



2008 SWAT CATS High Voltage Transmission Plan **Study Plan**

Background

The Central Arizona Transmission Study – High Voltage (CATS HV) technical work group is a subregional planning organization of transmission owners and interested stakeholders tasked with examining the near and long term high voltage transmission system (mostly 115kV and 230kV) requirements for the area between Phoenix and Tucson. The area is currently served by a number of Load Serving Entities (LSEs) and the work group is tasked with the development of a transmission plan that meets the requirements of the LSEs as well as the potential for new transmission customers (generation resources, etc.) to deliver energy across the CATS HV footprint.

With the completion of the 2007 CATS HV study efforts, two key issues have been identified for additional review as a component of the 2008 CATS HV Transmission Plan. Specifically, the 2007 Transmission Plan identified the need to include additional detailed 69kV subtransmission as component for the coordinated CATS HV 2008 Ten-Year Transmission Plan as well as the potential impacts of the CATS HV transmission system with new generation resources to serve local and regional loads.

Study Plan

Task 1

Prepare a coordinated Ten-Year Transmission Plan (specifically 2018) for the CATS HV study area to be included in the 2008 SWAT Transmission Plan. The coordination of the 2008 CATS HV Transmission Plan will require the following (but not limited to):

- Coordinate 2018 base case development for the CATS HV region; including individual stakeholder ten-year transmission plans to include subtransmission and the associated system representation. The 2008 WestConnect coordinated base case will be used for the source for this case development.
- In addition to incorporating the detailed system representation, each LSE will be responsible for supplying their respective load and resource information for the 2018 time frame to be included in the CATS HV base case.
- Conduct an assessment of the coordinated CATS HV Transmission Plan in accordance with NERC/WECC planning criteria.

Task 2

Review the potential impacts to the CATS HV transmission system with the interconnection of new generation resources proposed to be located within the CATS HV study area. This generation resource assessment will require the following (but not limited too):

- Coordinate potential generation resource “injection” locations for the CATS HV 2018 base case; including individual stakeholder ten-year resource plans and the potential for opportunistic locations based on reliability needs.
 - Initially, a matrix of the following substation sites may be evaluated for generation:
 - Pinal West, Santa Rosa, Desert Basin, Sundance, Saguaro, Pinal South, Empire, and San Manuel
- Conduct an assessment of the impacts of the new generation resources to the CATS HV Ten-Year Transmission Plan.
- Compare the assessment from the Task 1 study scope (which assumed generation resources imported to the CATS HV study area) to that of this local generation resource assessment; noting impacts in losses, transmission overloads, etc. as required.

Task 3

The final task for the 2008 SWAT CATS HV Transmission Plan is to document the findings of the analysis identified in this Study Plan as a component of the overall 2008 SWAT Transmission Plan assessment, specifically:

- Document the findings of the 2008 CATS HV Transmission Plan and coordinate the final report with the overall 2008 SWAT/WestConnect Transmission Plan report.

Study Timeline

The projected milestones and timetable to meet the overall schedule for the 2008 SWAT/WestConnect Transmission Plan is as follows:

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| • Draft Study Plan Distributed to CATS HV Members | <i>October 15, 2007</i> |
| • Preliminary Comments to Study Plan | <i>October 22, 2007</i> |
| • Present CATS HV Study Plan to SWAT Steering Committee | October 31, 2007 |
| • Finalize detailed Study Plan and Gen. Scenarios | January 15, 2008 |
| • Initiate 2008 CATS HV transmission planning | First Quarter 2008 |
| • Draft Report | August 31, 2008 |
| • Final Report | October 15, 2008 |
| • Incorporate with Annual SWAT/WestConnect Report | October 31, 2008 |