STATE OF MINNESOTA
BEFORE THE PUBLIC UTILITIES COMMISSION

Nancy Lange	Chair
Dan Lipschultz	Commissioner
Matt Schuerger	Commissioner
Katie Sieben	Commissioner
John Tuma	Commissioner

In the Matter of a Commission Inquiry Into Grid Modernization	Docket No: E999/CI-15-556

Reply Comments of the Citizens Utility Board of Minnesota
on the Commission Questionnaire, Section C

The Citizens Utility Board of Minnesota ("CUB") submits these Reply Comments in appreciation of the many comments offered by utilities and stakeholders in response to the questions from the Minnesota Public Utilities Commission ("PUC" or "the Commission") regarding the advancement of grid modernization efforts through distribution system planning. As many stakeholders noted, the value of sharing what Xcel calls "state of the system"[1] data as well as load profile data, controllability data, demand and energy data (including historical data on all of these points) and information regarding distributed energy resource ("DER") penetration will advance state policy goals calling for cleaner energy without any compromise in the affordability, reliability or security of the electricity distribution system.

While CUB does not necessarily believe that distribution plans should be approved by the Commission, for the reasons noted in its Initial Comments, CUB does see a value in setting forth in this docket requirements for regular filings which would be automatically shared with stakeholders, such as the parties to this docket. To that end, CUB recommends the Commission direct the utilities to file distribution system plans which contain system data and metric reporting which can be used to measure progress towards specific policy goals. The Commission and stakeholders can use the plans filed in this docket in proceedings which review utility distribution system investments, such as rate cases, and utility integrated resource planning.

The goal of distribution system planning should be to facilitate the integration of DER in a cost-effective manner without compromising utility service or adversely impacting customer bills. Over time, filing of distribution system plans on a regular basis will help all parties evaluate trends, specific project investments and the need for investments in digital grid technology such as advanced metering infrastructure ("AMI"). Sharing information such as hosting capacity, load factor, and asset performance will help DER project developers and end-use customers evaluate the costs and benefits of DER investments. It will also help the Commission ensure that opportunities to use DER such as electric vehicles to provide grid services and value are not overlooked. For these reasons, CUB recommends the Commission adopt the recommendations provider here and in CUB's Initial Comments on the Commission Questionnaire.

CUB does not respond to parties regarding each question. Where no additional comments are offered, CUB refers the Commission to its Initial Comments.

[1] Xcel Initial Comments at 24.

I. Response to Commission Questions

1) Evaluation of Utility Plans

As noted by several parties, it may be that requiring annual filings could be more burdensome than useful in helping the Commission and stakeholders evaluate progress towards state policy goals. CUB is mindful that the costs of preparing such filings would ultimately be recovered in rates from customers. Given the short-term planning horizons involved in these plans, the value of having distribution system plans lies mainly in the sharing of useful system data which can guide policy makers, DER project developers and customers in evaluating trends and opportunities in DER adoption.[3] These plans should be standardized in the types of data to allow easy comparison from plan and include standard metrics such as those put forth by CUB in its Initial Comments.[4]

While the Commission need not necessarily approve distribution system plans, CUB agrees with IREC that ultimately the Commission should establish specific goals for grid modernization which can be used to evaluate the progress shown in these plans.[5] To that end, CUB recommends the Commission direct the utilities to prepare their plans with the goal of achieving:

- Traditional utility responsibilities (e.g. affordability and reliability of service);
- Advancement of policy goals regarding greenhouse gas reduction in the manner most cost-effective for ratepayers; and
- Equity and environmental justice goals of ensuring affordability of service and penetration of DER amongst all types of customers, including low-income, renters, etc.

3) Forecasting

Many parties agree that forecasting data would be useful But, as noted by Xcel, integrating different forecasts will be difficult until the infrastructure is in place to obtain it.[6] Modeling and forecasting DER penetration as part of load forecasts is, while never perfect, important information for the Commission and stakeholders to have in reviewing utility investments in infrastructure, including investments at the distribution level. CUB agrees with Fresh Energy that overestimating load growth can often lead to unnecessary investments,[7] the costs of which are ultimately recovered from utility customers. As IREC puts it, traditional peak load forecasting that fails to account for DER load growth will not result in a modern distribution system,[8] limiting the potential for cost-effective investments. Given the variety within Minnesota utility service territories, CUB agrees with the Minnesota Department of Commerce ("Department") that modeling and forecasting would need to be tailored to each utility's individual circumstances.[9]

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[3] *See, e.g*. Initial Comments of Otter Tail Power at3; Fresh Energy Initial Comments at 3; IREC Initial Comments at 8.
[4] CUB Initial Comments at 5.
[5] IREC Initial Comments at 15.
[6] Xcel Initial Comments at 10.
[7] Fresh Energy Initial Comments at 12.
[8] IREC Initial Comments at 19-20.
[9] Department Initial Comments at 3.

6) Access to Grid and Planning Data by Customers and Third Parties

Several comments addressed the wide variety of data would be useful for customers and third parties so long as that data does not reveal confidential customer information. Xcel and Minnesota Power for example listed:

- State of the system (devices, transformers, conductors, operating characteristics, capacities), load profile, controllability, historical data, demand and energy data, DER (availability of resources, potential market adoption, operating characteristics, contractual obligations).[10]
- Customer usage and demand data, queued generation, existing generation, feeder characteristics, select GIS current state snapshots.[11]

In line with the overall goals of grid modernization, the Department notes that data for coordinating DER projects, such as investments in energy efficiency, demand response and electric vehicle adoption, can allow for partnership between third parties and utilities.[12] CUB agrees, and continues to support access to grid and planning data by customers and third parties.

7) Hosting Capacity.

While it is true that hosting capacity data is most useful where DER penetration has begun, it is also true that hosting capacity is a key data point for customers and third parties considering DER investments in the future. As noted by IREC and Fresh Energy, hosting capacity can be combined with DER forecasting and locational valuation to identify areas of the grid where DER can connect at the lowest cost and identify areas where DER placement can alleviate potential distribution system issues.[13] Such work can and should be combined as much as possible but with integrated system planning at all levels.

Conclusion

As before, CUB thanks the Commission for the opportunity to provide these comments, and thanks the parties for their thoughtful comments which provides a robust record for the Commission to consider in this proceeding. The Commission should conclude this docket with a directive to the utilities to file distribution system plans on a regular basis in this docket. Plans should contain standardized system data, forecasts and hosting capacity analyses. These plans should be used to measure progress against specific state policy goals, established by the Commission here, by making investments which deliver the functionalities needed to ensure cost-effective integration of distributed energy resources. CUB looks forward to continuing the discussion with the Commission, utilities, and stakeholders.

[10] Xcel Initial Comments at 24.
[11] Minnesota Power Initial Comments at 6.
[12] Department Initial Comments at 3.
[13] IREC Initial Comments at 27-28; Fresh Energy Initial Comments at 9.

Respectfully submitted, September 21, 2017

/s/ Annie Levenson-Falk

Annie Levenson-Falk
Executive Director, Citizens Utility Board of Minnesota
332 Minnesota St., Suite W1360
St. Paul, MN 55101 651-300-4701, ext. 1
annielf@cubminnesota.org

/s/ Kristin Munsch

Kristin Munsch
Deputy Director, Citizens Utility Board of Illinois
309 West Washington Street
Chicago, IL 60606
312-263-4329
kmunsch@citizensutilityboard.org