

PREP WORK

Subgroup members review agenda and provide the following to staff by 4/6/18 (If providing slides, final slides due 4/12/18):

- 1) Review and red-line staff edits/comments on Regulated Utilities' proposed purpose, scope and limits (p. 8-10) based on 3/23 TSG webex. (See: IEEE 1547* purpose, scope, limits p. 13-15) NOTE: We will address the Overview section later.
- 2) Review and red-line Regulated Utilities' Performance Categories proposal (p. 18-21) and response to normal and abnormal conditions (p. 22-23). Also, be familiar with relevant IEEE 1547 sections; including performance category assignment (Sec. 1.4 (p. 13-18) and Annex B (p. 105-113)); response to normal conditions (Sec. 5 (p. 37-45)); response to abnormal conditions (Sec. 6 (p. 45-67)
 - a. If you support statewide technical requirements addressing normal condition performance categories, propose language with rationale.
- 3) Utilities – please provide examples of normal and abnormal conditions you are seeing on your systems today (i.e. location; frequency of events; anticipated role and impacts of DER and DER response based on current and forecasted DER penetrations.)

*IEEE 1547 pg numbers are based on Draft 7.3 (December 2017)

Technical Subgroup Meeting 2 DRAFT AGENDA

Friday, April 13th

9:30am – 12:30pm

WebEx: <https://global.gotomeeting.com/join/432598661>

Dial in option (webex preferred): 1-571-317-3112; 432-598-661#

- 1) Introductions
- 2) Follow up on Statewide Technical Requirements Purpose, Scope and Limits
- 3) MISO presentation on Bulk Power System Voltage and Frequency issues; DER penetration; DER Impact Assessment efforts
- 4) Utility presentation on Area EPS Normal and Abnormal Conditions
- 5) Performance Categories and Response to Normal and Abnormal Conditions
 - a. Definition of performance category – Normal (A/B); Abnormal (I, II, III)
 - b. How a performance category is assigned and role of AGIR, utility, ISO/RTO
 - c. What assignment of a performance category means re: capability; implementation/utilization; DER impacts/consumer protections
 - d. Proposed Performance Category Assignments and DER Attribute Groupings
- 6) Next Steps/Homework – 10 mins

Phase II Technical Subgroup Roster:

Jeff Schoenecker/Craig Turner, Dakota Electric	Robert Jagusch, MMUA	John Dunlop/Chris Jarosch, MNSEIA
Lise Trudeau, Dept of Commerce	Kevin McLean/Jenna Warmuth, MN Power	Commissioner Matt Schuerger; Michelle Rosier; Cezar Panait; Pam Johnson, DOE Solar Energy Innovator Fellow (May 1)
Kevin Joyce/Katie Bell, EFCA	Kristi Robinson, MREA	Technical Assistance*: Michael Coddington and Michael Ingram, National Renewable Energy Laboratory Tom Key, Jens Boemer, Nadav Enbar; Electric Power Research Institute
Brian Lydic/Sky Stanfield/Laura Hannah – Joint Movants	Dean Pawlowski, Otter Tail Power	
Tam Kemabonta/Professor Mahmoud Kabalan, St. Thomas Affiliation	Patrick Dalton/John Harlander/Alan Urban, Xcel Energy	

*Technical assistance is not a participant or party to the docket and does not advocate for specific outcomes in the proceeding. The role of technical assistance is to support Commission staff in the process for these proceedings, and to provide an objective source of information or data, as requested, by Commission staff to understand areas of disagreement amongst participants.

Draft Meeting Topics Proposal:

<u>Date</u>	<u>Topic</u>
3/23/18	Meeting 1 Scope/Overview** (Walk through with explanations: Red-lined TIIR; List of topics in scope of TSMs; Definitions)
4/13/18	Meeting 2 Performance Categories**; Response to normal and abnormal conditions; MISO Bulk Power System
5/18/18	Meeting 3 Reactive Power and Voltage/Power Control Performance**; Protection Requirements
6/1/18	Full DGWG Meeting Technical Subgroup update; Phase I Update/Next Steps
6/8/18	Meeting 4 Energy Storage**; Non-Export and Inadvertent Export**
7/20/18	Meeting 5 Interoperability** (Monitor and Control Criteria); Metering**; cyber security
8/10/18	Meeting 6 Test and Verification**; Witness Test Protocol
9/14/18	Meeting 7 References; Definitions*; 1-line diagram requirements; Agreements*
9/21/18	Full DGWG Meeting 2

