

Attachment OC-AQCIE 6.1b

Metrics Used by FERC to Assess RTO/ISO Performance Relative to Independent Transmission Companies

Performance Area	Metric Name	Specific Metric(s)	Definition
Reliability	NERC Reliability Standards Compliance ¹	1. References to which NERC standards are applicable	Number of violations of NERC reliability standards, how violations are reported, and the severity of the violation
		2. Number of violations self-reported and made public by NERC/FERC	
		3. Number of violations identified and made public as NERC audit findings	
		4. Total number of violations made public by NERC/FERC	
		5. Severity level of each violation made public by NERC/FERC	
		6. Compliance with operating reserve standards	
		7. Unserved energy (or load shedding) caused by violations. Additional detail will be provided on	
		(a) number of events	
	(b) duration of the events		
	(c) whether the events occurred during on/off-peak hours		
	(d) additional information on equipment types affected and kv of lines affected		
	(e) number of events (and severity and duration of events) resulting in load shedding based on the utilization of TPL-002 Footnote b criteria		
Dispatch Reliability	1. Balancing Authority Area Control Error Limit (BAAL) or Control Performance Standard (CPS) 1 and 2 ² 2. Energy Management System (EMS) Availability for performing real-time monitoring and security analysis functions	Reported as a percentage of minutes of operational availability each year	
Load Forecast Accuracy	Actual peak load as a percentage variance from forecasted peak load	Percentage variance of actual peak load compared to day-ahead forecasted peak load	
Wind Forecasting Accuracy	Actual wind availability compared to forecasted wind availability	Percentage accuracy of actual wind availability compared to day-ahead forecasted wind availability	
Unscheduled Flows	Difference between net actual interchange (actual measured power flow in real time) and the net scheduled interchange in megawatt hours	Difference between scheduled and actual flows	
Transmission Outage Coordination	1. Percentage of ≥ 200 kV planned outages of 5 days or more for which ISO, RTO or utility notified customers at least 1 month prior to the outage commencement date	(1) early notification of planned outages >5 days on major transmission lines and (2) cancellations of outages, measured as a percentage of all outages.	
	2. Percentage of ≥ 200kV outages cancelled by utility after being approved previously		
Long-Term Reliability Planning - Transmission	1. Number of facilities approved for construction due to reliability purposes	Tracks effectiveness of planning process in facilitating the development of the transmission system	
	2. Percentage of approved construction projects on schedule and completed		
	3. Performance of planning process related to: (a) Completion of reliability studies (b) Completion of economic studies		
Long-Term Reliability Planning - Resources	1. Processing time for generation interconnection requests		
	2. Actual reserve margins compared with planned reserve margins		
Interconnection and Transmission Process Metrics	1. Number of requests	Track the progress made in completing reliability reviews of interconnection and transmission service requests in a timely and efficient manner.	
	2. Number of studies completed		
	3. Average age of incomplete studies		
	4. Average time for completed studies		
	5. Total cost and types of studies completed (e.g., feasibility study, system impact study and facility study)		
Special Protection Systems	1. Number of special protection systems	Measure the number and performance of such systems	
	2. Percentage of special protection systems that responded as designed when activated		
	3. Number of unintended activations		
System Operations	System Lambda	System Lambda (on marginal unit): does not apply to ISOs, RTOs or utilities where the marginal price is set by hydro units and will be based on data provided in FERC Form 714	Incremental cost of energy of the marginal unit assuming no system constraints
	Resource Availability		Percentage of time that system resources are available after accounting for unplanned outages, as measured by the system forced outage rate. (One minus the forced outage rate)
		System forced outage rate as measured over 12 months	
	Fuel Diversity	Fuel diversity in terms of energy produced and installed capacity	Percentage mix of fuel types installed, available, and produced

¹Utilities outside ISO and RTO regions should limit reporting to the same eight functional areas used by the ISOs and RTOs:

²Control Performance Standard 1 is a statistical measure of Area Control Error variability. This standard measures Area Control Error in combination with the Interconnection's frequency error. It is based on an equation derived from frequency based statistical theory. Control Performance Standard 2 is a statistical measure of Area Control Error magnitude. The standard is designed to limit a control area's unscheduled power flows.