

August 20, 2019

Department of Energy
Office of Electricity
1000 Independence Ave, SW (Mailstop OE-20)
Washington, DC 20585

Subject: Guidance for Enhanced Grid Resilience

Dear Mr. Meyer,

On behalf of the Modesto Irrigation District (MID), please find information in response to the July 9 Department of Energy's Notice of Request for Information (RFI) on *Codes Standards, Specification and Other Guidance for Enhancing the Resilience of Electric Infrastructure Systems against Severe Weather Events*.

Questions of Concern from DOE:

1. What are the "consensus-based codes, specifications, standards, and other forms or guidance" regarding grid resiliency concerning weather patterns and events (i.e. wildfires, flooding, windstorms, etc.)? For example, transmission and distribution (T&D) could be built in areas prone to 125+ winds; in this case, what would be the specifications MID uses? Do we have steel specifications, concrete specifications, etc.?
 - MID is developing a Wildfire Mitigation Plan for implementation on January 1, 2020 as required by California Public Utility Commission's (CPUC) Code 8387 and SB 901. It will be based on CPUC fire threat map, that shows MID's service territory in Moderate Fire Zone except for a 2.3 miles section of a 60kV line from New Hogan Dam to Pacific Gas & Electric's interconnection point that falls in Tier 2 elevated fire risk zone. It will also comply with General Order 95 (GO95) - Appendix E - tree trimming clearance requirements, GO 165 increased line patrols in Tier 2 - High Fire Threat District, sections 4292, 4293, 4294 & 4296 of California Code of Requirements for vegetation clearances, Title 14 Section 1257 for minimum clearance exemptions, California Fire's State Responsibility Area (SRA) requirements and North American Electric Reliability Corporation's (NERC's) FAC- 003 - 4 requirements.
 - GO 95, Rule 43.1-C designates MID's service territory Light Loading zone with a wind speed of 56 mph winds or 8 pounds per square foot wind pressure. MID's transmission and distribution (T&D) systems are designed to comply with it.
 - MID does take into account 500-year and 100-year floodplains mapped in GIS to locate T&D substation facilities.
2. Who at MID, as a senior employee, is responsible for the "development, implementation, and on-going maintenance" of the T&D infrastructure?
 - Assistant General Manager, Transmission and Distribution
3. What is the on-going maintenance of a "company-wide resilience strategy," if there is one?

- MID has on-going maintenance for its equipment that has maintenance intervals specific to equipment type from monthly, yearly, 3-years, 5-years, 6-years, 12-years, etc. We are developing a spare equipment strategy that takes into account asset health from on-going maintenance and procurement lead-time.
4. Does MID look at the economics behind “investments, strategies, and initiatives” when addressing the resiliency of MID’s T&D infrastructure?
 - MID is a good steward of its assets and will perform benefit-cost analysis to determine justification of projects. The main benefit drivers being safety, reliability, and compliance.
 5. Please explain the rationale(s) behind the specifications. For example, why is a particular specification important?
 - Specification are determined to meet safety, reliability, and compliance requirements with cost also being a factor.
 6. Regarding the California, local, or MID-specific standards, can MID answer the following:
Scope and Applicability: do these California or local standards, if applicable to MID, focus on specific hazards(s) (i.e. windstorms, flooding, etc.)? Do California or local standards have a specific threshold (i.e. “the design of T&D would need to withstand 125 winds”)? Are there appropriate hazard maps (i.e. floodplains, wildfire zones, etc.)?
 - MID does take into account floodplain and wildfire zones. I am not sure if California or local standards do. The T&D facilities would not be designed to withstand 125 mph winds as GO 95 designates MID service area as a Light Loading Zone with 56 mph wind speed or 8 pounds per square foot of wind pressure.

Origins: how did these California or local standards come about? Was there ample transparent conversation and communication with MID regarding impacts by these standards and the implementation of them? If so, how?

- MID complies with GO95 which is updated from time to time with CPUC approval. MID is part of the Rules committee that meets three times a year to consider changes to GO 95 and GO 128 and their impacts to MID.

Validation: have the California or local standards been widely tested? Have they been tested at MID either naturally, modeled, or in simulation? If so, how did they perform in application and/or reality?

- Yes. GO 95 and 128 are used by all California utilities.

We are hopeful that this information is helpful. Please do not hesitate to contact me if you have any question or comments.

Sincerely,



Scott Furgerson
General Manager
Modesto Irrigation District