**Operations and Planning Synchronization Task Force**

**Charter**

**Scope**

The Operations and Planning Synchronization Task Force (TF) of the Reliability and Operations Subcommittee (ROS) will strive to ensure alignment and propose enhancements to the planning and operations processes as described within this document.

The TF will consider the List of Issues individually in the recommended order of listing. However, multiple issues may be combined, as appropriate. For each issue, the TF will:

* Ensure that Real-Time Operations, Outage Planning and Transmission Planning processes are aligned. The processes are not expected to be “equal”, but the system should be planned more conservative than expected Real-Time Operations requirements. This should ensure operational flexibility.
* Identify appropriate revision request(s) to change the current criteria and processes located within the ERCOT Protocols, Planning Guide and Operating Guides for Real-Time Operations, Outage Planning and Transmission Planning unless there is consensus of the TF that no changes associated with a particular issue are warranted or that the change should be implemented solely through a change in ERCOT procedures. The proposed revisions should be structured in such a way as to allow changes associated with each issue to be considered separately through the appropriate approval process. Language or concepts developed in PGRR011 should also be taken into consideration in development of the proposed revision requests.
* Ensure consistency with current and reasonably anticipated NERC requirements addressing specific issues listed below.
* Assess and characterize or give specific examples of the potential benefits (e.g. improved system reliability, economic savings, reduced risk of forced customer outages, etc.) associated with the proposed changes.
* Assess and characterize or give specific examples of the impact (e.g. human resource costs, system upgrade costs, capital investment increases, etc.) associated with the proposed changes.
* Provide monthly updates to the ROS. Changes to the order in which issues are addressed may be proposed to the ROS thru such monthly updates.

**Participation**

Participation is encouraged from ERCOT stakeholders (i.e., Transmission and/or Distribution Service Providers, Qualified Scheduling Entities, Resource Entities, etc.), PUC Staff and ERCOT Staff.

**Chair and Vice-Chair**

The Chair and Vice-Chair positions shall be approved by the ROS.

**Meetings**

The TF shall meet as often as necessary to perform the designated assignment. Meetings shall be called by the Chair and/or Vice-Chair. Meeting notices shall be posted to the ERCOT website at least one week prior to the meeting.

**List of Issues:**

1. Consider use of an Operations feedback loop (e.g. monthly report to the ROS) to identify and address credible scenarios for further study.
   1. Transmission elements associated with an ERCOT Transmission Watch.
   2. Transmission elements that are chronically denied Maintenance Outages.
   3. Congestion analysis for constraints that are consistently causing security violations similar to the concepts in NPRR393.
   4. Real-time developed mitigation plans requiring load-shed for a credible single contingency, including duration of event and amount of planned load shed.
2. Ensure that Real-Time Operations, Outage Planning and Transmission Planning processes are aligned in the use of operating generic transmission limits similar to the concepts in PGR011.
3. Consider clarifications and improvements to the Five Year Transmission Plan process.
   1. Consistent publication date for Five Year Transmission Plan.
   2. Consideration of incomplete Five Year Transmission Plan reliability projects in seasonal RAP/MP/SPS development.
   3. Exempt RPG review of Five Year Transmission Plan reliability projects that have an estimated cost less than $50M.
   4. Define and implement an urgent RPG review process for all Five Year Transmission Plan reliability projects that have a need date of less than 36 months.
   5. Ensuring projects in the Five Year Transmission Plan are completed in a timely manner. This includes unforeseen consideration of load variability, transmission outages and construction complexities that may require earlier completion.
   6. Consider LTSA results in determination of Five Year Transmission Plan projects.
4. Appropriate ratings
   1. Ensure Load and Ratings assumption consistency.
   2. Should SCED be limited by 2-hour ratings or make use of 15-minute ratings?
   3. Should planning studies be more conservative by using the planning normal rating (Rate A) for a select set of contingencies?
   4. Use of dynamic ratings in planning studies.
5. Appropriate load levels to consider in planning studies
   1. Ensure that area load forecasts in the planning base cases are aligned with actual area peak loads.
   2. Establish a basis for load variations, including area seasonal variations.
   3. Review the planning process relative to validating load forecasting inputs of discrete load additions and determine whether process improvements need to be made.
6. Use of double circuit contingencies to develop operating limits – ERCOT Operations conservatively considers all double circuit contingencies. Evaluate appropriate use of double circuit contingencies.
7. Long-term unavailability of autotransformers
   1. N-1-1 for autotransformers as a credible contingency for which load interruption is not allowed.
   2. Use of defined spare equipment strategy as mitigation for N-1-1 scenario.
   3. Use of defined distribution feeder switching or distribution transformer loading strategy as mitigation for N-1-1 scenario.
8. Generator unit unavailability and modeling issues
   1. Combined cycle trains as a credible single contingency for which load interruption is not allowed.
   2. Use of “typical” or “historical” Planned, Maintenance and Forced Outages and/or derates in an area.
   3. Use of extreme generator unit unavailability in an area and/or ERCOT-wide.
   4. Unavailability of intermittent resources in an area.
   5. Ensure alignment of anticipated maximum output from RARF submittals, operational tests and Pmax used in the planning base cases.
9. Consideration of transmission maintenance outages in planning studies.
   1. Use of “typical” or “historical” Planned, Maintenance and Forced Outages in an area.
   2. Use of construction related outages in determination and timing of planning solutions.
10. Security-constrained deliverability of ancillary services – determine a methodology to account for ancillary service requirements in the generation dispatch or load response in planning and operating studies.
11. Simultaneous feasibility of generation dispatch solutions – ensure planning studies adequately anticipate operational constraints.
12. Planning Cases and Scenarios.
    1. Develop future year seasonal cases in DSB.
    2. Consider modifying DSB structure from years 1, 2, 3, 4 and 5 to years 1, 2, 3, 5 and 7.
    3. Model voltage regulation at actual reference point (typically the generator bus).
    4. Accurate reactive modeling of generation (mainly wind) resources – use reactive capability curve instead of maximum values.
13. RMR Studies.
    1. Consider generator unit unavailability in RMR studies.
    2. Consider expanding RMR studies for future year generator unit unavailability.
14. Aged Infrastructure, maintenance, and storm hardening considerations - There are situations where aged facilities need to be maintained (such as a circuit rebuild) due to maintenance or storm hardening considerations, or there might be other facilities (such as 138/69 kV autotransformers) that are nearing the end of their life.  In some cases, the TSP may consider whether to upgrade the facilities in-kind or, for an incremental cost, upgrade and replace to ensure future needs are met without the need for a second project.  For example, if a circuit is rebuilt for maintenance, it would be highly undesirable for the TSP to rebuild the new circuit a second time because the load has grown to the point that the circuit needs to be upgraded. Consider modification to RPG procedure to allow certain upgrade projects to be considered as “neutral”.