Event and Performance Analysis (EPAS) Report

July 14, 2020

Greg Park (Northwest Power Pool)

EPAS Chair
Event and Performance Analysis Subcommittee (EPAS)
- Alan Wahlstrom (Southwest Power Pool) – Vice Chair
- James Hanson (WECC) - Staff Liaison

Relay Work Group (RWG)
- Randy Spacek (Avista) – Chair
- Dean Bender (Bonneville Power Administrator) – Vice Chair
- James Hanson (WECC) – Staff Liaison

Human Performance Work Group (HPWG)
- Rodney Krause (Bonneville Power Administration) – Chair
- Mel Ayala (Pacific Gas & Electric) – Vice Chair
- Scott Rowley (WECC) – Staff Liaison
Misoperation Review

- Continue to review MIDAS quarterly submittals for the WECC Region to provide feedback to entities for consistent reporting
- 2020 Q2 misoperations review in July
RWG Misoperation Report

- RWG 2018 Misoperation Report
  - Worked with James Hanson, Senior Engineer, Event Analysis to publish a report to include misoperation reduction strategy links.

- RWG 2019 Misoperation Report
  - Sub groups working on misoperation report to identify trends and recommendations
  - Analysis will be for a 4 year trend starting with 2016 data.
The OC work plan tasked the RWG in to evaluate impacts of resource mix on Protection Systems settings on fault duties.

- Task coincided with NERC Technical Report on Impacts of BPS-Connected Inverter-Based Resources on BPS Protection Systems
- RWG members participating on NERC review of the technical report.
Update:

• Presently updating “Communications System Performance Guide for Electric Protection Systems”

• Joint document with the Telecommunications Work Group
Participation

- RWG Members are participating in the following:
  - Short-Circuit Modeling Work Group
  - EPAS Event Review
  - NERC MIDAS Work Group
  - NERC System Protection and Control Subcommittee
The HPWG has been impacted due to COVID-19.

- The Electric Power Human Performance Symposium was postponed until March 2021. The work group is supporting the projects being stood up by the sub-groups and task forces listed below.
HP Knowledge Transfer Task Force

- Creating an internal evaluation guide to facilitate entity self-assessment regarding knowledge transfer practices
- Developing a best practices guide with industry examples of effective knowledge transfer
The HP Maturity Model Task Force

The HPMMTF has experienced some setbacks due to COVID-19

- The events where the model was scheduled to be presented at and to collect additional information from have all been postponed or cancelled.
- They are looking into various avenues to distribute a survey that will help with the framework of the Maturity model and the future of the project.
The HP Event Analysis Work Group

- Supporting the EPAS through participating in the meetings and looking at the selected events from the HP perspective.
EPAS - IBR Survey
Event and Performance Analysis

- Inverter Based Event Survey
- Distributed on June 29, 2020
  - Sent out to all WECC registered GOs, TPs and PCs
    - 266 GOs
    - 60 TPs
    - 33 PCs
- Delays due to IT staff changes at WECC and Covid -19
- Will host an open-door webinar on August 18, 2020 to review the results
Event and Performance Analysis

- Continues to meet on a monthly basis
  - Have been reviewing approximately 4 new EAS events monthly
  - Working with an entity to submit a new NERC lessons learned:
    - Subsequent relay misoperations at a generation substation involving replacement of electro-mechanical relays with microprocessor relays.
    - Replacement with new technology uncovered cryptic issues that older technologies were immune to.
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