



State Staff Information Sharing “Surge” Call Summary Distribution Planning for a High-DER Future

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State public utility commissions have begun to use the utility planning process to advance policy goals, anticipating a future of rapidly growing distributed energy resources (DERs). Commissions and other stakeholders have noticed blind spots in traditional utility planning when it comes to incorporating DERs. Although DERs are sometimes accounted for, they are generally not incorporated into existing resource planning. There may be unrealized benefits of planning for DERs when considering infrastructure investments, resiliency improvements, and other state policy goals. NARUC invited staff from the Minnesota Public Utilities Commission, the California Public Utilities Commission, and the Michigan Public Service Commission – three states currently reexamining their distribution system planning (DSP) policies – to discuss their objectives, processes, and outcomes.

Minnesota

The Minnesota PUC began looking at grid modernization, eventually narrowing the focus to distribution system planning due to its interdependence with other aspects of grid modernization efforts. The commission worked with the U.S. Department of Energy and ICF International in summer 2016 to develop a report laying out the state’s high-level goals, concepts, and metrics for distribution planning.

The commission followed the workshops with a public comment period, ending on September 21, 2016. Initial public workshops helped bring stakeholders to the table and served as a way for the commission to notify any potentially affected parties that change

was coming. Early comments reflect a high level of engagement and the commission is confident that stakeholder input will help reach the goals laid out in the summer 2016 report. Additionally, a questionnaire for utilities guided responses into three parts: how they currently do planning, what their projected budgets are, and what can be done differently. The commission will use the public comments and utility questionnaire responses to determine its next steps, with the goal of having a new policy in place by the end of 2018.

The Minnesota staffer emphasized that distribution system planning is an iterative process with near-, mid-, and long-term objectives. While the commission is focused on using DSP to integrate DERs, it is also looking at broader grid technologies that could achieve widespread adoption in the future. The DSP process should be designed to facilitate these new technologies.

California

The commission is pursuing four objectives in its DSP effort: (1) identifying current hosting capacity, circuit-by-circuit, (2) looking at interconnection issues for DERs, (3) proactively managing DERs and sending the right price signals to developers and customers, and (4) setting incentives for procurement procedures. The commission recognizes a “Goldilocks” problem in the length of distribution system planning: if the initial planning period is too short-term, DERs will not be a viable solution for utilities. On the other hand, if planning is done over too long a time period, committing to large DER procurements can be a nonproductive



investment given the changes in the distribution system. The trick to getting DSP right is enabling utilities to direct DER to high-value locations. To get this balance, California has a number of pilot-style solicitations at the substation level that should produce results within a few years. Following those, the commission may consider putting in place a list of preapproved vendors for future RFPs.

Michigan

Michigan commission staff felt that the state's utilities ignored DERs in planning, following a "build bigger, not smarter" approach. The commission is interested in encouraging utilities to adopt a DER-inclusive approach rather than continuing to build big infrastructure. While utilities in Michigan have teams focused on DERs, distribution system planning happens in another silo. Where DER data is incorporated into planning, it is often national trends instead of circuit-level data. Commission staff underscored the importance of local hosting capacity data to illuminate where the most value will occur on the distribution system.

To change these practices, the commission opened dockets requiring a five-year distribution investment plan focusing on grid modernization, replacing aging infrastructure, increasing reliability, accounting for DER penetration in load forecasting, and integrating emerging technologies for greater system efficiency. The commission asked utilities to submit draft plans and feedback on the process at a midpoint.

With huge interest in distribution interconnection opportunities, and near-annual rate increases of approximately 5 percent, the commission is confident of the need and desire for a new planning process.

Discussion

States had a variety of experiences with how receptive their utilities were to adopting DER integration. Incentive mechanisms were identified as a leading barrier to enabling a utility to embrace the risk of investing in DER, or enabling customers to invest. Utilities continue to express concern about stranded assets and cost-shifting to non-DER customers.

Each staffer emphasized the importance of taking the time to set objectives early in the process and prioritizing actions to take over a set timeline. Stakeholder input has proven valuable in all three states. One staffer encouraged states getting into the process to consider multiple scenarios for technology and penetration rates. Additionally, staff should look closely at the incentives driving DER penetration. All three staffers were optimistic that the process would lead to improved DSP policies in the future and expressed support for other states beginning similar efforts.

Resources

Minnesota:

- DOE [report](#)
- DSP [questionnaire](#) for utilities
- Staff [report on grid modernization](#)

California:

- DRP Working Group [website](#)

Michigan:

- DTE [docket and comments](#)
- DTE [draft report](#)
- CMS [docket and comments](#)
- CMS [draft report](#)

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