

Southwest Power Pool
ECONOMIC STUDIES WORKING GROUP
June 27, 2013
Web Conference

• SUMMARY OF ACTIONS TAKEN •

1. ESWG members approved the 2013 ITP20 Plan and the 2013 ITP20 Report.
2. ESWG members approved the High Priority Incremental Load Study Scope.
3. ESWG and TWG will have a joint web conference on July 3rd, 2013 to discuss the 2015 ITP10 Scope.

**Southwest Power Pool
ECONOMIC STUDIES WORKING GROUP**

**June 27, 2013
Web Conference**

• MINUTES •

Agenda Item 1 – Administrative Items

Agenda Item 1a - Call to Order, Introductions

Chair Alan Myers (ITC Great Plains, LLC) called the meeting of the Economic Studies Working Group (ESWG) to order at 9:01 a.m., welcomed those in attendance, and asked for introductions (Attachment 1 – Attendance List).

There were 39 web conference participants representing 10 of 11 members.

Agenda Item 1b – Receipt of Proxies

Juliano Freitas (SPP staff) requested proxy statements. No proxies were identified.

Agenda Item 1c – Review of Agenda

Chair Alan Myers (ITC Great Plains, LLC) presented the agenda for review and asked for any additions or corrections (Attachment 2 – Agenda). The group decided to change the presentation order. The new order was the High Priority Incremental Load Study, 2013 ITP20 Report and 2015 ITP10 Scope. Also, the first item in the agenda became an approval item.

A motion to approve the agenda was made by Mike Swearingen (Tri-County Electric Cooperative) and seconded by Kip Fox (AEP). The motion was approved unanimously.

Agenda Item 2 – High Priority Incremental Load Study update

Al Tamimi (Sunflower Electric Power Company) presented and requested the High Priority Incremental Load Study scope approval. Al explained the objectives and assumptions proposed by the task force, all the results will feed into 2015 ITPNT and 2015 ITP10. The main assumptions presented are:

- The reliability models will include current topology and projects with approved NTC's
- No Tres Amigas DC project and no Clean Line Energy projects will be considered in the study
- No sensitivity analysis
- 2015S ITPNT Scenario 0 is source for 2015 reliability models
- RCAR source for 2018 and 2023 models for both reliability and economic assessments
- The reliability analysis will consist in an AC model, N-1 contingency analysis and will take in consideration 60 kV and above solutions to the problems identified
- The load assumptions to be used in each scenario for reliability assessment are: 2015 Summer Peak (50/50),(90/10); 2018 Summer Peak (50/50), (90/10); 2023 Summer Peak (50/50), (90/10)
- The economic assessment will be based on RCAR constraints, 8760 SCUC/SCED and will take in consideration 100 kV and above solutions to the problems identified
- The load assumptions to be used in each scenario for economic assessment are: 2018 Summer Peak (50/50), (90/10); 2023 Summer Peak (50/50), (90/10)
- The local Load Serving Entity (LSE) will need to plan for resources to serve the projected load and will be responsible for resource expansion assumptions
- The metrics proposed to be used in the study are: APC savings, value of replacing previously approved projects, reduced losses, reduced capacity costs, assumed benefit of mandated reliability projects and mitigation of transmission outage costs.

The study will begin in June 2013 with interim results in September 2013; the final report with recommended solutions will be submitted for MOPC/BOD approval in April 2014. (Attachment 3 – High Priority Incremental Load Study update)

A motion to approve the proposed High Priority Incremental Load Study scope was made by Kip Fox (AEP) and seconded by Mike Swearingen (Tri-County Electric Cooperative). The motion was approved unanimously.

Agenda Item 3 – 2013 ITP20 Report

Juliano Freitas (SPP staff) reviewed the main milestones achieved during the 2013 ITP20 Study and asked the ESWG members to endorse the 2013 ITP20 Report and the 2013 ITP20 Plan, these items will be taken to the MOPC and BOD for approval in July 2013. Staff got some comments from members and attendance during the meeting and will incorporate these comments in the final report as well as comments from the TWG conference call on 06/26. (Attachment 4 – 2013 ITP20 Report)

A motion “ESWG/TWG recommends the MOPC to endorse and the BOD to approve the 2013 ITP20 Report as documentation of completion of the 20-Year Assessment of the ITP planning process specified in SPP OATT Attachment O Section III. ESWG/TWG further recommends the MOPC endorse the 2013 ITP20 plan as outlined in the 2013 ITP20 report” was made by Kip Fox (AEP) and seconded by Kurt Stradley (LES). The motion was approved by eight members and rejected by two members. Randy Collier (City Utilities of Springfield) and Greg Sweet (EMDE) decided to vote No on the motion with the following explanation:

- **Randy Collier: “City Utilities of Springfield is voting no for approval of the 2013 ITP20 Report. City Utilities’ zone has experienced negative benefit/cost ratios for projects previously selected in the SPP planning processes. The projects selected for the ITP20 resulted in a benefit/cost ratio of -4.01 (negative) for City Utilities, which is the lowest for the SPP region (see attached table 16.5 from the ITP20 document). City Utilities is very concerned that the planning processes continue to produce negative benefit/cost ratios for our zone. Preliminary RCAR report results also confirm City Utilities’ concern and demonstrate the need for SPP to resolve this inequity issue.”**
- **Greg Sweet: “Empire District generally supports the 2013 ITP20 Report, but cannot at this time endorse the recommended Plan/set of projects because of insufficient analysis of potentially more cost effective and beneficial seams projects in the eastern portion of the SPP and Missouri.**

Agenda Item 4 – 2015 ITP10 Scope

Kelsey Allen (SPP Staff) presented the 2015 ITP10 Scope. The portion presented by Kelsey addressed the futures, data input and assumptions. All the assumptions presented during the web conference were suggested by the ESWG during the meeting on June 6th, 2013 in Denver. The three main topics discussed were the futures, load forecast and topology. The suggested 2015 ITP10 Scope considers three futures: Business as Usual, Decreased Base Load Capacity and Increased Input Prices. In the previous meeting the ESWG members proposed to have the same load forecast in all futures and also to include the high priority incremental load (50/50 forecast) in the base as well as the approved NTC’s coming out the High Priority Incremental Load Study Task Force (HPILSTF). Some stakeholders proposed to include the 90/10 forecast instead of the 50/50. Another important discussion regarding the system topology occurred, the main issue was to include the Tres Amigas DC tie and the Clean Line Plains & Eastern in the base case as well as how SPP Staff should model the flow across these lines. After an extensive round of discussion the ESWG members did not reach a conclusion to approve the portion of the 2015 ITP10. Nathan McNeil (Midwest Energy) made a comment concerned about approving the futures without approving the weighting/consolidation methodology. Bennie Weeks (Excel Energy) suggested SPP Staff to change the BAU language to not include the renewable goals in this future, only renewable mandates. Because the ESWG members could not approve the proposed portion of the 2015 ITP10 Scope, Kip Fox (AEP) suggested having another web conference to talk about the 2015 ITP10 Scope. Jody Holland (SPP Staff) proposed to have a joint web conference involving TWG and ESWG on July 3rd, 2013 to keep the discussion to potentially have an agreement regarding the 2015



ITP10 Scope's approval. Antoine Lucas (SPP Staff) explained to the group the potential impact on the 2015 ITP10 Study in case the MOPC/BOD do not approve this portion of the scope in July 2013. (Attachment 5 – 2015 ITP10 Scope)

Closing Items

Chair Alan Myers (ITC Great Plains, LLC) requested if any other items merited discussion. The meeting was adjourned at 11:02 a.m.

Respectfully Submitted,

Juliano Freitas,

Secretary



ECONOMIC STUDIES WORKING GROUP

June 27, 2013
Conference Call

• A G E N D A •

9:00 am – 11:00 am

1. Administrative items
 - a. Call to Order, Introductions..... Alan Myers (5 minutes)
 - b. Receipt of Proxies Juliano Freitas (1 minute)
 - c. Review of Agenda Alan Myers (1 minute)
2. High Priority Incremental Load Study update (Approval item) Al Tamimi (15 minutes)
3. 2013 ITP20 Report (Approval item)..... Juliano Freitas (45 minutes)
4. 2015 ITP10 Scope (Approval item) Kelsey Allen (30 minutes)
5. Closing Items All

Relationship-Based • Member-Driven • Independence Through Diversity
Evolutionary vs. Revolutionary • Reliability & Economics Inseparable

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2013 High Priority Incremental Load Study

Al Tamimi

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Overview

- **Objective**
- **Assumptions**
 - **Reliability**
 - **Economic**
- **Assessment**
- **Data**
- **Metrics**
- **Schedule**

Objective

- **The High Priority Incremental Load Study is to develop a transmission plan to address the needs associated with projected oil and gas development loads in SPP, along with any other warranted incremental load impacts**
- **Study years: Reliability analysis on 2015, 2018 & 2023 with economic analysis for 2018 & 2023**
- **Re-evaluate SPS's suspended NTC-Cs**
 - Tuco – Neal Deal 345 kV
 - Tuco – Amoco – Hobbs 345 kV
 - Grassland – Wolfforth 230 kV
- **Results will feed into 2015 ITPNT & 2015 ITP10**

Assumptions

- **The reliability models will include current topology and Projects with approved NTC's.**
- **No Tres Amigas SuperStation DC project**
- **No Clean Line Energy Partner's projects**
- **No sensitivities**
- **2015S ITPNT Scenario 0 is source for 2015 reliability models**
- **RCAR source for 2018 and 2023 models for both reliability and economic assessments**

Assessment - Reliability

- **Analysis**
 - AC, N-1 contingency analysis
 - Consideration of 60 kV and above solutions to the problems identified
- **2015 Summer Peak (50/50),(90/10)**
- **2018 Summer Peak (50/50), (90/10)**
- **2023 Summer Peak (50/50), (90/10)**

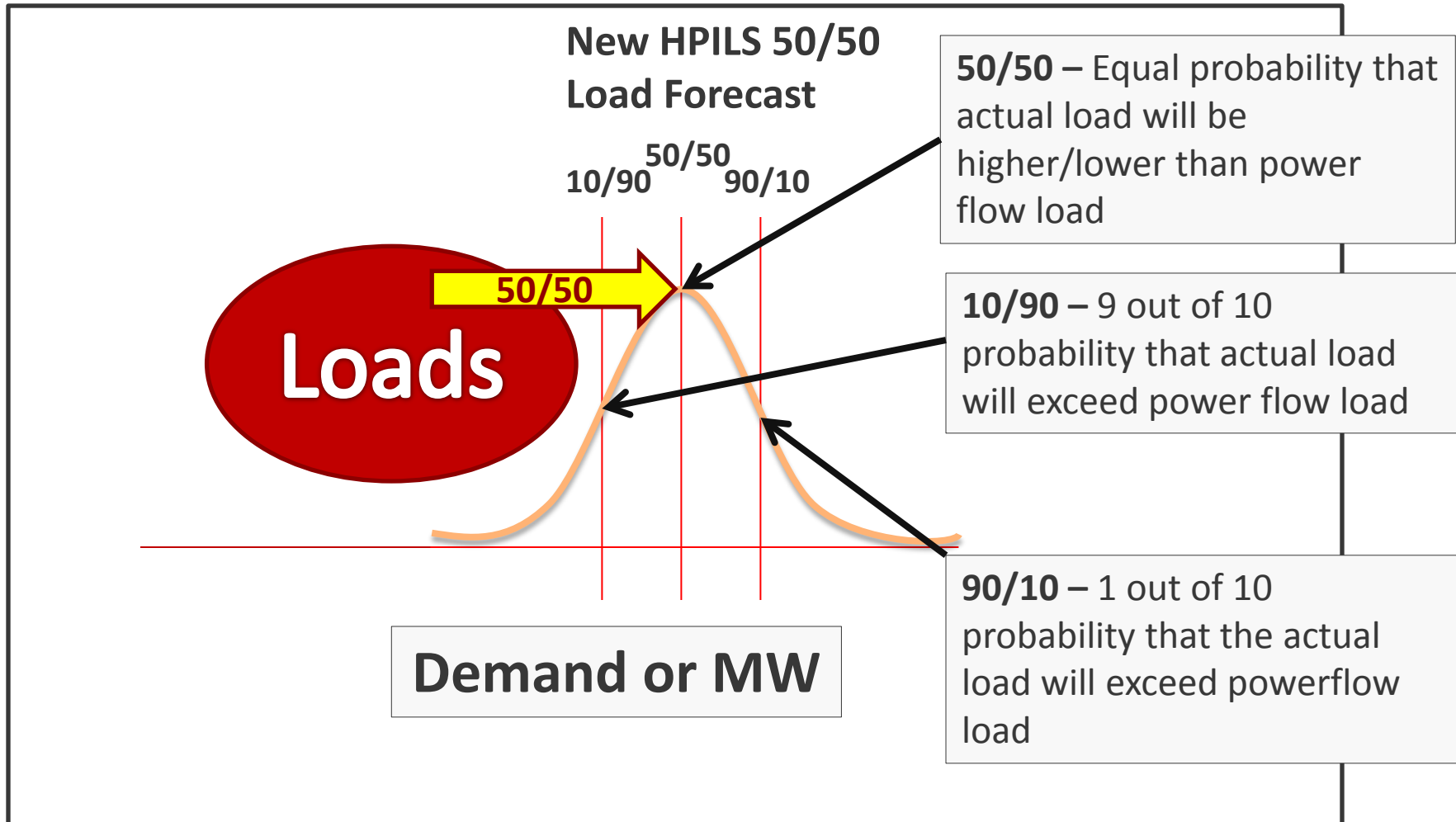
Assessment - Economic

- **Analysis**
 - RCAR constraints
 - 8760, SCUC, SCED
 - **Consideration of 100 kV and above solutions to the problems identified**
- **2018 (50/50), (90/10)**
- **2023 (50/50), (90/10)**

Data

- **HPILS loads**
 - 10/90 Low (9 out of 10 probability that actual load will exceed power flow load)
 - 50/50 Medium (Equal probability that actual load will be higher/lower than power flow load)
 - 90/10 High (1 out of 10 probability that the actual load will exceed powerflow load)
 - Include network to support load additions as required
- **Resource Plans**
 - The local Load Serving Entity (LSE) will need to plan for resources to serve the projected load and will be responsible for resource expansion assumptions

Load Forecast



Metrics

Will be reviewed by the ESWG

Metric Description
APC Savings
Value of Replacing Previously Approved Projects
Reduced Losses
Reduced Capacity Costs
Assumed Benefit of Mandated Reliability Projects
Mitigation of Transmission Outage Costs

Table 1: Monetized Cost Benefit Metrics for HPILS

Schedule

The study will begin in June 2013 with interim results in September 2014.

Tasks	Group to review/endorse	Start Date	Completion Date
Cases & Scope	TWG/ESWG	May 2013	June 2013
Data Collection	TWG/ESWG	June 27, 2013	August 2, 2013
Load Forecast Review	TWG/ESWG	May 2013	July 2013
Model Development & Review	TWG/ESWG	August 5, 2013	Sept 4, 2013
Short Term Reliability Assessment	TWG	July 2013	Sept 2013
Analysis	TWG/ESWG	September 2013	
AC Voltage Study	TWG	Aug 2013	Sept 2013
Interim Reliability Needs Recommendations	TWG	September 25, 2013	
Economic Assessment Begins		Early October 2013	
Project Development Request	TWG/ESWG	Oct 2013	Oct 2013
Final Reliability Assessment	TWG	Dec 2013	Jan 2013
Final Benefit Metrics Calculations	ESWG	Jan 2013	Feb 2013
Final report with recommended solutions	TWG/ESWG	Mar 2014	Mar 2014
	MOPC	Apr 2014	
	BOD		

2013 ITP20 Report

June 26, 2013



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Purpose

- **Approve the 2013 ITP20 Report**
- **Approve the 2013 ITP20 Plan**

Overview

- **Integrated Transmission Plan (ITP) is a Three Year Study Process**
- **Create a Cost-Effective, Flexible and Robust Transmission Network**
- **Evaluates the Need for EHV Projects to Mitigate Reliability, Economic and Public Policy Needs**
- **Five Distinct Futures were Considered for Possible Variations in System Conditions**

Overview

- **Groups Involved in the Development Included the Following:**
 - **Economic Studies Working Group (ESWG)**
 - **Transmission Working Group (TWG)**
 - **Regional Tariff Working Group (RTWG)**
 - **Cost Allocation Working Group (CAWG)**
 - **Markets and Operations Policy Committee (MOPC)**
 - **Strategic Planning Committee (SPC)**
 - **Regional State Committee (RSC)**

Overview

- **Models Benchmarked Against Historical Expectations**
- **Sensitivities were Performed to Ensure the Viability of the Portfolio**
- **Six Metrics Calculated to Measure the Final Portfolio Benefits**
- **ITP20 Final Portfolio Provides \$1.5 Billion in Net Benefit**
- **Expected Benefit to Cost Ratio of 2.79**
- **Average residential customer in SPP will see a decrease in their monthly electric bill of 9 cents**

Next Steps

- **MOPC and BOD approval**

2015 ITP10 Scope

June 27, 2013



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Overview

- **Splitting 2015 ITP10 scope into 3 portions**
 - Data inputs and assumptions
 - Analysis and transmission plan development
 - Consolidation of futures and analyzing final portfolio
- **Today**
 - Seeking ESWG approval on data inputs and assumptions portion:

Overview, Objectives, Stakeholder Process, Study Process, and Data Inputs Sections

Proposed Futures*

- **Future 1 – Business as Usual**
 - Normal load and generation growth
 - No policy changes
- **Future 2 – Decreased Base Load Capacity**
 - Reduction in coal, gas, or nuclear
 - Driven by various factors
- **Future 3 – Increased Input Prices**
 - Increased natural gas prices
 - Driven by reduction in natural gas extraction

*A 3rd future is not budgeted

Load Forecasts

- All futures have same load forecasts
- Use 2024 MDWG peak forecast
- Update loads from High Priority Incremental Load Study
 - Use 50/50 forecast
 - Scale from 2018 to 2019 and from 2023 to 2024

Topology and DC Ties

- **System Topology from 2024 ITP model**
- **Include new DC lines**
 - Tres Amigas DC tie and lines
 - Clean Line Plains & Eastern
- **Flows across DC lines and ties**
 - Confirmed transmission service

Recommendation

- **Staff recommends ESWG approve the 2015 ITP10 Scope's Stakeholder Process, Study Process, and Data Inputs sections to allow staff to begin work on the 2015 ITP10.**
- **Data Inputs includes**
 - **Futures**
 - **Model Assumptions**