

# OITT Task Team Meeting

Potential NERC Standards to be  
Modified for PMUs

# Standard Review

- First pass at a list of NERC standards that *may* be modified to consider PMUs and their applications
- List can be broken down into two main groups
  - Require immediate modification for monitoring of system conditions, maintenance requirements, model validation, etc.
  - Desirable to change as PMUs begin to be used for things like setting SOLs and IROLs, path ratings, etc. based on angular separation or open breaker closing angles
- Alphabetical order; no prioritization is intended or implied

# BAL, CIP

- **BAL-003 - Frequency Response and Bias**
- **CIP-002 - Critical Cyber Asset Identification**
- **CIP-005 - Electronic Security Perimeter(s)**
- **CIP-007 - Systems Security Management**
- **CIP-009 - Recovery Plans for Critical Cyber Asset**

# COM, EOP, FAC

- **COM-001 — Telecommunications**
- **EOP-005 — System Restoration from Blackstart Resources**
- **FAC-001 — Facility Connection Requirements**
- **FAC-011 — System Operating Limits Methodology for the Operations Horizon**
  - Incorporation of angular separation across open breakers
- **FAC-013 — Assessment of Transfer Capability for the Near-term Transmission Planning Horizon**

# IRO

- **IRO-002— Facilities**
- **IRO-003— Wide-Area View**
- **IRO-005 —Current Day Operations**
- **IRO-010 — Reliability Coordinator Data Specification and Collection**

# MOD

- **MOD-026 — Verification and modeling of Generator Excitation Systems and Voltage Controls**
- **MOD-027 — Verification and Status of Generator Frequency Response**

# PRC

- **PRC-002 — Define Regional Disturbance Monitoring and Reporting Requirements**
- **PRC-003 — Regional Procedure for Analysis of Misoperations of Transmission and Generation Protection Systems**
- **PRC-004 — Analysis and Mitigation of Transmission and Generation Protection System Misoperations**
- **PRC-005 — Transmission and Generation Protection System Maintenance and Testing**

# PRC

- **PRC-009 — UFLS Performance Following an Underfrequency Event**
- **PRC-012 — Special Protection System Review Procedure**
- **PRC-013 — Special Protection System Database**
- **PRC-014 — Special Protection System Assessment**



# PRC

- **PRC-015 — Special Protection System Data and Documentation**
- **PRC-016 — Special Protection System Misoperations**
- **PRC-017 — Special Protection System Maintenance and Testing**
- **PRC-018 — Disturbance Monitoring Equipment Installation and Data Reporting**

# TOP

- **TOP-002 — Operations Planning**
- **TOP-003 — Planned Outage Coordination**
- **TOP-005 — Operational Reliability Information**
- **TOP-006-2 — Monitoring System Conditions**

# TPL, VAR

- **TPL-002 — System Performance Following Loss of a Single BES Element**
- **TPL-003 — System Performance Following Loss of Two or More BES Elements**
- **TPL-004 — System Performance Following Extreme BES Events**
- **VAR-001 — Voltage and Reactive Control**