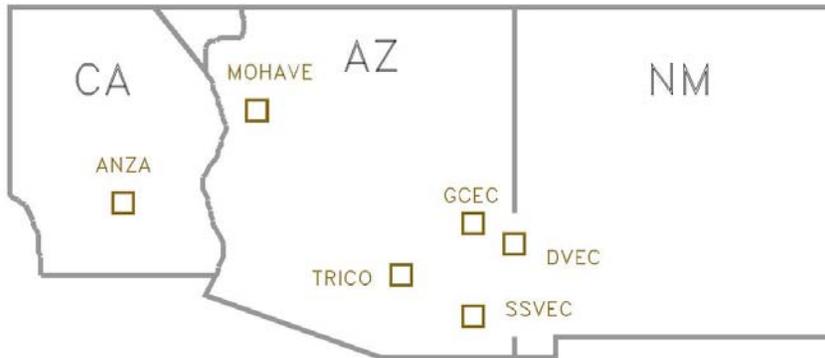


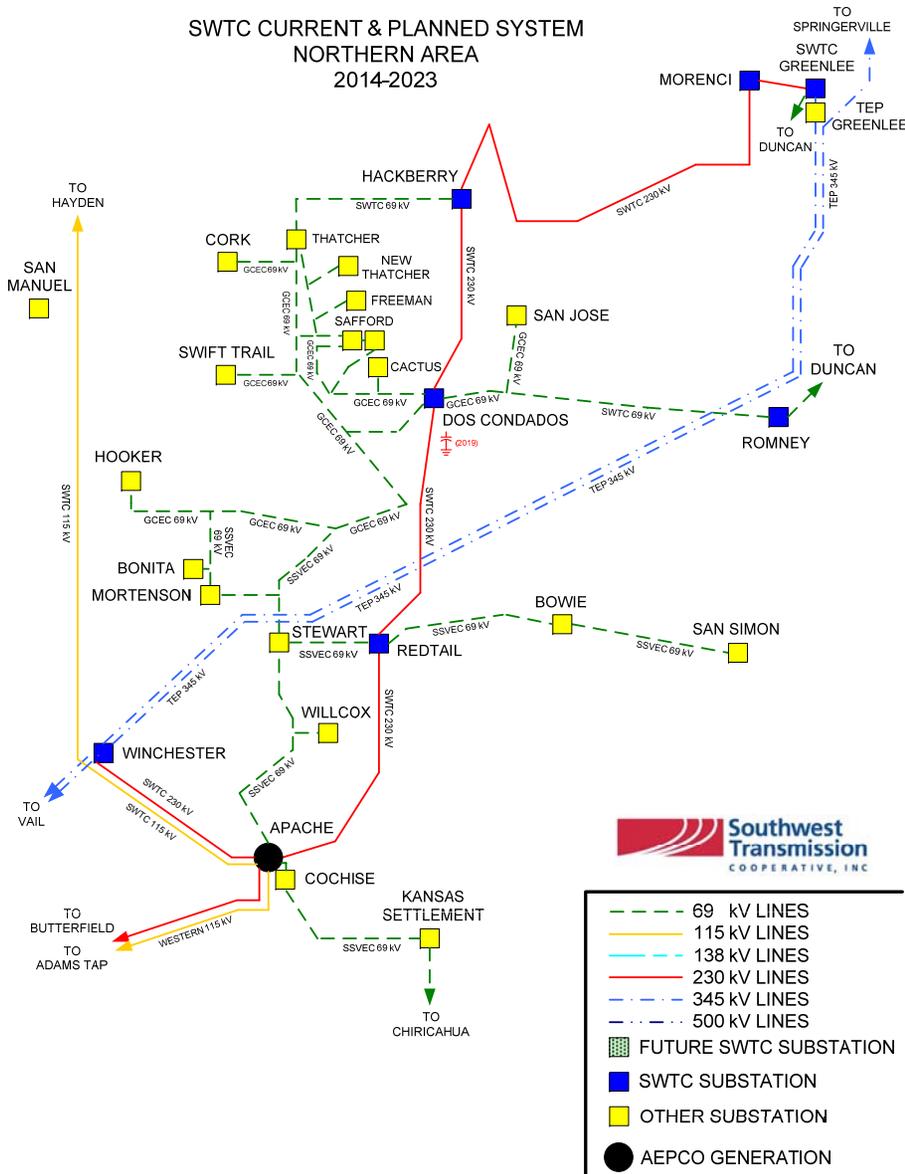
Southwest Transmission Cooperative, Inc. (SWTC) 10 Year Plan Presentation (2014-2023)

8TH BTA Workshop #1
ACC Hearing Room
May 15, 2014

Overview of SWTC

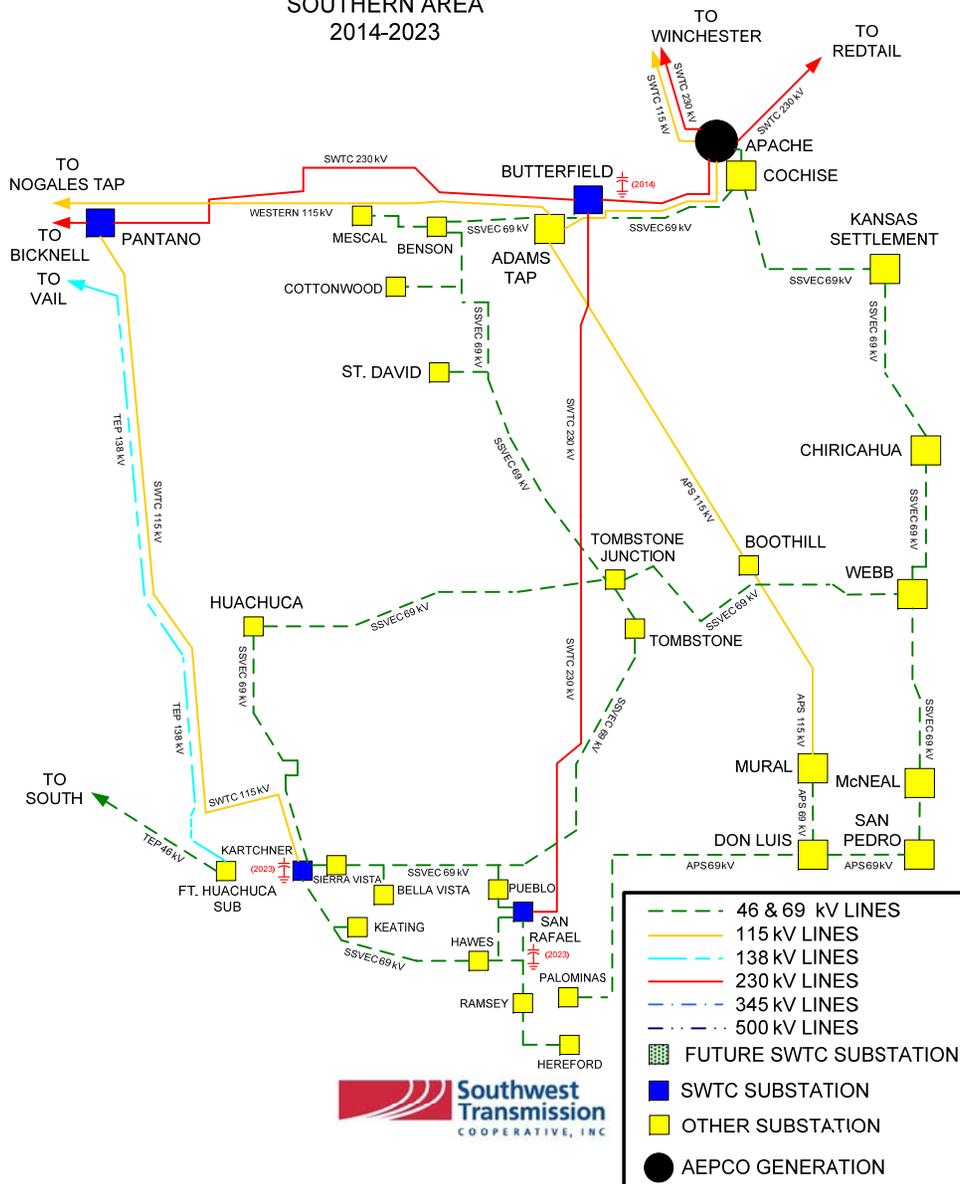


- 6 Member-owners
- 2013 Coincident Peak Load: 635.9 MW (6/30/14 @ 15:30)
- SWTC's transmission assets include 620.2 miles of transmission line and 26 substations to serve member load.
- SWTC is in Western's Balancing Authority Area



- New Projects: None
- Changes from 7th BTA (2012-2021 10 Yr Plan):
 - Apache/Hayden to San Manuel 115 kV Line deferred from 2017 to indefinitely.
 - 2nd Greenlee 345/230 kV transformer deferred from 2015 to indefinitely.

SWTC CURRENT & PLANNED SYSTEM
SOUTHERN AREA
2014-2023



- New Projects: None
- Changes from 7th BTA (2012-2021 10 Yr Plan):
 - San Rafael 2nd 230/69 kV transformer in-service deferred from 2021 to indefinitely

Additional Projects Under Consideration



- Apache/Hayden to San Manuel 115 kV Line
- Saguaro to Thornydale 115 kV Line
- Thornydale to Twin Peaks 115 kV Line
- CAP 115 kV Line Tap to SWTC Sandario Substation
- Valencia CAP Black Mountain 115 kV Line
- Tombstone Junction Project

ACC Staff Questions



- ***Describe all technical studies that were performed in support of your filed transmission plan.*** The technical studies performed in support of SWTC's filed transmission plan include those performed for the NERC TPL Standards, those performed for internal long range plan needs and those performed with other entities involved in Cochise County Area studies.
- ***List all reports that exist for the studies identified in item 1 and identify which reports were not included in your ten year plan filing.*** The reports, none of which were previously filed, and are currently in draft form are:
 - 2013 SWTC Transmission Planning Assessment Report
 - Long Range Transmission Plan (2023-2032)
 - Cochise County Area Transmission Analysis

ACC Staff Questions, Cont.



- ***Identify all transmission projects in your transmission plan for which power flow and stability analyses have not been performed or for which reports have not been filed. Describe how and when do you intend to respond with the required studies and reports.*** Power flow and stability analyses were performed for all projects, though the attendant reports mentioned in the previous slide have not been filed with the ACC as they have not yet been finalized.

ACC Staff Questions, Cont.



- ***Describe any stakeholder input and review that occurred regarding your transmission plan.*** The current Ten Year Plan was presented at the SWAT Oversight Committee Meeting on November 18, 2013 and the WestConnect Annual Planning Workshop on November 19, 2013, with slight differences from the plan filed with ACC in January of this year. Twice a year SWTC plans are presented at joint SWTC/TEP Quarterly Stakeholder Transmission Planning Meetings as required by FERC Order No. 890. In addition, all projects receive a “peer-review” by SWTC’s Class A Operating Committee (CAOC) on an on-going basis. Changes agreed to by the CAOC and the SWTC Board are then incorporated into a Construction Work Plan.

ACC Staff Questions, Cont.



- ***Please identify the subregional transmission planning forum(s) in which your transmission plan was addressed. Were your project(s) or planned facilities studied in that forum? Did your project(s) or plan undergo a peer review in that subregional forum and were they incorporated into the subregional plan?***
SWTC's plans were addressed at SWAT and WestConnect as noted in the previous slide . The projects were studied and reviewed in this forum and were incorporated into the WestConnect Transmission Plan.

ACC Staff Questions, Cont.



- ***Identify all projects in your filed transmission plans that were not addressed in a subregional transmission planning forum.*** None.
- ***Describe which transmission projects have been avoided or delayed by the effects of distributed generation and energy efficiency programs.***
Hard to quantity, as SWTC employs a load forecast that already considers the effects of renewables and energy efficiency programs of its member cooperative's loads.

ACC Staff Questions, Cont.



- ***Describe the steps being taken to evaluate the transmission system adequacy impacts of the potential coal plan closures resulting from EPA regulations.*** SWTC is currently in the process of evaluating the transmission effects of the proposed change from coal to natural gas of one of its larger units at the Apache Generating Station, as part of AEPCO's counter proposal to the EPA. SWTC is also involved in the effort of the WestConnect Planning Management Committee and SWAT Coal Reduction Task Force to study the effects of these plant closures in the Desert Southwest.

ACC Staff Questions, Cont.



- ***Describe how the Arizona-Southern California September 8, 2011 outage has affected transmission system adequacy planning within your company.***
SWTC continues to study its system according to the NERC Planning Standards and the WECC System Performance Criteria. SWTC has been involved with webinars and other activities associated with the Sept. 8th outage through WECC. SWTC has reviewed WECC's recommendations as a result of the September 8th outage and incorporated those that apply to SWTC's transmission system planning and operations.

ACC Staff Questions, Cont.



- ***Describe the steps being taken to evaluate the impacts on transmission system adequacy, including transmission system ancillary service requirements, of the increasing penetration of variable energy resources.*** As mentioned previously, SWTC's load forecast, that is used to conduct transmission system analyses, includes the effects of Member System energy efficiency and renewable resources. There are currently no significant variable energy resources connected to the SWTC system. Additionally, AEPSCO is involved in the "Southwest Variable Energy Resource Initiative" or SVERI, organized in the fall of 2012, that was set up to evaluate likely penetration, locations and operating characteristics of variable energy resources within the Southwest over the next 20 years.

Questions?

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