**Phase II Schedule, Processes and Analysis Details**

**DOE Project DE-OE0000343**

**Introduction**

The project was initially structured with two phases of work. During Phase I, the EIPC established a process for aggregating the modeling and regional transmission expansion plans of the entire Eastern Interconnection and performed interregional analyses to identify potential conflicts and opportunities between regions. In addition, macroeconomic analyses of possible capacity expansion futures were completed to assist stakeholders in the choice of three scenarios to be analyzed in Phase II. During Phase II, more detailed transmission analyses on the three scenarios will be performed. This work will include development of a transmission topology that supports the resources defined for each scenario, reliability testing of that transmission topology, production cost analyses with the assumed resources and transmission system in place, and development of cost estimates for the resource and transmission expansions.

Phase II includes the following tasks:

1. **Interregional Transmission Options Development**

This task will focus on transmission reinforcements to support the interregional energy exchanges for each of the Expansion Scenario(s) from Task 6. The Baseline Infrastructure transmission model used in Phase I will be updated as needed to reflect changes in forecast projects since the development of that case. [Note: there have been some projects, such as HTP, that now meet inclusion thresholds.] The EIPC will develop transmission expansion options focused on the EHV transmission network (230 kV and above), and will also consider operating options and other potential solutions. This analysis will consider the transmission facilities required to integrate new resources within a region using a similar high voltage focus, but will not attempt to resolve potential local (below 230 kV) transmission issues. [Note: By necessity 230kV and above issues will need to be resolved if resources are to be reliably integrated.] EIPC will leverage the expertise of its membership in considering high voltage direct current (HVDC) and advanced technologies in developing expansion options. This task will not identify specific routing, siting, environmental, or other related issues associated with any potential enhancements to the grid.

1. **Reliability Review**

This task will perform reliability analyses consistent with NERC reliability criteria for transmission planning to assess, in aggregate, for the Eastern Interconnection the interregional transmission options developed in Task 7. [Note: Will need to address the issue of separating NYISO zones J and K in modeling to ensure and accurate reliability analysis.] Key inputs for Task 8 include the Eastern Interconnection models from Task 7.

1. **Production Cost Analysis of Each Scenario**

Economic analysis will be performed using production cost modeling for each scenario based upon the power flow modeling and transmission expansion options developed in Task 7. Key inputs for Task 9 include the Eastern Interconnection models from Task 7 and flowgates identified during Task 8 analysis.

1. **Generation and Transmission Cost Development**

During Task 10, high-level estimates of the capital costs of the interregional generation resource and transmission expansion options will be developed. Key inputs for Task 10 include the Interregional Expansion Options (generation and transmission) from Tasks 6 and 7, and high-level, generic cost information such as dollar per mile estimates for transmission lines rather than detailed cost estimates based on specific route selection and engineering designs. [Note: The generic per unit costs should be reviewed before they are used in the Task.]

1. **Review of Results**

The EIPC will develop a draft Phase II report and provide it for Stakeholder Steering Committee review. This will be in addition to the stakeholder review of results from each individual task.

1. **Phase II Report**

The EIPC will review the input received from stakeholders and address comments in the final Phase II report. The Task 11 and Task 12 process is envisioned to be conducted in much the same manner as the development of the Phase I Report.

**Details on Phase II Schedule and Processes**

Attached are documents that provide supporting detail on the schedule and processes to be used during Phase II of the project. Each document is included as a separate Appendix.

Appendix A – Phase II Build Out Schedule and Outline 7-18-11

Appendix B – Phase II Detailed Schedule 9-28-11

Appendix C – EIPC/SSC Transmission Options Task Force (TOTF) Scope 10-19-11

Appendix D – Method to Select Coal Unit Deactivations 10-19-11

Appendix E – Definition of Less-Than-Peak Case (LTP) 10-19-11

Appendix F – Reliability Tests Utilized in Phase II, Tasks 7 and 8 10-19-11

Appendix G – Phase II HVDC Consideration Process 10-19-11