



**Helping our members work together
to keep the lights on...
today & in the future**



SPP Engineering Staff Reports

**Regional State Committee (RSC)
January, 2007**

Overview

SPP Transmission Expansion Plan (STEP)

Overview of other planning studies

Supply Adequacy Audit

EHV Overlay Study

Westar Waiver

STEP Overview

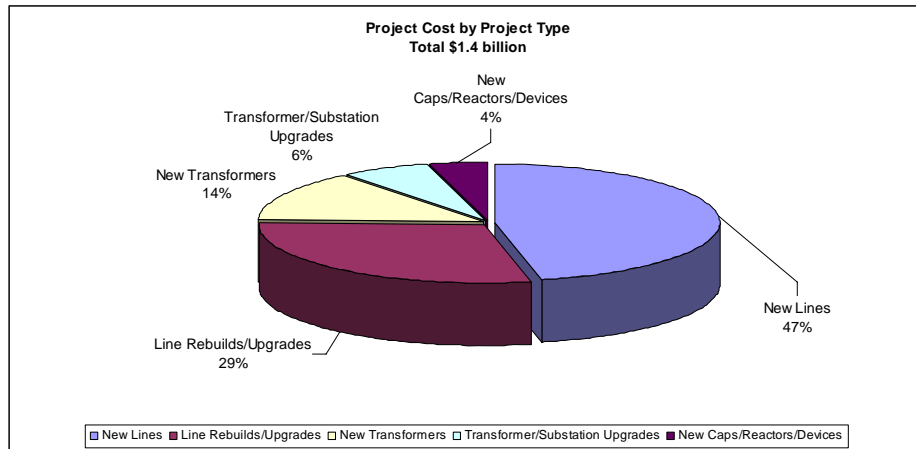
Open and Transparent Process

**Comprehensive Reliability Assessment for 2006 – 2016
including steady-state, dynamic, as well as reactive
reserve margin analyses and recommendations**

**\$1.4 billion of transmission projects for the years 2006 through
2016**

**The SPP Transmission Expansion Plan (STEP) is a
comprehensive summary of all transmission projects
planned or needed through the planning horizon.**

Executive Summary Transmission Projects 2006-2016



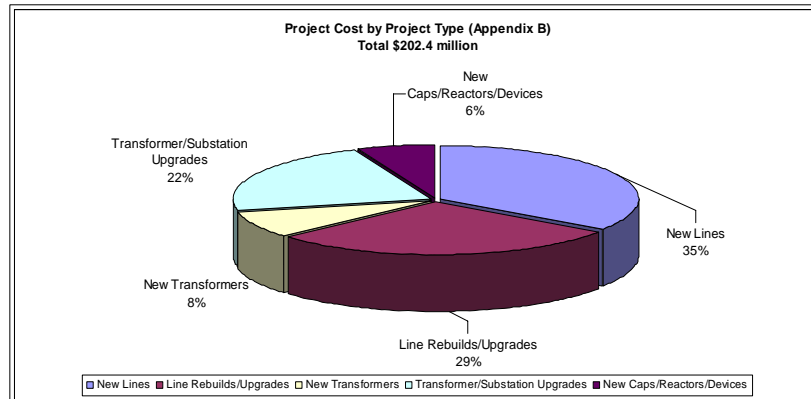
STEP Recommendations

#1 - The SPP Board of Directors (BOD) approves this 2006-2016 SPP Transmission Expansion Plan. The TWG and MOPC support this SPP RTO Staff recommendation.

#2 - The SPP BOD authorizes and directs the start of construction of projects listed in Appendix 'B' in this 2006 SPP Transmission Expansion Plan. The TWG supports this SPP RTO Staff recommendation. MOPC approved Recommendation #2 with a remand to the TWG to consider extending Appendix B beyond a 2 year commitment window for reliability projects through the entire planning horizon in the next STEP.

In response to MOPC direction, Staff has initiated project tracking with TWG members on all STEP projects to ensure that TOs "work the plan" and are taking steps to get reliability projects in long term capital budgets, work plans for permitting, ROW acquisition, etc. Quarterly status reports forthcoming with tracking metrics which will focus on status and costs.

Executive Summary Appendix B Projects



Lessons Learned in Expansion Planning

SPP Transmission Expansion Plan Process and the SPP Aggregate Study Process needed to be better synchronized

Better project tracking is required

Need to clearly identify projects that are required for reliability

Need to clear up some confusion about how the Economic Planning assessment fits into the Expansion Plan

SPP Economic Modeling Process needs improved documentation and stakeholder involvement

Base Plan Upgrades

Base Plan Guidelines Task Force (BPGTF) making progress – MOPC approved recommended guidelines in April 2006 which included potential base plan funding of projects driven by member standards/procedures, not SPP Criteria, through 2007.

Staff has recommended, and MOPC has approved, base plan funding for 53 projects and \$113M of E&C investment in the STEP. Cost allocations will be determined and shared with stakeholders after BOD approval.

Recommendations regarding cost recovery for projects associated with ineffective Transmission Operating Directives are being reviewed.

BPGTF is still formulating position on cost recovery for projects associated with NERC standard TPL-003.

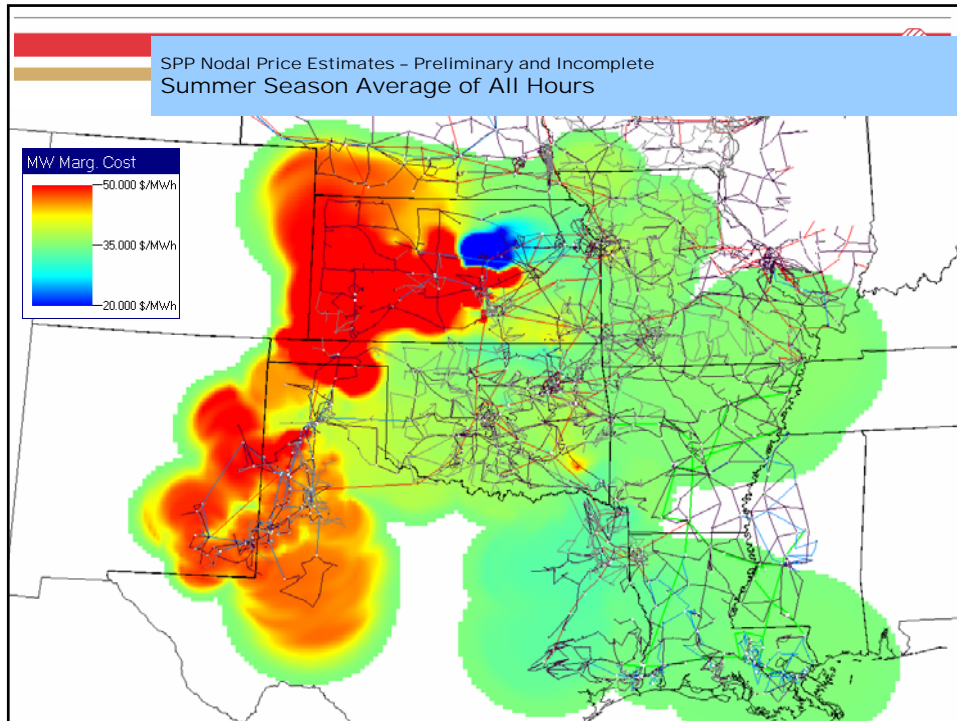
Economic Planning


Economics Modeling and Methods Task Force documented process, assumptions, and expected results

Screens in STEPs continue to identify several promising economic expansion projects within the SPP footprint

GED enhancing MarketSYM/PowerWorld to include Security Constrained Unit Commitment logic

SPP Staff evaluating PROMOD IV and GridView packages now under 90 day trials with training as well as benchmarking analysis in process



SOUTHWEST POWER POOL 

Other Transmission Expansion Studies

Texas CREZs

- SPP proposing 3rd leg of “X” plan with 345 kV line and 600MW HVDC tie into DFW
- 20% cost of ERCOT panhandle loop
- Save \$50M+/year in congestion costs

Other ERCOT Studies

- 200- 600 MW HVDC ties in West Texas & Panhandle areas look very promising
- Entergy QPRs with 450 – 1,050 MW HVDC
- Hugo II outlet and 400 MW HVDC

WWW.SPP.ORG 12

Other Transmission Expansion Studies (cont.)

LPSC studies

Joint planning studies for TX/OK, as well as TX/LA/AR

Ozarks

KETA

MISO/SPP Joint Plan

DOE Congestion Studies for NIETCs



Supply Adequacy Audit

Supply Adequacy Audit

Last performed in 1999

SPP Staff will perform again in first quarter of 2007, coincident with EIA-411 data collection efforts

SPP staff must be able to rely on EIA-411 data to determine compliance against SPP capacity margin requirements, as well as calculations based on safe harbor provisions for Base Plan funding for new DRs under the SPP OATT

Careful review of EIA-411 data

- Net Dependable Capacity for wind can not be 100% of its total capacity
- Jointly owned generation must not be double counted
- All resources have long-term firm deliverability under SPP OATT
- All transactions match internal and external to SPP
- TDUs like AECC, KEPCO, etc. needs to be distributed properly
- Data needs to be compared with last year for any major changes/errors



SPP EHV Overlay Study

Background

SPP Transmission Expansion Planning process in place and effective in identifying reliability needs, least cost solutions and potential economic upgrades through the 10 year planning horizon

Desire by Staff and others to identify long range vision for bulk power transmission network in SPP with input from independent entities with EHV experience

Monies budgeted and approved for consulting services to help with long range planning in SPP Engineering

Request for Proposal

Strawman drafted by Staff in 3rd Quarter 2006

Discussed at TWG meetings

Approved by TWG in November

Issued Dec 1st to dozen A/E firms

4 comprehensive proposals received by Dec 29th deadline

SPP EHV Overlay Contractors Selected



EHV Overlay Objectives

Create a blueprint for 345, 500, 765 kV or higher overlay needs in and around SPP

- **Identify an approach to determine impacts on existing SPP Criteria, e.g., reliability margins**

Approach to optimize existing assets in footprint

Recommendations on increased ties or synchronous operations with ERCOT and WECC

Next Steps

Statement of Work being finalized

White paper issued to outline objectives, as well as stakeholder feedback process and issues

Major agenda items at TWG meeting on February 7-8 in Tulsa

Completion slated for mid-2007 with interim milestones coordinated with SPP calendars

Appreciate support of members and stakeholders throughout the assessment

Questions/comments to EHVOverlay@spp.org

EHV Overlay White Paper

EHV Overlay planning process will be transparent and deliver a plan that is traceable, defensible and dynamic.

Process: Timeline and milestones

Need input on “futures” scenarios

Concepts: Transmission as an “enabler” and “hedge” that provides “flexibility”, as well as “reliability”



Westar Waiver Request

Background

Waiver requested Oct 13th in accordance with Section III.C.1 under SPP OATT Attachment J

Associated with OASIS Request 1086655 for new 20 year, 225 MW DNR at Spring Creek for Westar NITS

SPP recommending Rose Hill – Sooner 345 kV project to provide service, in lieu of 138 kV rebuilds of several flowgates between Northeast OK and Southeast KS

The 120 day deadline for responding to this waiver request expires Feb 10th

Staff Recommendation & MOPC Actions

Staff Assessment Regarding Waiver:

- Rose Hill – Sooner 345 kV project preferred due to:
 1. regional and long term benefits of project,
 2. increase in wholesale competition, and
 3. need for project to accommodate Red Rock outlet
- Recommend full Base Plan funding for Westar waiver

MOPC Actions

- Requested CAWG review and feedback
- After CAWG review and their unanimous support of waiver recommendation, the MOPC approved SPP Staff's recommendation to provide full Base Plan funding of Rose Hill – Sooner 345 kV project



Jay Caspary
Director, Engineering
501.614.3220
jcaspary@spp.org