

Standard Authorization Request Form

Title of Proposed Standard Glossary of Terms change System Operator definition (Project 2010-16 – Definition of System Operator)	
Request Date	October 5, 2010
SC Approval Date	October 13, 2010

SAR Requester Information		SAR Type <i>(Check a box for each one that applies.)</i>	
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Purpose (Describe what the standard action will achieve in support of bulk power system reliability.)

Deletion of Generator Operator from the current definition of System Operator will more accurately describe the current operation of the bulk electric system. Inaccurate definitions results in misconception of responsibilities and expectations which can negatively impact reliability.

Current Definition of System Operator: An individual at a control center (Balancing Authority, Transmission Operator, Generator Operator, Reliability Coordinator) whose responsibility it is to monitor and control that (the) electric system in real time.

Proposed New Definition: "An individual at a control center (Balancing Authority, Transmission Operator, Reliability Coordinator) whose responsibility it is to monitor and control the Bulk Electric System in real time.

Industry Need (Provide a justification for the development or revision of the standard, including an assessment of the reliability and market interface impacts of implementing or not implementing the standard action.)

The current definition of System Operator is influenced by the organization of the industry prior to [electric industry restructuring, separation of functions under FERC order 889, and the development of the Functional Model](#). Specifically to the era where the generator dispatcher sat in the same control room as the transmission operator or at a minimum in a control center down the hall from the TOP. The earliest definition of system operator that the requester could locate appeared in the "**Consensus Legislative Language on Reliability Approved by NERC Board of Trustees - February 1, 1999**"

"(10) The term 'System Operator' means any entity that operates or is responsible for the operation of a Bulk-Power System, including but not limited to a control area operator, an independent system operator, a transmission company, a transmission system operator, or a regional security coordinator.

Clearly generator operator was added to the definition of system operator sometime after 1999 for reasons unknown to the requestor.

~~FERC Order 889 established rules of conduct for the industry. Order 889 prohibits a generation affiliate of a TOP from knowing any non-public information pertaining to the real time status of the Bulk Electric System (BES). NERC's Functional Model generally defines the responsibilities of the Generator Operator as "operat(ing) generating unit(s) and perform(ing) the functions of supplying energy and reliability related services." Given this limited scope, —T~~the GOP can-not be considered as operating on the same level as the RC, TOP or BA when it comes to real time information on the status of the BES. Hence the GOP's real time operating personnel are no more System Operators than the real-time operating personnel who work for the Distribution Provider, Purchase-selling Entity or Load Serving Entity. The GOP cannot be relied upon to monitor and control the BES. The GOP can not take unilateral action with its own assets. The GOP can not do anything unless instructed by or with the approval of the RC, TOP or BA. The GOP cannot perform contingency analysis, institute transmission switching orders, know real time transmission line flows and status, flow gate data or issue TLR's. The GOP only monitors and controls the generators that it operates and relays information to other operating entities. GOP should be dropped from the definition of System Operator to avoid confusion and any resulting negative impact on reliability.

Brief Description (Provide a paragraph that describes the scope of this standard action.)

Revise the definition of System Operator deleting Generator Operator to clarify that Generator Operators do not have the responsibility, facilities, or authority to monitor the

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Bulk Electric System.

Detailed Description (Provide a description of the proposed project with sufficient details for the standard drafting team to execute the SAR.)

See Industry Need above.

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Reliability Functions impacted by proposed definition change:

The Standard will Apply to the Following Functions <i>(Check box for each one that applies.)</i>		
<input type="checkbox"/>	Reliability Assurer	Monitors and evaluates the activities related to planning and operations, and coordinates activities of Responsible Entities to secure the reliability of the bulk power system within a Reliability Assurer Area and adjacent areas.
<input type="checkbox"/>	Reliability Coordinator	Responsible for the real-time operating reliability of its Reliability Coordinator Area in coordination with its neighboring Reliability Coordinator's wide area view.
<input type="checkbox"/>	Balancing Authority	Integrates resource plans ahead of time, and maintains load-interchange-resource balance within a Balancing Authority Area and supports Interconnection frequency in real time.
<input type="checkbox"/>	Interchange Authority	Ensures communication of interchange transactions for reliability evaluation purposes and coordinates implementation of valid and balanced interchange schedules between Balancing Authority Areas.
<input type="checkbox"/>	Planning Coordinator	Assesses the longer-term reliability of its Planning Coordinator Area.
<input type="checkbox"/>	Resource Planner	Develops a >one year plan for the resource adequacy of its specific loads within its portion of the Planning Coordinator's Area.
<input type="checkbox"/>	Transmission Owner	Owns and maintains transmission facilities.
<input type="checkbox"/>	Transmission Operator	Ensures the real-time operating reliability of the transmission assets within a Transmission Operator Area.
<input type="checkbox"/>	Transmission Planner	Develops a >one year plan for the reliability of the interconnected Bulk Electric System within the Transmission Planner Area.
<input type="checkbox"/>	Transmission Service Provider	Administers the transmission tariff and provides transmission services under applicable transmission service agreements (e.g., the pro forma tariff).
<input type="checkbox"/>	Distribution Provider	Delivers electrical energy to the End-use customer.
<input type="checkbox"/>	Generator Owner	Owns and maintains generation facilities.
<input checked="" type="checkbox"/>	Generator Operator	Operates generation unit(s) to provide real and reactive power.
<input type="checkbox"/>	Purchasing-Selling Entity	Purchases or sells energy, capacity, and necessary reliability-related services as required.
<input type="checkbox"/>	Load-Serving Entity	Secures energy and transmission service (and reliability-related services) to serve the End-use Customer.

Reliability and Market Interface Principles

Applicable Reliability Principles <i>(Check box for all that apply.)</i>	
X	1. Interconnected bulk power systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions as defined in the NERC Standards.
X	2. The frequency and voltage of interconnected bulk power systems shall be controlled within defined limits through the balancing of real and reactive power supply and demand.
X	3. Information necessary for the planning and operation of interconnected bulk power 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 power 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 power systems.
X	6. Personnel responsible for planning and operating interconnected bulk power systems shall be trained, qualified, and have the responsibility and authority to implement actions.
X	7. The security of the interconnected bulk power systems shall be assessed, monitored and maintained on a wide area basis.
X	8. Bulk power systems shall be protected from malicious physical or cyber attacks.
Does the proposed Standard comply with all of the following Market Interface Principles? <i>(Select 'yes' or 'no' from the drop-down box.)</i>	
1. A reliability standard shall not give any market participant an unfair competitive advantage. YES	
2. A reliability standard shall neither mandate nor prohibit any specific market structure. Yes	
3. A reliability standard shall not preclude market solutions to achieving compliance with that standard. Yes	
4. A reliability 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. Yes	

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Related Standards

Standard No.	Explanation

Related SARs

SAR ID	Explanation

Regional Variances

Region	Explanation
ERCOT	
FRCC	
MRO	
NPCC	
SERC	
RFC	
SPP	
WECC	