Fload Loss	Metric	Definition	Score	S	M	A	R	T	Team Assigned	Action	2010 Metrics	Status
ALR1-1	Generator Reactive Limit Metric:Voltage schedules	How many times did generators encounter var limits associated with holding voltage schedule.	10	3	2	1	1	3	1	**Initial pilot effort completed, reaching to other groups for more feedback**		**Withdrawn**
ALR1-2	Maintaining the required amount of reserve (BAL-002, reserve contingency requirement)	Under normal operating conditions Operating hour by hour - Operating metric (BAs and REs may have the data via compliance audits) - may be able to link to frequecny response/frequency excursion issues we are currently experiening	**13**	**3**	**2**	**2**	**3**	**3**	**1**	**RMWG Discussion was held**		**Considered not advanced**
ALR1-3	Planning Reserve Margin (15% fossil, 10% hydro per NERC staff and RAS	Reserve Margin % = (Capacity-Load)/LoadX100 - planning metric - use seasonal and LTRA data (RAS has LT metric and data, 1 year historic data available)	**13**	**2**	**3**	**3**	**2**	**3**	**1** (Team 3)	**Proposed by Team 3**		**Approved**
ALR1-4	BPS Transmission Related Events Resulting in Loss of Load	Approved	**15**	**3**	**3**	**3**	**3**	**3**	**3**	**RMWG Discussion was held**		**Approved**
ALR1-5	System Voltage Performance	At select transmission system nodes (e.g., busses), record node (bus) voltage level in one minute time increments. Record the number of minutes the actual voltage level is outside a predetermined range around nominal.	**???**	**John Simpson need to assign SMART rating**						**Pilot effort is completed. To be considered in November Face to Face**		**Approved**
ALR1-10	Average Frequency Error	Average of frequency deviation on a monthly basis	**Dismissed**							**Proposed by RS**		**Considered not advanced**
ALR1-11	Daily Frequency Outlier Noise	Number of outlier days per month or mean time between outlier days	**Dismissed**							**Proposed by RS**		**Considered not advanced**
ALR1-12	Interconnection Frequency Response	Average frequency responses for all events where frequency drops more than 35 mHz within a year	**11**	**2**	**2**	**2**	**3**	**2**	**1**	**RMWG Discussion was held**		**Approved**
ALR1-13	Large Unit Trips	Number of large unit trips each quarter	**Dismissed**							**Proposed by RS**		**Considered not advanced**
ALR2-2	SPS Operations	Number of inter regional-impactive SPS operations (ref. PRC-001), including SPS misoperations – ref. PRC-016	**10**	**3**	**2**	**1**	**2**	**2**	**1** (Team 2)	**Proposed by Team 2**		**Considered not advanced**
ALR2-3	UFLS Usage	UFLS and UVLS resulting in loss of load: Standards cover reporting UFLS and UVLS are PRC-009 and PRC-002	**10**	**3**	**2**	**1**	**2**	**2**	**1**	**Considered not advanced**		**Considered not advanced**

Fload Loss	Metric	Definition	Score	S	M	A	R	T	Team Assigned	Action	2010 Metrics	Status
ALR2-4	Average Percent Non-Recovery of Disturbance Control Standard (DCS) Events	100% Recovery within the Recovery Period (BAs, or Reserve Sharing Group), measure individual BA/RSG per BAL-002; benchmark all Bas/RSG and 4 interconnections	**15**	**3**	**3**	**3**	**3**	**3**	**1**	**RMWG Discussion was held**		**Approved**
ALR2-5	DCS Events Greater than MSSC (reported per standard requirement, but there is no limit)	Number of DCS Events Greater than MSSC; Measure how much risk system imposes to for extreme/unusual contingencies; should we carry more reserves? How often these contingencies occur?	**12**	**3**	**3**	**2**	**2**	**2**	**1**	**RMWG Discussion was held**		**Approved**
ALR2-6	RC Directives – Reliability Coordination	Manual Dispatch of Resources for Contingency Control per standard IRO-001, 004, 005, 006	**9**	**1**	**2**	**2**	**2**	**2**	**1**	**Team 1 to provide response and post**		**Considered not advanced**
ALR2-7	Reliability Coordination Transmission Reconfiguration for Contingency Control	Transmission Reconfiguration for Contingency Control	**9**	**1**	**1**	**2**	**3**	**2**	**1**	**Team 1 to provide response and post to the web**		**Considered not advanced**
ALR2-8	Reliability Coordination Contingency Control (held for future consideration)	Contingency Control (not market redispatch/intervention) – # of hours over limits, how long flows get back to normal	**7**	**1**	**1**	**1**	**3**	**1**	**1**	**No action required** mitigation plans are being collected under ALR6-1.		**Considered not advanced**
ALR2-9	Min Gen Management (held for future consideration)	Min Gen alerts, including sudden wind generation coming on line	0						1	**RMWG Discussion was held**	**For future consideration**	
ALR3-1	Disturbance Containment	Number and conditions of extreme events or planning scenarios/cases, resulting in deployment of SPS due to the loss of the following (also defined in TPL standards):-Two or more elements cascading out of service, generation, load -System stability (voltage, transient, dynamic), generation, load (ref. EOP-004 Disturbance Reporting)	**7**	**1**	**1**	**1**	**2**	**2**	**2**	**RMWG Discussion was held**		**Considered not advanced**
ALR3-2	IROL (same as 3-5), can be deleted	Actual overload (pre and post contingency)	**7**	**1**	**2**	**1**	**2**	**1**	**2** (Team 1)	**RMWG Discussion was held -Combined with 3-5**		**Considered not advanced**
ALR3-3	IROL Flow Duration Curve (will need discussion)	flow duration curve to measure how close we are to the IROLs	**?**	**2**	**3**	**3**	**2**	**2**	**2** (Team 1)	**RMWG Discussion was held**		**Considered not advanced**
ALR3-4	IROL Standard Violations (has been combined in ALR3-5)	Number of times an IROL has been exceeded for greater than 30 min (ref. TOP-004, TOP-007, IRO-009)	**15**	**3**	**3**	**3**	**3**	**3**	**2**	**RMWG Discussion was held**		**Considered not advanced**

Fload Loss	Metric	Definition	Score	S	M	A	R	T	Team Assigned	Action	2010 Metrics	Status
ALR3-5	Operating Limit (OL) Excursion	Number of times an IROL has been exceeded for less than 30 min (ref. TOP-004), including basecase and under contingency, divide them into less than 10, 20, 30 mins categories	**14**	**2**	**3**	**3**	**3**	**3**	**2**	**Approved, In the process of data request, comments received from 8 entities**		**Approved**
ALR4-1	Automatic Transmission Outages Caused by Protection System	Percent correct trips = # of correct trips / total trips (which = correct trips + misops)	**14**	**3**	**2**	**3**	**3**	**3**	**2**	**Approved - No data, will discuss next steps in Minneapolis**		**Approved**
ALR5-1	Stability restoration (unstable conditions have occurred)	Average (or median) time to restore compliance with system ready for next credible contingency	9	2	1	2	2	2	3		**For Future consideration**	
ALR5-2	Cascading outage restoration	Average time to restore compliance with system ready for next credible contingency	11	2	1	2	3	3	3		**For Future consideration**	
ALR5-3	Uncontrolled separation restoration (BA restorations may have clearly identified completion	Average time to restore compliance with system ready for next credible contingency	12	2	2	2	3	3	3		**For Future consideration**	
ALR5-4	Widespread outage restoration (TADS may collect median time)	Average time to restore compliance with system ready for next credible contingency	12	2	2	2	3	3	3		**For Future consideration**	
ALR6-1	Transmission Constraint Mitigation	Number of mitigation plans used in planning and operating horizon, including SPS, RAS, operating procedures, deployment of Must-Run units, and load shedding (perhaps only count those in planning horizon per TPL standards) - Results require interpretation of true meaning of trends	**14**	**3**	**3**	**3**	**3**	**2**	**3**	**Approved**		**Approved**
ALR6-2	EEA 3	Number of times EEA 3 are issued - solutions may be different from the ones for ALR 6-3 - check EEA3 reports to see if event descriptions cover all detailed	**15**	**3**	**3**	**3**	**3**	**3**	**3** **(Team 1)**	**Approved**		**Approved**
ALR6-3	Energy Emergency Alert 2	Number of events BAs declared capacity and energy emergencies during annual peak load periods (consider system minutes of unserved load)	**15**	**3**	**3**	**3**	**3**	**3**	**3**	**Approved**		**Approved**

Fload Loss	Metric	Definition	Score	S	M	A	R	T	Team Assigned	Action	2010 Metrics	Status
ALR6-4	Demand Side management (DSM)	measure DSM performance to BA's instructions -Use operating data (DRDTF has LT data, no actual available) DRDTF recommendations – check into DSM classes	8	1	1	2	2	2	3	Considered not advanced		**Considered not advanced**
ALR6-5	Facility Redundancy? – Performance requirements? (held for future consideration) - probability-based performance requirments	Consider different degrees of reliability requirements, recognizing importance of critical corridors (n-x): element redundancy								Held for future consideration		**Follow up on Nov face to face meeting**
ALR6-11	ALR6-11 Automatic AC Transmission Outages Initiated by Failed Protection System Equipment	The normalized count provides an indication of the relative protection system equipment performance, specifically the AC Transmission Element outage rate for momentary and sustained outages initiated by Failed Protection System Equipment. Failed Protection System Equipment is one of the highest causes for initiating	**14**	**3**	**3**	**3**	**3**	**2**	**2**	**Discuss next steps in Minneapolis**		**Approved**
ALR6-12	**Automatic AC Circuit Outages Initiated by Human Error**	**The normalized count provides an indication of the relative human factor performance, specifically the AC Transmission Element outage rate for momentary and sustained outages initiated by Human Errors. Human Error is one of the highest causes for initiating automatic transmission system outages.**	**14**	**3**	**3**	**3**	**3**	**2**	**2**	**Discuss next steps in Minneapolis**		**Approved**
ALR6-13	**Automatic AC Circuit Outages Initiated by Failed AC Substation Equipment**	**The normalized count provides an indication of the relative substation equipment performance, specifically the AC Transmission Element outage rate for momentary and sustained outages initiated by AC substation equipment. AC substation equipment is one of the highest causes for initiating automatic transmission system outages.**	**14**	**3**	**3**	**3**	**3**	**2**	**2**	**Discuss next steps in Minneapolis**		**Approved**

Fload Loss	Metric	Definition	Score	S	M	A	R	T	Team Assigned	Action	2010 Metrics	Status
ALR6 -14	**Automatic AC Circuit Outages Initiated by Failed AC Circuit Equipment**	**The normalized count provides an indication of the relative transmission circuit equipment performance, specifically the AC Transmission Element outage rate for momentary and sustained**	**14**	**3**	**3**	**3**	**3**	**2**	**2**	**Discuss next steps in Minneapolis**		**Approved**
ALR6 -15	**Element Availability Percentage (APC)**	**The overall availability is the percentage of time the transmission system is available (i.e., in service) for the transmission of electricity. The relative percentage provides an indication of the overall availability of the transmission system operated at 200 kV and above, which indicates reliability performance.**	**13**	**3**	**3**	**3**	**3**	**2**	**2**	**Discuss next steps in Minneapolis**		**Approved**
ALR6-16	Transmissiion System Unavailability due to Automatic Outages	The unavailability is the percentage of time the entire transmission system is not available (i.e., out of service) for the transmission of electricity due to sustained automatic outages. The relative percentage provides an indication of the overall unavailability of the transmission system operated at 200 kV and above, which indicates reliability performance.	13	3	3	3	3	2	2	**Under Discussion**		**Not Approved**
ALR6-20	Frequency of Delivery Interruptions	The metric tracks the number and impact of scheduled and unscheduled events that result in the loss of supply voltage to a Delivery Point[1] for a duration of one minute or more, during a period of time.								**Initiated on 2010, discuss next steps. Proposed by Jeff Schaeller**		

Fload Loss	Metric	Definition	Score	S	M	A	R	T	Team Assigned	Action	2010 Metrics	Status
No ALR	Breaker Failures	The sum number of breaker failures over specified time periods	**Dismissed**							**Proposed by Entergy Services**		**Considered not advanced**
No ALR	Exposure to Cascading Event Reliability	Sum of the number of minutes above IROL limits for any and all IROLs that	**Dismissed**							**Proposed by Entergy Services**		**Considered not advanced**
No ALR	Magnitude of IROL Exceedance	Magnitude of peak loading less IROL rating in MWs for any and all IROLs	**Dismissed**							**Proposed by Entergy Services**		**Considered not advanced**
No ALR	Simultaneous TLRs	Determine the number of simultaneous TLRs at a particular hour of the day.	**Dismissed**							**Proposed by Entergy Services**		**Considered not advanced**
No ALR	Simultaneous EEAs	Determine the number of simultaneous EEAs.	**Dismissed**							**Proposed by Entergy Services**		**Considered not advanced**
No ALR	LMP Divergence	Determine maximum LMP divergence for each LMP clearing time for each	**Dismissed**							**Proposed by Entergy Services**		**Considered not advanced**
No ALR	Number of Negative Frequency Excursions	By Interconnection, determine the number (count) of negative frequency	**Dismissed**							**Proposed by Entergy Services**		**Considered not advanced**
No ALR	Restoration Metric									**Team 3**	**For Future consideration**	
No ALR	Reclosing Metric									**Team 3**	**For Future consideration**	
No ALR	Expected Reserve Margin	Excess of expected resources over expected peak demand expressed as a								**Team 3**	**For Future consideration**	
No ALR	Annual Loss Of Load Hours	Calculation result comes from a probability based computer simulation.								**Proposed by GTRPMTF**	**For Future consideration**	
No ALR	Annual Expected Unserved Energy	Calculation result comes from a probability based computer simulation.								**Proposed by GTRPMTF**	**For Future consideration**	
No ALR	Frequency of Control Performance (from Resource	Frequency bound, epsilon 1 (∈1) is based on historic measured frequency	Future							**Team 1/ for future discussion**	**For Future consideration**	
No ALR	Number of Negative Frequency Excursions	By Interconnection, determine the number (count) of negative frequency	Future							**Team 1/ for future discussion**	**For Future consideration**	
No ALR	Integral of Negative Frequency Excursions	By Interconnection, determine the integral of the negative frequency excursions beyond FTL in hour ending 4 pm CPT / 5 pm EPT for EI and	Future							**Team 1/ for future discussion**	**For Future consideration**	
										Future	**13**	
										Dismissed		**40**
										Approved		
										NET		**53**