



## **Resource Adequacy Analysis Subcommittee (RAAS) – TEAM CHARTER**

### **MISSION**

As assigned by the Planning Committee (PC), review the modeling and analysis techniques used in the various PJM Resource Adequacy studies that examine the RTO region and Locational Deliverability Areas (LDAs). These studies include the annual Reserve Requirement Study (RRS) and Capacity Emergency Transfer Objective (CETO) studies. Produce a study assumptions letter for the RRS and review the results and assessment report of the RRS to forward to the Planning Committee according to the approved timetable. As directed by the PC, review the modeling and analysis techniques used in CETO studies, determinations of reliability requirements, and other LOLE analyses performed to support the Reliability Pricing Model (RPM) and the Regional Transmission Expansion Planning (RTEP) process. Make recommendations as necessary on modeling practices and study techniques.

### **RESPONSIBILITIES**

1. Produce and review assumptions letter for annual Reserve Requirement Study.
  - a) Review study modeling techniques
  - b) Provide feedback on sensitivities performed
  - c) Discuss action items and identify priorities
  - d) Provide feedback on documentation. (Ex. Manual M-20: PJM Resource Adequacy Analysis)
  
2. Provide support for submitting capacity model review.
  - a) Provide liaison efforts to communicate capacity model review requirements by identified due date
  - b) Review capacity model via PJM's web based application and instructions.  
(<https://esuite.pjm.com/Rstudy/>)
  
3. Review assessment report of study efforts.
  - a) Review report and provide feedback
  - b) Reach consensus on major points of study assessment
  - c) Provide liaison efforts to effectively communicate study assessment report to member company's staff.
  - d) Provide feedback on study presentation material
  
4. Review the modeling techniques and assumptions used in CETO studies, determinations of reliability requirements and other LOLE analyses for RPM and RTEP.
  - a) Review study modeling techniques
  - b) Discuss action items and identify priorities
  - c) Provide feedback on documentation. (Ex. Manual M-20: PJM Resource Adequacy Analysis)
  
5. Review the modeling techniques and assumptions necessary to be in full compliance with ReliabilityFirst (RFC) Standard BAL-502-RFC-02 titled "Planning Resource Adequacy Analysis, Assessment and Documentation".



## **ADMINISTRATIVE**

6. The Subcommittee reports to the Planning Committee.
7. Planning Committee members can appoint representatives to be part of the Subcommittee.
8. Subcommittee members are not required to sign a confidentiality agreement or a non-disclosure agreement (NDA) as only aggregated information is discussed and presented by the PJM staff.
9. A staff member of PJM's Resource Adequacy Planning Department will Chair the Subcommittee.
10. PJM staff will be responsible for preparing and issuing all reports, facilitating the Subcommittee, developing data models, managing study data, performing computer analysis and assessments, and recording and preparing meeting notes of each meeting.

## **CORE COMPETENCIES**

The members should be involved with the Planning for the Bulk Electric System (BES) Power grid, with knowledge of how to assess Resource Adequacy associated with probabilistic criteria of planning for occurrence of load exceeding the available generating capacity. RAAS members should be familiar with RFC Standard BAL-502-RFC-02 titled "Planning Resource Adequacy Analysis, Assessment and Documentation" and PJM's compliance activities with regard to this Standard. This skill level is typically associated with senior engineering staff or management with an electrical engineering background or interest. This is a technical group, tasked with reviewing the details of the correct application of statistics, probability theory and associated modeling techniques.

Collectively, the Resource Adequacy Analysis Subcommittee members should have knowledge of:

1. Probability Theory as applied in power system analysis.
2. Modeling and analysis methods used in Resource Adequacy evaluations.
3. RFC Standard BAL-502-RFC-02 titled "Planning Resource Adequacy Analysis, Assessment and Documentation"
4. The basic principles of macro and regional economics
5. The interaction between load and weather
6. Demand Response / Load Management programs and their reliability impacts
7. PJM Emergency Procedures
8. Load forecasting
9. Provisions of the PJM Reliability Assurance Agreement (RAA)
10. Generation performance modeling techniques
11. Generation performance statistics
12. Bulk electric system transmission modeling and analysis
13. Capacity Emergency Transfer Objective (CETO) modeling and methods.
14. Capacity Emergency Transfer Limitation (CETL) modeling and methods.

Carrying out the Resource Adequacy Analysis Subcommittee mission will require each member to have the following skills:

1. Interpersonal skills to conduct oneself professionally in the designated role of the Subcommittee.
2. Assessment skills to review correct application of statistics, probability theory, and review of the study results for the correct level of Adequacy.



3. Decision making skills to formulate and make judgments concerning ideas related to study assumptions and study results.
4. Team working skills to facilitate the objectives of the Subcommittee and its members.
5. Communication skills to provide feedback in a respectful manner
6. Technical leadership skills in communicating the results of Subcommittee activities.

Each member should have the authority to commit resources to support the requirements of the Planning Committee.