Overview

- SPP Transmission Expansion Plan (STEP)
  - Highlights of STEP
  - Notices to Construct (Appendix B)
- Oklahoma Electric Power Transmission Task Force (OEPTTF) Study
- EHV Overlay Restudy
- Joint Coordinated System Plan

2007 SPP Transmission Expansion Plan Stakeholder Involvement

- November 8, 2006 - Scope Reviewed and Approved by TWG
- May 15, 2007 - Spring Planning Summit
- November 17, 2006 - Staff provided overview of SPP Transmission Expansion Plan 2006-2017 Report to TWG
- August 15, 2007 - Fall Planning Summit 100-kV and above - public review of recommended plans
- August 16 through August 23, 2007 - Stakeholder feedback on recommended plans
- October 9, 2007 - Fall Local Planning Web Conference 69-kV and below - public review of recommended plans
- October 9 through October 17, 2007 - Stakeholder feedback on recommended plans

SPP Transmission Expansion Plan (STEP) Executive Summary

- $2.2B of transmission projects
- A comprehensive summary of all transmission projects planned or needed in the 2008 – 2017 planning horizon:
  - 96 Models vs. 15 Models – it parallels Tariff Studies processes, increased granularity
  - Recognition of ZONAL upgrades - Additional $32M in total upgrades
- SPP is asking for mitigation of reliability issues resulting from projects that are unable to be completed within the given SPP Expansion Plan need date
- Quarterly Requests for Review
  - Staff will not wait 12 months before making recommendations as reliability projects are identified
  - Issue “Notification to Construct”
  - Project owners can expedite necessary commitments
MOPC Concerns

"Some upgrades can not be implemented in time. Will the T.O. be at risk of "non-compliance" with the RE?"

• "NO" - STEP tariff requirements (FERC OATT) & "RE Compliance" (NERC stds) are not the same.
• Where necessary, mitigations will always be identified first.
• STEP is only used to supplement some RE data requirements
  1. Prevents duplication of effort
  2. Supplements NERC stds "long term, category B"
  3. Supplements NERC stds "Category C & D"

MOPC Concerns cont.

"Many projects had the need date advanced. How did this happen?"

• 11 reasons were identified as listed in the report on page 14.
• These include:
  1. 96 models
  2. New "scenario 5" model
  3. Forecast load changes
  4. Generation dispatch changes
  5. Etc.

Executive Summary ‘Appendix A’ All Upgrades, 2008-2017

2008 - 2017 Cost by Network Upgrade Type Appendix A $2.2 Billion

Executive Summary 2007 STEP vs. 2006 STEP

2007 STEP vs. 2006 STEP

<table>
<thead>
<tr>
<th>Upgrade Type</th>
<th>2007 STEP</th>
<th>2006 STEP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zonal Upgrades</td>
<td>$20 M</td>
<td>$3</td>
</tr>
<tr>
<td>Base Plan Fundable, Reliability Upgrades</td>
<td>$171 M</td>
<td>$147 M</td>
</tr>
<tr>
<td>&quot;Existing Facilities&quot;, pre January 1, 2006</td>
<td>$14 M</td>
<td>$35 M</td>
</tr>
<tr>
<td>Proposed Economic Upgrades</td>
<td>$465 M</td>
<td>$1.4 M</td>
</tr>
<tr>
<td>Outside Appendix B financial commitment window</td>
<td>$226 M</td>
<td>$730 M</td>
</tr>
<tr>
<td>Regional Reliability upgrades</td>
<td>$4 M</td>
<td>$0</td>
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<tr>
<td>Zonal Criteria reliability upgrades</td>
<td>$65 M</td>
<td>$15 M</td>
</tr>
<tr>
<td>Reliability upgrades not under the OATT</td>
<td>$65 M</td>
<td>$15 M</td>
</tr>
<tr>
<td>Facility owner “planned projects”</td>
<td>$320 M</td>
<td>$378 M</td>
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<tr>
<td>Upgrades from Transmission Service Agreements</td>
<td>$291 M</td>
<td>$320 M</td>
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<tr>
<td>Upgrades from Generation Interconnection Agreements</td>
<td>$65 M</td>
<td>$0</td>
</tr>
<tr>
<td>Total</td>
<td>$2.2 B</td>
<td>$1.4 B</td>
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Recommendation

• The SPP RTO staff recommends that the SPP BOD approve this report, “SPP Transmission Expansion Plan 2008 -2017”
• The MOPC recommends that the SPP BOD approve the “SPP Transmission Expansion Plan 2008-2017”

Appendix B

Financial Commitment Window

• 2 year window for 2006 STEP
• MOPC said, “too short”
  • TWG recommended 4 year window
• Appendix B
  • SPP reliability upgrades in financial commitment window years 1 - 4, (2008-2011) recommended to receive a "Notification to Construct" (2006 “Letters of Authorization”)
Appendix A – Projects Summary

Oklahoma Electric Power Transmission Task Force (OEPTTF)

- Scope approved in December
- January 24th, 2008, Oklahoma City – Transmission Expansion in Oklahoma and Beyond Summit
- Optimal grid expansion in OK, TX, and beyond based on latest STEP and up to 6,000 MW new OK wind development, primarily in panhandle
- Finalize study in 1st quarter 2008

EHV Overlay Restudy

EHV Overlay Study completed in early 2007

Alt 5 – 765 kV Loop Optimized
Wind Assumptions are Key

- CREZ 1500/600 transmission expansion and 13,000 MW of new wind in base for EHV Overlay Study
  - Majority of new wind in Texas Panhandle
  - Sensitivity evaluated 20,000 MW of new wind
- DRAFT NREL/AWEA/DOE report for Wind Vision shows significant shift in expected wind development compared to wind potential maps
  - 2030 developments projected to exceed 35,000+ MW in SPP, without counting any development in Texas

EHV Overlay Restudy

- Working with Quanta/Infrasource on restudy
  - Approved scope
  - Completed stakeholder survey
  - Finalizing modeling
  - Developing scenarios
  - Evaluating 345 kV build-out options
  - Comparing economic alternatives
  - Results expected first quarter 2008
• Working on Joint Coordinated System Plan (JCSP) with MISO, PJM, TVA and others:
  • Joint Operating Agreements require development of joint plans every few years
  • Interregional collaborative planning is needed today
  • 2018 reliability and 2024 economic analysis will compliment DOE/NREL Eastern Interconnection wind integration study
  • Focus on expansion planning and operational impacts of significant wind development
  • November 1, 2007 kickoff meeting in Pittsburgh
  • Economic planning workshops:
    1. Nashville - Dec 11-12, 2007
    3. Preliminary resource forecasts shared at Feb 5 meeting - webinar available

Joint Coordinated System Plan