OPSTF Report to ROS

July 12, 2012

Issue #5: Appropriate load levels to consider in planning studies

The OPSTF has met five times and has discussed Issue #5 at each meeting. There is strong support for increasing the load levels being modeled in the SSWG base cases. The proposal for the increase is largely due to a concern that in recent years SSWG load levels have fallen off relative to the ERCOT forecast as reflected in the CDR.

EXAMPLE:

2009\* 10.2%\*\*(2011\*\*\*) 9.9%(2012) 9.0%(2013)

2010 3.1%(2013) 3.6%(2014) 3.6%(2015)

\*Calendar year in which SSWG Base Cases were created.

\*\*Percentage that load in the SSWG case was higher than the ERCOT CDR.

\*\*\*SSWG Base Case year being modeled.

This shows that for SSWG base cases built in 2009, the SSWG load was 10.2% higher than the ERCOT CDR in the 2011 base case, 9.9% higher in 2012, and 9.0% higher for the 2013 base case.

However, when SSWG cases were built in 2010, the SSWG load was only 3.1% higher in 2013, 3.6% higher in 2014, and 3.6% higher in 2015.

The data shows that the transmission system being operated now was planned several years ago using a load assumption that was in excess of what was expected and even what has been experienced. However, after 2009 the load level in the SSWG cases significantly dropped such that the transmission system being planned for 2013 and later does not have the reliability margin built in that previously existed. Because planning studies cannot take into account all operational realities, such as construction delays, extreme weather events, unexpected load growth, long-term equipment outages, etc. this drop in planning load levels could lead to a gap between operations and planning. Hence, many attending the OPSTF meetings believe the Planning Guides should be changed regarding proposed Section 6.1 “Steady State Model Development” (PGRR017) to read as follows: 6.1(3)(a) Each TSP, or its Designated Agent shall provide its respective transmission network steady-state model data, including load data. The load data shall correspond to the 90th percentile weather forecast for each TSP area.

Also: 6.1(4) (new) ERCOT shall develop and post on the Market Information System (MIS) Public Area a Weather Zone peak load forecast for the next six years that corresponds to the 90th percentile weather forecast for each Weather Zone by December 31 each year.

EXPECTED BENEFITS:

1. It better aligns the ERCOT SSWG base case load levels with levels used in past years.

2. Over time it will produce a more reliable transmission grid.

3. It will tend to offset construction delays, extreme weather events, unexpected load growth, long-term equipment outages, etc.

4. It provides a load-level target that is more consistent throughout the ERCOT Region.

5. It should be easier to obtain planned outages to maintain the transmission system.

6. It should reduce congestion.

POTENTIAL IMPACTS:

1. Transmission Cost of Service (TCOS) charges may increase compared to 2010 and 2011 planning years.

2. TCOS charges may decrease compared to 2009 and prior planning years since 90th percentile load levels are lower than those used previously.

3. For TSPs using a 50th percentile forecast, it may result in the construction of transmission lines or other improvements years before they are actually needed to meet NERC Reliability Standards.

4. The change will increase the workload for those TSPs choosing to study both the 50th percentile and the 90th percentile load levels.

5. It introduces what many will see as an inconsistency since transmission plans will be based on a 90th percentile load forecast while the need for more generation/resource capacity will be based on a 50th percentile forecast. (Others point out that the generation reserve margin target takes forecast error into account.)

6. Property owners will be impacted by the need to provide more easements and substation sites compared to 2010 and 2011 planning years.

7. It introduces inconsistency with the analysis of economic projects because the ERCOT CDR load forecast (50th percentile load forecast) is used.

8. Creates considerable extra work for TSPs by causing them to develop substation and system load forecasts that are different from their internal official load forecasts.

9. There is not sufficient generation in the CDR to serve the 90th percentile load in the base cases plus ancillary services. This will require adding generation without commitment to build to the base cases to create solved base cases.

RECOMMENDATION:

ROS should take one of the following actions:

1. Refer the proposal to the PLWG to develop a Revision Request to change the Planning Guides.
2. Direct the OPSTF to perform a detailed impact analysis and return results.
3. Table the Proposal.