

SAR: Coordinate Operations

Title of Proposed Standard:	Coordinate Operations Between Reliability Authorities
Request Date:	March 7, 2002
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SAR ID# :	COORD OPERATONS 01 03

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 each RA's operations are coordinated such that they will not have an adverse impact on the reliability of other RA's and to preserve the reliability benefits of interconnected operations.

Brief Description

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

This standard will address the following areas:

- Documenting the RA's authority to assist in resolving problems that its caused to another system
- Developing, Maintaining and Sharing 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:

- Develop, Maintain and Share Operating Procedures
 - Operating procedures that address identified potential operating scenarios that may impact neighbor RA's or the Interconnection shall be developed, and distributed to all entities that are expected to take action or that may be impacted as a result of this procedure.
- Analyze Maintenance Outages (real time to 12 months ahead)
 - Analyze the impact of generation outages from a reliability perspective
 - Analyze the impact of transmission outages from a reliability perspective
- Coordinate Reliability Analyses (Generator Resources and Transmission Facilities) (For current and next day and for its impact on other systems)
 - The RA shall coordinate the development of its reliability analyses with other RAs. These analyses shall consider known generation and transmission outages.
 - The RA shall share the results of its system analyses, when conditions¹ warrant, with other RA's, and other involved entities (or upon request, subject to the FERC Code of Conduct and other Confidentiality Agreements)
- Communicate with other impacted RAs to share information:
 - The RA shall communicate with other impacted RAs whenever there is a known potential or actual condition that may adversely affect another RA's Area, such as:
 - A generator or transmission outage will impact another RA
 - Outages of information technology (IT) systems (telemetry, communications, and/or control equipment or other information systems) prevent an RA from performing a reliability analysis of its RA Area or impact the ability of one RA to receive/send data or voice communications to another RA
 - Results of analyses or real-time conditions indicate potential or actual reliability problems
 - Physical or cyber attacks have been threatened or have occurred
- Communicate with other impacted RAs to identify, agree upon, and act or direct others to act to implement solutions to prevent/resolve impending/actual operating problems such as:
 - When interconnection -wide transmission reliability preservation procedures need to be implemented
 - When a reliability problem occurs that requires the initiation/coordination of Operating Procedures or the development of new or temporary procedures.
 - When interconnection frequency is exceeding interconnection frequency limits
 - For prioritization of transmission outages
 - For prioritization of IT outages

The standard shall address appropriate actions when RAs cannot agree upon a solution for an impending or actual problem.

¹ 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.

Reliability Functions

The Standard will Apply to the Following Functions <i>(Put an 'X' in front of each one that applies)</i>		
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	Owens 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	Owens 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 <i>(Put an 'x' in front of all that apply)</i>	
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?	
<i>(Enter 'yes' or 'no')</i>	
	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_LMITS_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

SAR Drafting Team Assignments

<p>Chairman:</p> <ul style="list-style-type: none">- David McNeil, Entergy <p>Secretary:</p> <ul style="list-style-type: none">- Larry Kezele, NERC Staff <p>Requestor:</p> <ul style="list-style-type: none">- Jim Byrd (Roger Harszy, Midwest ISO (Substitute Requestor)) <p>Compliance Representative:</p> <ul style="list-style-type: none">- Stan Kopman, NPCC <p>Industry Representatives:</p> <ul style="list-style-type: none">- Daniel Boezio, AEP- Don Gold, BPA- Tony Jankowski, WE-Energies- Joseph Krupar, FMPA- Ross Owen, Oncor- Jerry Ray, Illinois Power- Gary Rudder, TVA- Greg Tilitson, CAISO
