Section 1 – Performance Metrics

(This section includes the fourteen common performance metric topics on which all ISOs/RTOs will report – six Reliability metrics, five Markets metrics and three Organizational Effectiveness metrics.)

Performance Metric		Specific Metric(s)
Reliability		
A.	National or Regional Reliability Standards Compliance	1. References to which Electricity Reliability Organization (ERO) and Regional Reliability Organization (RRO) standards are applicable to each ISO/RTO 2. Number of violations self-reported 3. Number of violations identified as RRO or ERO audit findings 4. Total number of violations 5. Severity level of each violation
B.	Dispatch Reliability	1. Balance Authority Ace Limit (BAAL) OR// CPS1 and CPS2 2. Number of transmission load reliefs or unscheduled flows per a defined time period
C.	Operational Planning – Load Forecast Accuracy	Actual load as a percentage variance from forecasted load (separate metrics for peak and valley metric)
D.	Long-Term Reliability Planning – Transmission	1. Number of facilities approved to be constructed for reliability purposes 2. Percentage of approved construction on schedule and completed 3. Performance of Order 890 planning process related to: a. Completion of reliability studies b. Completion of economic studies
E,	Long-Term Reliability Planning – Generation	1. Processing time for generation interconnection requests 2. Actual reserve margins compared with planned reserve margins
F.	Transmission Outage Coordination	1. Percentage of $\geq$ 200kV planned outages of 5 days or more that are submitted to ISO/RTO at least 1 month prior to the outage commencement date 2. Percentage of planned outages studied in the respective ISO/RTO Tariff/Manual established

		timeframes 3. Percentage of ≥ 200 kV outages cancelled by ISO/RTO after having been previously approval 4. Percentage of ≥ 200kV outages (both planned and unplanned) with less than 2 days notice

Performance Metric		Specific Metric(s)
Markets		
A.	Market Pricing	1. Load-Weighted Locational Marginal Prices 2. Components of Total Power Costs based on Load-Weighted Locational Marginal Prices (e.g. fuel costs, transmission charges, RTO costs, etc.) 3. Load-Weighted, Fuel-Adjusted Locational Marginal Prices
B	Generator Availability	1 – RTO forced outage rate
C.	Congestion Management	1. Congestion charges as per megawatt hour of load served 2. Percentage of congestion dollars hedged through RTO-administered congestion management markets
D.	Demand Response	1. Demand response megawatts as a percentage of total capacity 2. Demand response megawatt hours as a percentage of total ancillary services
E.	Renewables	Renewable megawatts as a percentage of total energy
Organizational Effectiveness		
A.	Administrative Costs	1. Annual actual ISO/RTO administrative charges to members compared with budgeted administrative charges 2. Annual actual ISO/RTO administrative charges to members as cents per megawatt hour of load served
B.	Customer Satisfaction	Percentage of satisfied members
C.	Billing Controls	SAS 70 audit scope (e.g. Type 1 or Type 2 audit) and results

Section 2 – Additional Information

(This section includes eight additional topics on which all ISOs/RTOs will report, if applicable, and will be designated as information that might be useful in understanding ISO/RTO operations but not as indicative of measuring ISO/RTO performance.)

Additional Information		Specific Data
A.	Infrastructure Investment – Interconnection and Transmission Process Metrics	1. Number of requests 2. Number of studies completed 3. Average aging of incomplete studies 4. Average time for completed studies 5. Average cost of each type of study completed (e.g. feasibility study, system impact study, etc.)
B.	Special Protection Schemes (SPSs)	1. How many SPSs are on the ISO/RTO system, split between permanent and interim until planning solution implemented? 2. How often were the SPSs purposely activated and percentage that responded as designed? 3. How often did the SPSs activate when not supposed to?
C.	Wind forecasting accuracy	Actual wind availability compared with forecasted wind availability
D.	Unscheduled flows	Megawatt hours of unscheduled flows by interface; monthly average hourly integrated and highest hourly value for full year
E.	System Lambda	System Lambda (on marginal unit); unconstrained energy portion of locational marginal price
F.	Fuel Diversity	Fuel diversity in terms of energy, installed capacity and actual production
G.	Energy Market Price Convergence	Day-ahead and real-time price convergence in dollars and as a percentage variance

Additional Information		Specific Data
H.	Backup Facility	Describe the ISO/RTO backup facility capabilities, such as: • Does backup control center exist? • Is it manned and maintained in hot standby mode? • How long (if any) lag to full operations at backup control center? (Continuous operation assumed for ISOs/RTOs) • Number of tests and exercises completed and summary scope of each • Number of shifts/operators/years at the alternate control center • Level of telecommunications and data independence • Any difference(s) between primary and backup control center functionality

Section 3 – ISO/RTO Specific Key Initiatives

(This section would allow each ISO/RTO to highlight any organization-specific initiatives from the previous year and/or of key focus areas for the upcoming year. Each CEO would determine annually which items should be included in their respective ISO/RTO portion of this Section 3 of the report.)

ISO/RTO	Specific Initiatives
California ISO	To be determined
ISO New England	To be determined
Midwest ISO	To be determined
New York ISO	To be determined
PJM Interconnection	To be determined
Southwest Power Pool	To be determined

Additional Suggestions

(FERC recently received some suggestions for consideration as potential additional items in the ISO/RTO Metric Report. The items below from those suggestions are under review to identify a potential subset that might be included.)

1. Total number and/or megawatt hours of offers mitigated per transmission zone and/or by generation unit type for the year.
2. Number of times prices are flagged and checked; number/size of market price corrections
3. Long term transmission rights or ISOs/RTOs with long-term transmission rights (megawatts, number granted)
4. Monthly or seasonal congestion dollars for past five years
5. Amount of new transmission facilities (i) approved and (ii) constructed within the last year, broken down by: constructing transmission owner; miles of line; kV of facilities constructed; reason for construction (reliability, economics, or both).
6. Forced and unforced generator availability statistics
7. Reliability fines in dollars
8. Congestion as a percentage of total costs per megawatt hour
9. Measure demand response for energy, ancillary and capacity markets

Document Content(s)