmission regions of the country are now planning transmission expansion to make their markets workable — to be able, theoretically, to ship power across the country. For example, in the Midwest, it’s the [Midwest Transmission Expansion Plan](#). In PJM on the east coast, it’s the [Regional Transmission Expansion Plan](#). These plans are all market-based, but for those transmission projects in states that regulate transmission, they’ll couch “need” in terms recognized by the state to get the approvals they need.

For example, [CapX 2020](#) in the Midwest is framed for Minnesota regulators as needed for “local load-serving,” “regional reliability,” and “generation interconnection” — despite being an obvious expansion for coal through Minnesota to points east. The [Mid-Atlantic Power Pathway](#) is framed as necessary to serve local load in the Delmarva peninsula, despite being an obvious pass-through from West Virginia coal to New Jersey, connecting major power plants for export to the Northeast. Utility framing of this market-based, profit-based purpose as public purpose “need” also serves as their basis for taking land through eminent domain, because a corporation’s private purpose is expressly prohibited as justification for a taking.

Will we fall for transmission lies? Is new transmission a public purpose, a public need, provision of an essential service for a utility’s service area? Or is it an industry grab for market opportunities and profits at the public’s expense?

In my years of practice, I’ve yet to see a transmission line actually meant for the “need” proposed. We must take a critical look at these projects’ claims, because we’re the ones who will pay, and the lines will go over our land. Odds are, it’s private-purpose infrastructure that commits us to 50 or more years of wrongheaded, inefficient, and polluting central-station generation.

Electricity is binary, as is our situation now — we’re at a point where we must choose our path.