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Smart Grid Subcommittee Report

October 2019

Smart Grid Subcommittee

Where we are at:

- Today we participated in a panel on Leveraging Phasor Measurement Units.
- Last meeting we discussed Big Data Analytics and Cybersecurity
- In the last month we have had unprecedented outages in California as a preventative for wildfires.

Smart Grid Subcommittee

Recent Deliverables:

2019: Policy and Research Opportunities for Grid Resilience

- ▶ Review of DOE 2018 Smart Grid report and suggestions for 2020.
- ▶ Optimizing Operating Reserves (Today)
- ▶ Recommended Structure for Resiliency Handbook (Today)

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Recent Panels:

2019:

- ▶ Cybersecurity
- ▶ Big Data
- ▶ Optimizing Operating Reserves
- ▶ Impediments to phasor Measurement Units

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Where are we going?:

We have the DOE/OE list of priorities

- North American Energy Resiliency Model (NAERM)
- Megawatt Scale Grid Storage
- Revolutionize Sensing Technology Utilization
- Transmission

Development of a Resiliency Handbook Framework

- In March of 2019, the EAC provided recommendations to the Department of Energy “Policy and Research recommendation for Grid Resilience”. In these recommendations, the EAC recommended to DOE that they create a “Resiliency Handbook”. DOE’s response suggested that it would be helpful if the EAC develop a framework for such a Handbook.
- The Smart Grid Subcommittee is asking for the approval of the EAC on this recommended framework.

Development of recommendations regarding Optimal reserve procurement

- Based upon the panel discussion in June and the deliberations of the Smart Grid Subcommittee, we are asking for approval of the EAC for a set of recommendations to the Department of Energy.

Data Analytics part 1 - Leveraging PMU data and Synchronphasors

- At the March EAC meeting we had a presentation on Big Data analytics
- As a phase 1 follow-up on that discussion, we are examining how big data analytics can help utilize Phasor Measurements in operations
- As part of that follow-up, today we had a panel discussing the impediments to leveraging synchronphasors and propose to develop a set of recommendations around this discussion
- We expect to continue the discussion of data analytics in future work products

Workforce development

- A repeated theme we encounter in all technical subjects is a need for an adequate workforce to support the industry.
- There is significant attrition.
- New skills are becoming necessary to the Grid, such as cyber security and data analytics.

Grid Planning

- ▶ We have discussed changing grid planning needs with renewable resources and DER. DOE had done considerable work on this topic, and several members have expressed interest in examining best practices under current conditions.
- ▶ Recent experience with removing transmission elements from service to prevent wildfires may change the assumptions for grid planning.

State and Federal coordination

- There is continued ambiguity about the State and Federal role in resiliency projects

Questions?

