Title of Proposed Standard:	Coordinate Operations
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SAR Requestor Information		SAR Type **(Put an 'x' in front of one of these selections)**	
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Purpose / Industry Need

To ensure that the operations of each Reliability Authority function (RA) are coordinated such that they will not have an adverse impact on the reliability of other RAs and to preserve the reliability benefits of interconnected operations.

Brief Description

Establish requirements for the coordinated operation between RA's for operational (near-term) planning, real-time operations, and maintenance of the interconnected bulk electric system.

This standard will address the following areas:

- Documenting the RAs authority to assist in resolving problems that it is caused to another system
- Developing and Sharing Unique Operating Procedures
- Analyzing Maintenance Outages
- Performing Security Analyses
- Performing Generation Resource Availability Analyses
- Sharing Results of Analyses
- Communicating with Others
- Acting with Others

Detailed Description

Requirements shall be developed for the following:

- Document Authority
  - When one RA's system has a potential or actual adverse impact[1] on another RA's system, the RA that caused the problem shall have the authority to take actions (within its own RA Area) to mitigate the problem.
- Develop and Share Unique Operating Procedures
  - Unique operating procedures that address identified potential operating scenarios that may impact neighbor RAs or the Interconnection shall be developed, and distributed to all involved parties.
- Analyze Maintenance Outages
  - Analyze the impact of generation outages from a reliability perspective
  - Analyze the impact of transmission outages from a reliability perspective
- Perform Security Analyses
  - The RA shall ensure that reliability analyses (including but not limited to a day-ahead analysis) are performed for all Transmission Operators (TOPs) in its Reliability Area and that such analysis is coordinated with similar analysis performed by neighboring RAs. The purpose of these analyses is to look at the impact of one RA's system on other systems and to assure that the interconnected bulk power system can be operated in both anticipated normal and contingency conditions.
- Perform Generation Resource Availability Analyses
  - Each RA shall analyze generation resource availability for its impact
- Share Results of Analyses
  - The RA shall share the results of its system analyses, when conditions[2] warrant, or upon request, with other RAs, and other involved entities within its Interconnection.
- Communicate with Others
  - The RA shall notify other impacted RAs under the following circumstances:
    - If a generator or transmission outage will impact another RA within the same Interconnection
    - If outages of information technology (IT) systems (telemetering, communications, and/or control equipment or other information systems) impact the ability of one RA to receive/send data or voice communications
    - If the results of analyses or real-time conditions indicate potential or actual reliability problems
    - If the actual interconnection frequency is outside the defined interconnection frequency limits
    - If the backup control center of the RA must be activated due to loss of the primary control center
- Act with Others
  - Communicate with other RAs to identify and implement a solution to prevent/resolve

[1] The impacts in this SAR are those that if left unattended could cause instability, uncontrolled separation or cascading outages that adversely impact the reliability of the interconnected bulk transmission system

[2] The conditions referenced are those that if left unattended could cause instability, uncontrolled separation or cascading outages that adversely impact the reliability of the interconnected bulk transmission system.

actual/impending operating problems such as:

- Reliability problems that can't be resolved through existing procedures
- Interconnection frequency outside the defined interconnection frequency limits
- Prioritization of transmission outages
- Prioritization of IT outages
- Implement Interconnection-wide transmission reliability preservation procedures in conjunction with all RAs in that Interconnection

Reliability Functions

The Standard will Apply to the Following Functions ***(Put an 'X' in front of each one that applies)***		
X	Reliability Authority	Ensures the reliability of the bulk transmission system within its Security Authority Area. This is the highest reliability authority.
	Balancing Authority	Integrates resource plans ahead of time, and maintains load-interchange-resource balance within its metered boundary and supports system frequency in real time
	Interchange Authority	Authorizes valid and balanced Interchange Schedules
	Planning Authority	Plans the bulk electric system
	Transmission Service Provider	Provides transmission services to qualified market participants under applicable transmission service agreements
	Transmission Owner	Owns transmission facilities
	Transmission Operator	Operates and maintains the transmission facilities, and executes switching orders
	Distribution Provider	Provides and operates the "wires" between the transmission system and the customer
	Generator	Owns and operates generation unit(s) or runs a market for generation products that performs the functions of supplying energy and Interconnected Operations Services
	Purchasing-Selling Entity	The function of purchasing or selling energy, capacity and all necessary Interconnected Operations Services as required.
	Load-Serving Entity	Secures energy and transmission (and related generation services) to serve the end user

Reliability and Market Interface Principles

Applicable Reliability Principles ***(Put an 'x in front of all that apply)***	
X	1. Interconnected bulk electric systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions.
X	2. The frequency of interconnected bulk electric systems shall be controlled within defined limits through the balancing of electric supply and demand
X	3. Information necessary for planning and operation of interconnected bulk electric systems shall be made available to those entities responsible for planning and operating the systems reliably
X	4. Plans for emergency operation and system restoration of interconnected bulk electric systems shall be developed, coordinated, maintained and implemented
X	5. Facilities for communication, monitoring and control shall be provided, used and maintained for the reliability of interconnected bulk electric systems
X	6. Personnel responsible for planning and operating interconnected bulk electric systems shall be trained, qualified and have the responsibility and authority to implement actions
X	7. The security of the interconnected bulk electric systems shall be assessed, monitored and maintained on a wide area basis
Does the proposed Standard comply with all of the following Market Interface Principles? *(Enter 'yes' or 'no')*	Yes
1.	Interconnected The planning and operation of bulk electric systems shall recognize that reliability is an essential requirement of a robust North American economy
2.	An Organization Standard shall not give any market participant an unfair competitive advantage
3.	An Organization Standard shall neither mandate nor prohibit any specific market structure
4.	An Organization Standard shall not preclude market solutions to achieving compliance with that Standard
5.	An Organization Standard shall not require the public disclosure of commercially sensitive information. All market participants shall have equal opportunity to access commercially non-sensitive information that is required for compliance with reliability standards

Related SARs

SAR ID	Explanation
COOR INTERCHNG_01_01	The "Coordinate Interchange" SAR addresses the coordination of data exchange associated with transactions and may have some requirements that interface with the "Coordinate Operations" SAR.
FACILITY_RATINGS_01_01	The "Determine Facility Ratings, Operating Limits, and Transfer Capabilities" SAR identifies how operating limits are established. The operating limits established within this proposed standard will interface with the performance standards within the "Coordinate Operations" SAR.
OPER_WITHN_LMTS_01_01	The "Monitor and Assess Short Term Reliability, Operate Within Limits" SAR identifies requirements for operating within limits in real time and may interface with some of the requirements for the "Coordinate Operations" SAR.
ABNML_&_EM_COND_01_01	The "Prepare for and Respond to Abnormal or Emergency Conditions" SAR identifies requirements for recognizing and responding to emergency conditions and may interface with some of the coordination requirements for the "Coordinate Operations" SAR.
BLACK_ISLD_COND_01_01	The "Prepare for and Respond to Blackout or Island Conditions" SAR identifies requirements for recognizing and responding to blackout or island conditions and may interface with some of the coordination requirements for the "Coordinate Operations" SAR.
BAL_RES_&_DEMND_01_03	The "Balance Resources and Demand" SAR identifies requirements for operating within a defined interconnection frequency limits and may interface with some of the requirements for the "Coordinate Operations" SAR.
DISTURBNCE_COND_01_01	The "Monitor and Analyze Disturbances, Events and Conditions" SAR identifies requirements for monitoring, reporting and analyzing disturbances, events, and conditions and some of the requirements may interface with some of the requirements for "Coordinate Operations" SAR.

Regional / Interconnection Differences

Region	Explanation
ECAR	
ERCOT	
FRCC	
MAAC	
MAIN	
MAPP	
NPCC	
SERC	
SPP	
WECC	

Implementation Plan (Preliminary)

Description
The following sections of Operating Policies should be retired when this standard is implemented: Policy 4. C (all elements) Policy 9: A (all elements) Policy 9.B.1 Policy 9.B.4 Policy 9.C.2 Appendix 9.D. B.1.5 Appendix 9.D.B.1.6 Appendix 9.D.B.1.7

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