**PLWG Report to ROS on Load Scaling Techniques**

In June 2014, the Reliability and Operations Subcommittee assigned PLWG the task of reviewing various load scaling methodologies available to transmission planners and evaluating their appropriateness. This outline is intended to assist in drafting a report to fulfill that assignment. This outline and the discussions needed to complete a full report are not intended to replace the discussions that are necessary to move PGRR042 forward.

1. Drivers of the necessity of load scaling
   1. Evaluate impact of varying load assumptions
      1. Changes in rate of load growth over time
      2. Evaluation of large load additions
         1. Integration of existing loads outside of ERCOT (LP&L for example)
         2. New loads resulting from economic activity (pipeline, factory, …)
      3. Meet NERC requirements for studying sensitivities
   2. Evaluate impact of varying generation assumptions
      1. Adjusting for extraordinary dispatch assumptions
      2. Changes in dispatch
      3. Addition of new generation
   3. Achieve a load/generation balance resulting from non-coincident peak load representation in power flow cases (SSWG models)
2. Identifying an appropriate study area
   1. Definitions
      1. Radial Systems
      2. Integrated Systems
         1. limited area non-radial
         2. ERCOT wide
      3. Transmission Interface
   2. Criteria for evaluating appropriateness.
      1. Establishing an appropriate stressed condition
      2. Use of historical data
3. Methods for performing load scaling.
   1. Load to Generation – single area
   2. Load to Generation – multiple area
   3. Load to Load – multiple area
4. Assessing appropriateness of the base case resulting from load scaling for studying
   1. Radial Systems
   2. Integrated Systems – within a limited area of study
   3. Integrated Systems – ERCOT wide
   4. Transmission Interfaces
5. Summary