



January 22, 2020

VIA ELECTRONIC FILING

Ryan Barlow, Acting Executive Secretary

Minnesota Public Utilities Commission  
121 7<sup>th</sup> Place East, Suite 350  
St. Paul, MN 55101-2147

Re: Dockets E-017/M-19-693, E-017/CI-18-253 In the Matter of Otter Tail Power's 2019 Integrated Distribution System Plan

Clean Energy Economy Minnesota (CEEM) respectfully submits these comments on Integrated Distribution System Planning for Otter Tail Power. Our mission at CEEM is to provide educational leadership, collaboration, and policy analysis that accelerates clean energy market growth and smart energy policies. We work to support and expand clean energy jobs and the economic opportunities provided by clean, reliable, and affordable energy on behalf of all Minnesotans.

Please feel free to contact us with any questions that you may have. We hope that the comments below provide you with useful insights.

Regards,

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**State of Minnesota**  
**Before the**  
**Minnesota Public Utilities Commission**

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In the Matter of Otter Tail Power’s 2019  
Integrated Distribution System Plan

Dockets E-017/M-19-693  
E-017/CI-18-253

**COMMENTS**

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**Introduction**

Clean Energy Economy Minnesota (CEEM) appreciates the opportunity to provide these comments in response to the Minnesota Public Utilities Commission’s (hereafter PUC or Commission) Notice of Comment Period on Otter Tail Power’s (OTP) Integrated Distribution Plan (IDP) filed November 1, 2019.

CEEM is an industry-led 501(c)(3) nonprofit representing the business case for clean energy in Minnesota. CEEM provides a unified voice for clean energy business across the state. Our mission is to provide educational leadership, collaboration, and policy analysis that accelerates clean energy market growth and smart energy policies CEEM works to support and expand clean energy jobs and the economic opportunities provided by clean, reliable, and affordable energy on behalf of all Minnesotans. We are focused on sharing the stories and perspectives of clean energy businesses and employees, and are committed to working across industries and political divides to support a prosperous economy for Minnesotans.

CEEM is fueled by support of our member businesses, partners, and individuals working across Minnesota’s sustainable energy economy. CEEM’s members and partners represent a wide array of businesses providing and seeking energy solutions, and across energy technologies and business models. CEEM staff has significant experience in participating in regulatory reform, grid modernization, and “utility of the future” discussions and regulatory proceedings as well as educating state utility regulatory professionals across the country.

**Background**

The Minnesota PUC is viewed as a national leader in distribution planning. The Commission identified objectives, and considered the capabilities of clean energy technologies in meeting those objectives. We commend the Commission’s efforts in continuing to create comprehensive and coordinated IDP processes for Minnesota’s regulated utilities. We are encouraged by this leadership, guided by sound principles and planning objectives, including to:

- Maintain and enhance the safety, security, reliability, and resilience of the electricity grid, at fair and reasonable costs, consistent with the state’s energy policies;
- Enable greater customer engagement, empowerment, and options for energy services;
- Move toward the creation of efficient, cost-effective, accessible grid platforms for new products, new services, and opportunities for adoption of new distributed technologies; and,

- Ensure optimized utilization of electricity grid assets and resources to minimize total system costs.
- Provide the Commission with the information necessary to understand short-term and long-term distribution system plans, the costs and benefits of specific investments, and a comprehensive analysis of ratepayer cost and value.<sup>1</sup>

The Commission’s February 20, 2019 Order outlined filing requirements for OTP’s IDP. Those requirements include baseline distribution system and financial data, preliminary hosting capacity data, distributed energy resource scenario analysis, long-term distribution system modernization and infrastructure investment plan, and a non-wires (non-traditional) alternatives analysis.<sup>2</sup> On October 4, 2019 OTP held an informational hearing, prior to the November 1, 2019 filing of the IDP to obtain input from the public. On November 19, 2019, the Commission issued a Notice of Comment Period, identifying topics open for comment.

Distribution system planning will continue to evolve as changes in policy, markets, and technologies influence the design of modern grids across Minnesota. Utility customers will benefit from this evolution, including increasing customer enrollment in utility programs designed to meet a variety of customer objectives, and adoption of distributed energy resources.<sup>3</sup> Minnesota continues to lead discussions about system evolutions and changes, establishing nation-leading regulatory practices, from discussions of Grid Modernization (2015-16) and the development of filing new requirements for IDP processes for the state’s regulated utilities. We commend the Commission and stakeholders for their collective efforts, and CEEM greatly appreciates the opportunity to participate in this proceeding.

**Comments and Review of Otter Tail Power’s Inaugural IDP**

In its Notice of Comment Period, the Commission offered the following topic(s) open for comment:

- Should the Commission accept or reject Otter Tail Power’s Integrated Distribution Plan (IDP)?
- Does the IDP filed by Otter Tail Power achieve the planning objectives outlined in the filing requirements approved in the Commission’s February 20, 2019 Order?
- What IDP filing requirements provide the most value to the process and why?
- Are there filing requirements that are not informative and/or should be deleted or modified, and why?
- Are there other issues or concerns related to this matter?

**Should the Commission accept or reject Otter Tail Power’s Integrated Distribution Plan?**

The Commission should accept OTP’s Integrated Distribution plan. The Commission should ensure OTP provides significantly more information to stakeholders in future filings. The OTP IDP filing provides some insight into unique challenges OPT faces in operating distribution systems, some indication of thought processes in considering grid modernization, and hints at some possibilities for customer-facing

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<sup>1</sup> MN PUC ORDER APPROVING INTEGRATED DISTRIBUTION PLANNING FILING REQUIREMENTS FOR XCEL ENERGY (August 30, 2018), Docket. No. E-002/CI-18-251

<sup>2</sup> MN PUC ORDER ADOPTING INTEGRATED DISTRIBUTION-PLAN FILING REQUIREMENTS (February 20, 2019), Docket. No. E-015/CI-18-254

<sup>3</sup> We define DER broadly to include energy efficiency, demand response, distributed generation of all types, energy storage, electric vehicles and microgrids.

options. However, the filing information falls short of facilitating thorough discussion of how OTP may move toward a modern grid across its operating territory. We understand that inaugural filings are an opportunity to begin discussions of system planning while also creating opportunities for learning for stakeholders and utilities.

Stakeholders, utilities, and the Commission are in a unique position with inaugural IDP filings to create a learning process. For example, the Commission may choose to provide guidance to OTP and stakeholders on expectations for desired changes and/or expected improvements for future IDP filings. CEEM offers some of our perspective on future improvements within these comments.

The Commission could help to clarify what approval of an IDP means in terms of impacts on and connections with those other proceedings. Should stakeholders be considering what relation utility IDPs have or will have to more formal dockets, such as rate cases, certification requests, and other processes? This is a concern CEEM raised in previous IDP discussion.<sup>4</sup> In Michigan, for example, the Public Service Commission used distribution system plans to gather additional input from regulated utilities, consider how plans can inform ratemaking and other regulatory processes, and to consider the role of performance-based metrics.<sup>5</sup>

In total, OTP's IDP filing combined with the company's efforts to engage with stakeholders represent a starting point. We recommend that the Commission approve the IDP and utilize the outputs from the plans to inform related Commission processes and proceedings.<sup>6</sup> We suggest that the plan approval should not constitute any formal finding of prudence, nor any pre-approval commitment.<sup>7</sup>

### **Does the IDP filed by Otter Tail Power achieve the planning objectives outlined in the filing requirements approved in the Commission's February 20, 2019 Order?**

IDPs should serve as a means to discuss both a philosophy and method toward grid modernization. We would point to the Commission's definition of grid modernization:

“A modernized grid assures continued safe, reliable, and resilient utility network operations, and enables Minnesota to meet its energy policy goals, including the integration of variable renewable electricity sources and distributed energy resources. An integrated, modern grid provides for greater system efficiency and greater utilization of grid assets, enables the

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<sup>4</sup> Comments of Clean Energy Economy Minnesota to Minnesota PUC - Docket E002/CI-18-251 In the Matter of the Distribution System Planning for Xcel Energy – February 20, 2019 at pg. 3 ([LINK](#))

<sup>5</sup> 9 Michigan Public Service Commission. Order of April 18, 2018 Case No. U-18383 – In the matter on the Commission's own motion to implement the provisions of Sections 173 and 183(1) of 2016 PA 342, and Section 6a(14) of 2016 PA 341.1 ([LINK](#))

<sup>6</sup> For example, as noted in Minnesota Power's IDP filing requirements, this effort should directly connect with other planning, including integrated resource plans and planned modifications to existing process to improve coordination and integration between the two plans

<sup>7</sup> Pre-approval of an action, such as “approving” a distribution system plan, assumes the appropriateness of costs may be determined later. This embeds risk that approval of plans implies spending, in some cases. Regulatory approval should be thoughtfully crafted and clear. See Hempling, S., & Strauss, S. H. (2008). Pre-Approval Commitments: When and under What Conditions Should Regulators Commit Ratepayer Dollars to Utility-Proposed Capital Projects.

development of new products and services, provides customers with necessary information and tools to enable their energy choices, and supports a standards-based and interoperable utility network.”<sup>8</sup>

As we noted, the OTP filing provides some outline of activities and decisions OTP is considering related to grid modernization. OTP’s grid modernization approach considers varying technologies associated with grid modernization including advanced metering infrastructure, telecommunications architecture, load management, conservation voltage reduction, outage process investigation, and street lighting. With the exception of street lighting, OTP provides limited insight into decision criteria for technologies. For some of the technologies, OTP notes they’re considering or investigating options. The IDP lacks insight into how OTP is evaluating grid modernization investments or how they may create a systematic way of planning investments. We encourage OTP to connect these technologies more explicitly to the Commission’s definition of a modern grid. OTP should work to develop more explicit discussions of evaluating grid modernization options.

Enabling customers’ experiences should be part of IDP short-term objectives, with clear plans to enable or develop customer programs. While OTP notes success with past demand-side activities and strong use of energy efficiency, there is significant opportunity to improve upon the use of the distribution system for customer benefit. System plans should reflect a commitment to prioritizing customer benefits in initial and early investments. For example, customer service options can extend beyond billing inquiries. OTP notes a new customer information system “which provides future flexibility for customers to have more energy choices” yet is not included within the IDP. OTP notes that this is because such programs are outside the distribution budget. While this is understandable, this accounting may limit the productivity of the discussion intended by through the IDP. For example, one could imagine that a well used customer information system investment may produce engaged customers. Engaged customers could lower demands on the distribution system. Thus, customer-facing investment may alter the costs and benefits of alternative spending on OTP distribution systems.

Use of customer energy data directly advances customer engagement and choice. Access should be timely, actionable, and enable the customers to self-manage or engage third-parties to meet their energy usage objectives. Many utilities have ensured energy data is shared with authorization in line with responsible data practices and within appropriate technical requirements.

DER adoption forecasts will and must become more refined than the current filing. This statement applies to all utilities filing IDPs, and we understand that methodologies to forecast DER adoption are still being developed. OTP develops DER penetration scenarios (pg 24-25) based on some system averages with sensitivities. OTP notes the company “does not believe DER penetration levels of 10 percent and higher, as listed in the Company’s requirements, are appropriate for its service territory and customer base.” What is lacking is the detail used to anchor the DER levels presented.

Non-wires alternatives (NWA) deserve more examination in future filings. NWA may be a new frontier, but OTP’s filing presents a relatively light examination of how the company may consider NWAs going forward (see pgs 41-42). Beyond noting there is no “one size fits all” for NWAs and that OTP’s NWA

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<sup>8</sup> Minnesota Public Utilities Commission Staff Report on Grid Modernization. March 2016. <https://www.edockets.state.mn.us/EFiling/edockets/searchDocuments.do?method=showPoup&documentId={E04F7495-01E6-49EA-965E-21E8F0DD2D2A}&documentTitle=20163-119406-01>

options “will not lend themselves to be good comparisons,” the approach described projects that would be suited for comparison and evaluation would be capacity and reliability projects.” It is important to understand unique challenges to OTP’s future distribution grid, but this discussion is not sufficient to facilitate the role of NWAs in grid modernization. Future IDPs must provide a more refined view of NWA conceptualization and potential application to OTP systems.

The cost-benefit framework is absent in the inaugural filing. In describing grid modernization categories, OTP hints at some cost/benefit considerations. However, what is lacking is rigor or comparative ideas of how cost/benefit is being applied in OTP decisions. For example, we could imagine scenarios where foundational investments in grid modernization may not seem to pass cost/benefit tests, yet those investments enable investments that will meet those tests. We defer to OTP on this, and encourage future filings to more fully express a cost benefit “mental model.” Cost-benefit analysis plays a critical role in transparent IDP discussions and decision-making. Future plans should provide stakeholders and the Commission with more explicit information on cost-benefit conceptualization, methodologies and/or calculations.

Lastly, we encourage OTP to provide more detail for its vision in future filings. This filing represents a foundation and initial evaluation. We look forward to OTP refining its vision in future IDP proceedings.

#### **What IDP filing requirements provide the most value to the process and why?**

For CEEM and member companies, the Long-Term Distribution System Modernization and Infrastructure Investment Plan provides the most opportunity to provide productive commentary. The potential pilots discussed (beginning pg. 37). We look to see utilities, including OTP, evolve their use of baseline information while envisioning a path that connects that to the Commission’s objectives for planning for a modern grid.

In a broad sense, CEEM thinks that IDPs should improve discussion of costs and benefits of potential system designs and associated investments. Further, the Commission, the Department of Commerce, and stakeholders can work with utilities to provide cost-benefit quantification and analysis related to important policy outcomes. Also, other states and industry players are considering cost-benefit frameworks. For example, E4TheFuture, published the National Standard Practice Manual (NSPM)<sup>9</sup> in 2017, which provides a framework to evaluate energy efficiency resources. A National Standard Practice Manual for Benefit-Cost Analysis of Distributed Energy Resources is expected in 2020.<sup>10</sup> Further, the National Association of Regulatory Utility Commissioners and National Association of State Energy Officers formed a task force to develop new approaches to better align planning processes in 2018.<sup>11</sup> This and similar efforts are working to provide guidance for state regulators and policymakers to

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<sup>9</sup> National Energy Efficiency Screening Project (NESP) (2017). The National Standard Practice Manual for Assessing Cost-Effectiveness of Energy Efficiency Resources. <https://nationalefficiencyscreening.org/national-standard-practice-manual/>

<sup>10</sup> Project overview from December 2019 currently available - <https://nationalefficiencyscreening.org/wp-content/uploads/2019/06/NSPM-for-DERs.pdf>

<sup>11</sup> NARUC and NASEO Establish New Joint Task Force on Comprehensive Electricity Planning (November 13, 2018). <https://www.naruc.org/about-naruc/press-releases/naruc-and-naseo-establish-new-joint-task-force-on-comprehensive-electricity-planning/>

develop and implement tests that are consistent with sound principles, while providing flexibility to ensure appropriate application to each state's distinct needs and interests.

We encourage the Commission to continue to refine expectations related to NWA assessment for future IDPs. The non-wires alternatives discussion warrants examination across all utilities. The proliferation of DERS across the US is providing new options for grid operators to replace infrastructure. NWAs are often chosen to replace or defer replacement of upgrades. The definitions of NWAs vary, as do regulators' expectations of utilities related to NWAs. Noting what may be ambiguity in what assessment of NWAs means, we encourage stakeholders and the Commission to monitor trends and continue to refine NWA approaches. For example, Navigant Research has a Non-Wires Alternatives Tracker which follows projects across the US.<sup>12</sup>

**Are there filing requirements that are not informative and/or should be deleted or modified, and why?**

This question will be answered as stakeholders gain further experience with IDP processes. The filing requirements will warrant review and revision, but subsequent experience is needed before suggesting removal of any filing requirements.

**Are there other issues or concerns related to this matter?**

To this end, we encourage the Commission to consider not only compliance with filing requirements, but other outcomes of IDP processes. In particular, there are opportunities to highlight where clean energy delivers significant public benefits, to focus on customer empowerment alongside operational expertise, and to create communities of practice around a modern grid.

It is important to prioritize efforts to identify where clean energy delivers the most public benefits. Planning for a future includes concerns for equitable deployment of energy infrastructure. Performing hosting capacity analysis and DER forecasts should also identify potential deployment scenarios that would deliver benefits to disadvantaged, vulnerable and low-income communities. The clean energy transition should create opportunities across the state and across territories of regulated public utilities.

It is vital to focus simultaneously on customer opportunities and operational excellence. While we agree with a gradual approach to grid modernization, we must consider if and when direct customer empowerment is prioritized in system planning.

We also encourage the Commission to use the IDP process to create communities of practice. It is vital that the stakeholder community, the Commission, and utilities all learn with and from each other as IDP evolves. The IDP can help serve as a basis for stakeholders to cooperate outside of formal processes. The IDP can help facilitate value creation for customers and system operators alike.

**CONCLUSION**

We applaud the Commission for beginning the important discussion with Minnesota's utilities and stakeholders through the IDP process. We hope to learn from OTP's inaugural IDP filing, and by their efforts to engage a broad set of stakeholders. We expect that future IDP filings will provide more detail

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<sup>12</sup> Navigant Research (2019) Non-Wires Alternatives Tracker 3Q19.  
<https://www.navigantresearch.com/reports/non-wires-alternatives-tracker-3q19> Accessed 1/9/2020

on how OTP views grid modernization. We thank the Commission and staff for their continued hard work to make system planning more transparent. Minnesota's electricity grids deliver essential services to the businesses and citizens of the state. The distribution system infrastructure that delivers electricity will continue to change to adapt to trends related to technology changes, public policy objectives, and market activity.