

## Implementation Plan

### **Seams Steering Group – Western Interconnection Planning Work Group (PWG)**

Implementation of a West wide Expansion Planning Effort

#### **Purpose**

The goal of the SSG-WI Planning Working Group is to establish a proactive planning mechanism that will facilitate seamless grid planning across the Western Interconnection as if there were a single RTO instead of three. It is intended that this planning mechanism will be functional prior to the time that the three western RTOs are operational. To facilitate the rapid and unimpeded development of the western RTOs, the planning mechanism developed by SSG-WI must be easily and efficiently assimilated into each respective RTO.

#### **Scope**

The west wide expansion planning function will deal with congestion issues that impact the marketing of energy between RTOs or regions. This includes the study of congested paths within a region that have an impact on the ability to market between regions. The study of transmission congestion within an RTO that does not impact marketing into other regions will remain the responsibility of the individual RTOs. The west wide expansion planning process, when linked to intra-RTO planning, will provide for a seamless transmission planning process throughout the interconnection.

#### **Functions**

Planning functions of the SSG-WI transmission planning effort are outlined in the Scope of Work adopted by the SSG-WI Steering Group, attached as Enclosure 1.

#### **Implementation – Initial Work Tasks (First Year Tasks)**

The following work tasks are proposed to be initiated during the first year: (See Enclosure 3 for task flow chart)

Task 1. – Identify Congested Paths and Load and Generation scenarios and perform studies for 2008 time frame.

Step 1 – Examine historical path congestion on the major paths in the western interconnection.

Step 2 – Develop load, generation and transmission assumptions for a 5-year study case (2008 system)

Step 3 – Run 2008 Studies using the model determined from Task 2, Step 1.

Step 4 - Run selected 2008 studies using the new London Economics Process (CaISO model) - after model review by the PWG

Step 5 – Prepare a report on the results of the 2008 Studies

Task 2. – Review tools available or under development to evaluate the benefits of transmission projects to expand access to electricity markets and resources.

Step 1 – Review existing Transmission Oriented Production Simulation (TOPS) tools and determine which model to use in Task 1, Step 3

Step 2 – Review and evaluate the new London Economics Process (CaISO model)

Task 3. – Identify and evaluate future options for addressing uneconomic congestion and improving market efficiency (10+ year time frame)

Step 1 – Determine scenarios to evaluate in the 10+ year time frame

Step 2 – Run 10+ year studies. Model(s) used will be determined from the experience gained in running the 2008 studies.

Step 3 – Prepare a report on the results of the 10+ year studies.

Task 4. – Address the recommended “Next Steps” identified in the August 2001 WGA report, “Conceptual Plans for Electricity Transmission in the West” which are applicable to the Scope of the PWG.

The “Next Steps” identified in the WGA report (summarized from page 52-53 of the WGA report) are the following:

- evaluate load growth scenarios that reflect implementation of end use options.
- evaluate impacts of natural gas prices on electricity prices and load growth
- perform an incremental transmission addition study to quantify transmission levels and costs
- include DC transmission options in future expansion scenarios
- evaluate the impact of generation in load areas and additional transmission on market power mitigation and operational flexibility
- evaluate additional generation scenarios including wind and peaking resources

It is planned to work with CREPC through its Planning WG representatives and address the above Next Steps in conjunction with the scenarios and studies in Tasks 1 and 3.

**Task 5. - Develop strategic development options**

Identify strategic, high level options for future development of the transmission system in the west (Strategic Plan or Vision).

Step 1 – Scope out a Work Plan. One of the initial objectives of the Work Plan will be to provide input into the identification of solution options to be studied in Task 3.

Step 2 – Additional work is contemplated as part of Task 5 that will be identified as part of the Task 5 Work Plan.

**Implementation Schedule**

Enclosure 2 is a summary of the estimated start and completion dates for the identified Tasks that will be initiated the first year, including comments on workload.

**Coordination with WECC**

It is recognized that the planning of facilities that address the seams issues will impact the reliability of the western interconnected system. Consequently, these SSG-WI planning activities will be coordinated with the WECC.

## SSG-WI Scope of Work for SSG-WI Planning WG

The following Scope of Work was developed by the SSG-WI as guidance for the SSG-WI Planning Work Group (PWG) in establishing a collaborative west wide transmission expansion planning function for the West.

*Goal :To provide a forum to further the development of a robust, West-wide interstate transmission system that is capable of supporting a competitive and seamless West-wide wholesale electricity market.*

In furtherance of that goal, the PWG should, in its efforts, distinguish between transmission projects that are needed primarily to achieve certain economic benefits (economically-driven expansion projects) and those that are necessary to satisfy established reliability criteria (reliability-driven expansion projects). The efforts of the PWG will primarily focus on the evaluation and, if appropriate, support of economically-driven expansion projects that support creation of a seamless West-wide market.

The SSG-WI Planning Work Group is tasked to implement a collaborative west wide expansion planning effort for the Western Interconnection. The planning effort should be proactive and fulfill the following functions:

1. identify transmission congestion that is an impediment to the efficient operation of the western market
2. develop through a collaborative process, strategic transmission development options and specific alternative plans for eliminating congestion and provide information on these alternatives to the marketplace.
3. review and evaluate sponsor's analysis of proposed projects (transmission and non-transmission) having interconnection wide commercial impacts
4. perform planning studies as necessary at a high level, including cost and benefit assessment
5. encourage development of economic projects developed through this planning effort or by sponsors, by working jointly and closely with the states and potential project sponsors
6. develop guidelines for reviewing viable non-transmission alternatives.
7. provide technical support to appropriate regulatory agencies by identifying congested paths and the costs and benefits of eliminating the congestion
8. assist the appropriate regulatory agencies by providing technical transmission planning support to such agencies in their development of western energy policy.
9. issue a biennial report, assessing current trends, future transmission needs and other identified alternatives, to facilitate development of an efficient seamless western market

A new staffed planning organization will not be created; rather the function will be supported by individuals dedicated to this work from existing Transmission Owner organizations in the pre-RTO time frame and from the RTO organizations after the RTOs are formed.

The effort will not have project approval authority. The effort will not address planning issues whose impact is limited to within an RTO boundary.

The west wide expansion planning function should be consistent with the proposed planning functions and responsibilities of the individual RTOs.

The effort should be initiated as soon as practical and prior to RTO formation

Membership should be open.

This SSG-WI expansion planning effort and the WECC reliability effort should be complementary and closely coordinated to avoid duplication.

Recommendations from the planning group will be brought to the SSG-WI.

In addition to developing the above expansion planning function, the PWG should identify and recommend solutions to planning seams issues associated with RTO formation.

Adopted by SSG-WI – May 15, 2002

### Planning Tasks - Implementation Schedule

<b>Task</b>	<b>Description</b>	<b>Date Initiated</b>	<b>Completion Date</b>	<b>Comments</b>
<b>Task 1 – 2008 Studies</b>				
Step 1	Examine Path Congestion	July 2002	August 2002	3 man weeks of work
Step 2	Develop load, generation and transmission assumptions for 2008 case	June 2002	August 2002	
Step 3	Run 2008 Studies using model determined from Task 2 and the assumptions from Task 1, Step 2.	September 2002	December 2002	May require significant Workload effort by the entity owning rights to selected modeling program
Step 4	Run selected 2008 studies using new London Economics Process model	January 2003	February 2003	May require significant Workload effort by CaISO or work may be contracted out.
Step 5	Prepare Report on 2008 Studies		March 2003	
<b>Task 2 – Model Review and Evaluation</b>				
Step 1	Determine model to use in Task 1, Step 3	June 2002	August 2002	
Step 2	PWG evaluate London Economics Process model	September 2002	December 2002	

<b>Task 3 – 2013 Studies</b>				
Step 1	Determine scenarios to study in 2013 case	June 2002	September 2002	
Step 2	Run 2013 cases for different scenarios	February 2003	May 2003	May require significant Workload effort by entity owning rights to selected modeling program
Step 3	Prepare Report on 2013 Studies		June 2003	
<b>Task 4</b>	Follow-up on WGA Report	June 2002	May 2003	Tasks are included as parts of Tasks 1, 3 and 5
<b>Task 5 – Strategic Vision</b>				
Step 1	Scope out Work Plan Provide transmission input to Task 3	June 2002	August 2002	
Step 2	TBD from Work Plan	TBD	TBD	

## SSG-WI Transmission Planning Implementation Plan

