

New MOD Standards

Uses of the Data and Discussion of the Standards

MOD-025, MOD-026, MOD-027, MOD-032, MOD-033

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BPA's Reliability Compliance Program

- Function of the Corporate portion (not Power or Transmission)
- Annual review of compliance documentation, new standard review, RRTs (violation determination), manage reliability compliance communications and filings with WECC and others
- Compliance Business Partners allow for specialization in particular areas
- Thought of as compliance judges, but in practice, this model is actually an internal control that is external to the business line to help ensure compliance.
- Provides reasonable assurance that BPA meets regulatory and compliance obligations while advancing BPA's business strategy and core value of operational excellence

Modeling

- Generally, the new MOD standards address two types of models, the operational model and the planning model.
- MOD-025, MOD-026 and MOD-027 seem to lean more toward the operational model
- MOD-032 and MOD-033 state they are for the planning model in the purpose statement.
- Unsure how it works if the TO/TOP is not using a State Estimator to manage operational planning

Uses of the Modeling Data

- Power system models are used to make decisions on capital investment and to set system operating limits
- Models failed to predict and reproduce the 1996 disturbances
- Loss of confidence in model's ability to set accurate transfer capability limits
- Planning and operational decisions are made based on system studies using computer models, without the accurate models, these study results give false outcomes
- Accurate and realistic assessments of dynamic response capability of all plants are essential for system stability especially in light of the changing grid (variable energy, load type, etc.)

Likely BPA Approach to Compliance

- Leverage current processes/procedures, both within BPA and in use in WECC
 - For example, see the WECC Generating Unit Model Validation Policy; and
 - WECC Generating Facility Data, Testing and Model Validation Requirements (which contains):
 - Generating Facility Model Validation Requirements
 - Generating Unit Baseline Test Requirements
 - Generating Facility Data Requirements
 - Guidelines for Over Excitation System Limiter (OEL) and Over Excitation Protection (OEP) Testing
 - Procedure for Handling Requests for Exemption Regarding the WECC Generator Test Policy
- Develop new processes/procedures as needed
 - MOD-026 R3, bullet 3

MOD-025-2

Verification and Data Reporting of Generator Real and Reactive Power Capability and Synchronous Condenser Reactive Power Capability

- R1 Generation Owner-Real Power
- R2 Generation Owner-Reactive Power
- R3 Transmission Owner-Reactive Power (Synchronous Condensers)
- Likely BPA perspective on R3-NA, no synchronous condensers

MOD-026-1

Verification of Models and Data for Generator Excitation Control System or Plant Volt/Var Control Functions

- R1 Transmission Planner-Instructions and Existing information
- R2 Generator Owner-Specified information
- R3 Generator Owner-Written Response
- R4 Generator Owner-Revised Data
- R5 Generator Owner-Written Response
- R6 Transmission Planner-Written Response
- Likely BPA compliance perspective-See WECC Generating Unit Model Validation Policy

MOD-027-1

Verification of Models and Data for Turbine/Governor and Load Control or Active Power/Frequency Control Functions

- R1 Transmission Planner-Instructions and Existing information
- R2 Generator Owner-Specified information
- R3 Generator Owner-Written Response
- R4 Generator Owner-Revised Data
- R5 Transmission Planner-Written Response
- Likely BPA compliance perspective-See WECC Generating Unit Model Validation Policy

MOD-032-1

Data for Power System Modeling and Analysis

- R1 Planning Coordinator/Transmission Planner to develop data requirements
- R2 Each Balancing Authority, Generator Owner, Load Serving Entity, Resource Planner, Transmission Owner and Transmission Service Provider shall provide the required information
- R3 Each notified Balancing Authority, Generator Owner, Load Serving Entity, Resource Planner, Transmission Owner or Transmission Service Provider shall respond to technical concerns
- R4 Planning Coordinator to provide models to ERO (WECC)
- This combined several standards, MOD-011, MOD-013, MOD-014 and MOD-015 into a new, consolidated standard

MOD-033-1

Steady-State and Dynamic System Model Validation

- R1 Planning Coordinator to implement a data validation process
- R2 Reliability Coordinator and Transmission Operator to provide data to Planning Coordinator that requests it
- Per the Guidelines and Technical Basis, this is to test the models created against actual system performance

Compliance Thoughts

- Timelines, Timelines, Timelines
- Technical Responses
- Understand Data Requirements
- Ask Questions
- Timelines, Timelines, Timelines

To Be Resolved

- Functional Meanings
 - What does a TP do? What does a PC/PA do?
- BAL-003
 - WECC Standards Committee has a new standard for Governor Droop Settings held in abeyance pending BAL-003. What happens now that FERC has ordered BAL-003 mandatory?