

 SPP

SPP/ERCOT
Joint
Coordinated
Planning Study

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SPP Regional
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SPP/ERCOT Joint Coordinated Planning Study

- ❖ **OBJECTIVE: Identify potentially beneficial transmission expansion projects that leverage existing SPP & ERCOT interconnections and infrastructure**
- ❖ **Use CFE/ERCOT INTERCONNECTION STUDY, dated DECEMBER 19, 2003, as a template**



Modeling

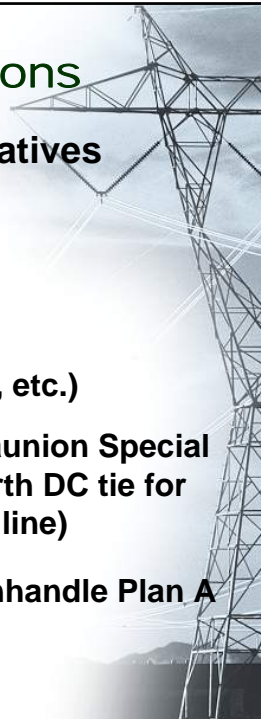
- ◆ **Assume SPP & ERCOT run load flow studies separately, and incorporate necessary details into SPP & ERCOT dynamics models**
- ◆ **Models to use**
 - * 2010 summer peak & 2008 Minimum load
- ◆ **Model updates**
 - * Update models to include future planned projects
 - * Agree on generation expansion scenarios
 - 3000 MW in Texas Panhandle
 - Others
 - * Profile existing wind output (rather than 0 MW)
 - * Add “committed” new wind farms, including new Texas RPS and sites identified by Wind Coalition



Needs/Expansion Options

◆ Identify needs/expansion alternatives (Plans to study)

- * Location of interconnect(s)
- * Size of interconnect(s)
- * Type of interconnect (HVDC, VFT, etc.)
- * Assess potential impacts on Oklahoma Special Protection Scheme (i.e., open North DC tie for loss of Lawton-Oklahoma 345 kV line)
- * Run with and without Kansas/Panhandle Plan A

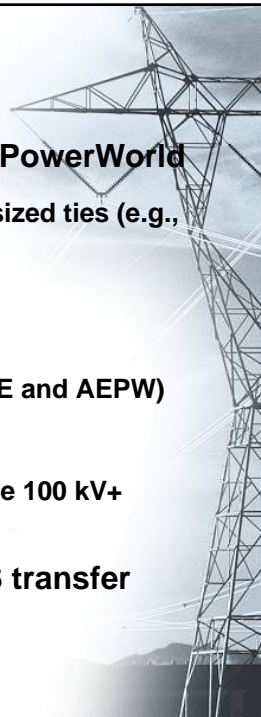


Analyses

* Phase I - Import & Export study using PowerWorld

- Build several base models with different sized ties (e.g., 200, 400, 600 MW)
 - Fully loaded toward SPP
 - Fully loaded towards ERCOT
- Test transfers in and out of SPS (also OGE and AEPW)
- Monitor 100 kV+ facilities in SPP
- Selected multi-terminal outages and single 100 kV+ contingencies in SPP

* Voltage stability study (effects on SPS transfer limits)





Analyses...cont

◆ Phase II - Economic Analysis

- * **Cost/Benefit analysis**
- * **Market analysis w/ MKTSYM (need ERCOT data)**
 - Monitor flowgates and 100 kV+ facilities in SPP (non-contingency)
 - Consistent assumptions on load profiles, fuel prices, etc.
 - Perform OPF using SPP and 1st tier generators
 - Objective to minimize transmission costs and production cost



Timeline

❖ Proposed Timeline

◆ Phase I

- * Finalize Scope – end of April, 2005
- * Preliminary results – end of June, 2005
- * Final results – mid August, 2005 (draft report mid September)

◆ Phase II

- * Preliminary results – end of September, 2005
- * Final results – end of December, 2005

❖ Service Team and Responsibilities

◆ Leads

- * ERCOT – Warren Lasher
- * SPP – Alex Lau



<http://www.spp.org>

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