



Minnesota Rural Electric Association

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September 24, 2019

Daniel P. Wolf
Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
Saint Paul, MN 55101-2147

Dear Mr. Wolf:

Minnesota Rural Electric Association (MREA) appreciates the effort the staff at the Minnesota Public Utilities Commission (MPUC or Commission) and the Distributed Generation Workgroup's Technical Subgroup has put into creating the proposed Minnesota Distributed Energy Resource Technical Interconnection and Interoperability Requirements (Minnesota DER TIIR). As an active participant in the final drafting of the Minnesota DER TIIR, MREA sincerely appreciated the many hours of discussion and idea sharing that was brought forth by all parties, specifically by Dakota Electric Association, Fresh Energy, Interstate Renewable Energy Council (IREC) and Xcel Energy.

After many months of webinars and in-person meetings facilitated by MPUC, followed by eight months of weekly meetings by the writing subgroup, MREA is very pleased with the process and fully supports the final draft of the Minnesota DER TIIR as filed to the docket. The Minnesota DER TIIR is very much a forward-thinking document and lays the ground work for the technical requirements to interconnect current and emerging DER technology. MREA respectfully submits these comments for consideration to the Commission.

Question 1: Approval of the Minnesota DER TIIR

Should the Commission approve the Minnesota Distributed Energy Resource Technical Interconnection and Interoperability Requirements (Minnesota DER TIIR) as submitted by the Distributed Generation Workgroup's Technical Subgroup?

MREA was pleased with the process to discuss, review and develop the Minnesota DER TIIR. To provide some background, each topic within the Minnesota DER TIIR was first discussed with the Distributed Generation Workgroup's Technical Subgroup. All parties were encouraged to provide concepts and specific language additions and changes to the working TIIR document. These meetings with the full Distributed Generation Workgroup's Technical Subgroup gathered many concepts and ideas to be included in the Minnesota DER TIIR.

The writing subgroup, made up of representatives from Dakota Electric Association, Fresh Energy, IREC, MREA and Xcel Energy, used the documented concepts and ideas from the Technical Subgroup and began the process to create a revised draft of the TIIR. The writing subgroup took the approach that the assumed reader of the Minnesota DER TIIR has a level of understanding of DER and IEEE 1547-2018. The writing subgroup also recognized that much of IEEE 1547-2018 was in development, specifically IEEE 1547.1. The writing subgroup treaded a narrow line to incorporate assumed concepts from future specifics of the IEEE 1547 standards without creating technical requirements that may not align with future industry standards.

The most important aspect the writing subgroup took into consideration, was balancing the specificity of the Minnesota DER TIIR with the need to remain flexible to address the many varieties of DER interconnections and DER types. Many of the writing subgroup discussions revolved around detailing the technical requirements for every variation of DER type and interconnection that the group could think of. This approach was unfeasible as the writing subgroup would not have been able to address every variation and this approach would have not been able to address future DER types.

Multiple draft versions of the Minnesota DER TIIR were circulated amongst the full Distributed Generation Workgroup and the Technical Subgroup. Proposed edits and modification were discussed in depth by the writing subgroup prior to providing the final Minnesota DER TIIR draft to MPUC staff.

MREA is recommending that the Commission should approve the Minnesota DER TIIR. MREA is also recommending the Minnesota DER TIIR be modified to incorporate any amendments made to the IEEE 1547-2018 standard. The Minnesota DER TIIR should be modified and updated as needed to incorporate changes to IEEE 1547 and as emerging technology becomes more commonplace.

Question #2 Interim Implementation

Is the language in the Technical Subgroup's recommended draft sufficient and appropriate on implementation of the statewide technical requirements in the interim as IEEE 1547-2018 implementation to UL 1741 certified equipment is complete (anticipated in 2021)? What, if anything else, should the Commission address related to interim implementation?

The Minnesota DER TIIR document is a significant leap forward in the modernization of Minnesota's technical requirements for DER interconnections. DER technologies not addressed in the 2004 Technical Requirements, such as energy storage systems, are now starting to become more common place. To ensure clarity for utilities and installers, Minnesota should have updated technical requirements for these new DER types. While UL 1741 certified equipment will not be readily available until sometime in the future, the Minnesota DER TIIR needs to address the emerging types of DER that are here today seeking interconnection to the distribution system.

The language included in the Technical Subgroup's recommended draft addressing the interim implementation is simple in its approach to basically state that until UL 1741 certified equipment that meets IEEE 1547-2018 is readily available, the functionality shall not be required by the utility, unless mutual agreement from both parties occur. The mutual agreement clause allows for flexibility for both the interconnection customer and the utility, while the "readily available" clause does not place undue burden on the interconnection customer. MREA believes the language in the Minnesota DER TIIR document is sufficient and appropriate for addressing the interim period before UL 1741 certified equipment meets IEEE 1547-2018 standards.

Question #3 Utility Technical Specification Manuals

Is the language in the Technical Subgroup's recommended draft sufficient and appropriate on the scope of an individual utility's Technical Specification Manual (TSM) and the Commission's oversight? What, if anything else, should the Commission address related to the rate-regulated utilities' TSMs?

The constant need for flexibility was raised by all parties throughout the discussion of what was to be included in the Minnesota DER TIIR at the Technical Subgroup and the writing subgroup level. The emerging types of DER systems that are being proposed for interconnection today are ahead of industry standards being developed. To be able to allow these emerging DER interconnection proposals, utilities need the flexibility to address technical requirements of DER systems not envisioned by the TIIR.

MREA believes the Minnesota DER TIIR does an appropriate job of addressing what should be in the utility's Technical Specification Manual (TSM) documents. MREA, along with Dakota Electric Association, plan to discuss and learn from other utilities to improve TSM documents in use at electric cooperatives. MREA fully expects the TSM documents to be living documents, reviewed, and perhaps, updated on an annual basis by the electric utility. As electric cooperatives learn from each other and other electric utilities on how certain types of DER systems are best interconnected, the TSM document should be updated for the betterment of the utility, the installer and the membership.

MREA cautions the Commission from placing too much oversight on the regulated utilities' TSM documents. There is a financial disincentive to update a TSM document if the Commission requires a time-consuming process for regulated utilities to update their TSMs. If the labor required by the regulated utility to meet the Commission's oversight requirements is too burdensome, it can be assumed that regulated utilities will most likely not want to update their TSMs, even if the TSM could have been improved with minor changes learned from experience or others.

Conclusion

In closing, MREA is pleased with this opportunity to comment on Minnesota DER TIIR. The Minnesota DER TIIR is a technically sound document that places the State of Minnesota in a great position for future DER interconnections. MREA looks forward to the implementation of the new technical requirements for the interconnection of DER to the distribution system.

Sincerely,

A handwritten signature in black ink, appearing to read "Darrick Moe". The signature is fluid and cursive, with the first name being more prominent.

Darrick Moe
President/CEO
Minnesota Rural Electric Association