2nd Quarter

Stakeholder Transmission Planning Meeting

June 18, 2013

Unisource Energy Headquarters

88 E. Broadway

Tucson, AZ

9:00 a.m. – 12:00 p.m.

Agenda

1) Welcome, Introductions, and Meeting Overview
2) Review of action Items from 2012 4th Quarter Meeting
3) SWAT and WestConnect Overview
4) SWTC 2013 Study Update
5) TEP/UNSE 2013 Study Update
6) WECC Update
7) Stakeholder Questions/Comments
8) Action Items

1. Welcome, Introductions & Meeting Overview

- Welcome
- Introductions
- Meeting Overview

Meeting Overview

- To provide for stakeholder input into the transmission planning process by:
  - Facilitating open, transparent, and coordinated transmission planning with all affected stakeholders as required by FERC (OATT Attachment K)
  - Describing the 10 Year transmission planning process
  - Presenting 10 Year Transmission Plans
  - Supporting and coordinating stakeholder participation in Regional Planning Efforts (SWAT, WestConnect, and WECC)
  - Accommodating Economic Study Requests

We will provide other forums to address local area project concerns

- For example, joint planning sessions with Pima County jurisdictions
- Today, time is needed to meet FERC requirements to involve Stakeholders in the *regional* transmission planning process

2. Status of Action Items From December 11, 2012 4th Quarter Stakeholder Meeting

- There were no action items.

3. SWAT and WestConnect Overview

- Planning Groups in Western Interconnection
- SWAT Footprint
- Website information
- FERC Order 1000 Update

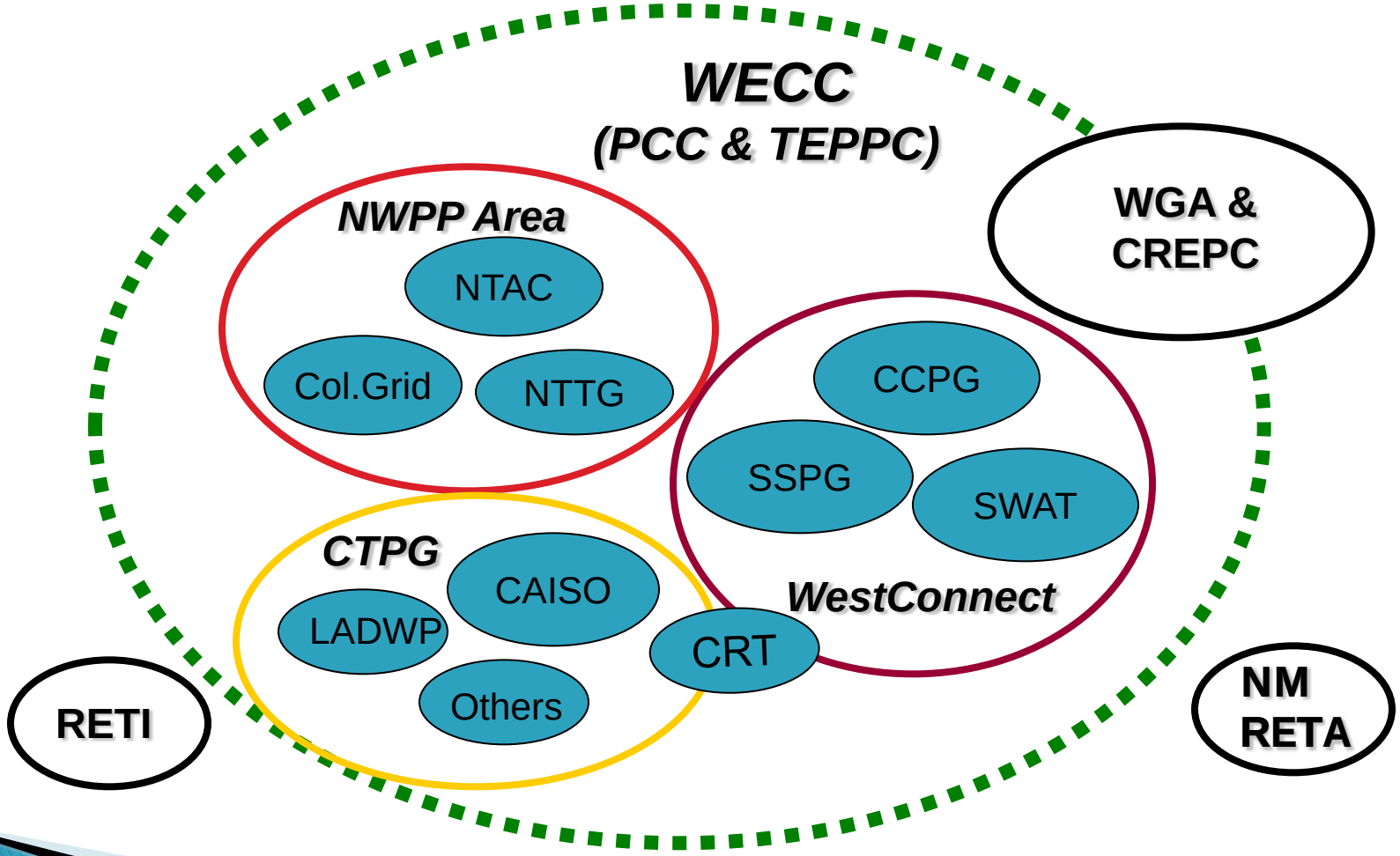
SWAT & WestConnect Overview

- The Southwest Area Transmission (SWAT) is a sub-regional planning group within the Western Interconnection
- It is comprised of transmission regulators/government entities, transmission users, transmission owners, transmission operators and environmental entities
- The goal of SWAT is to promote regional planning in the Desert Southwest. It includes transmission planning subcommittees, which are overseen by the SWAT Oversight Committee
- SWAT is governed by a Charter

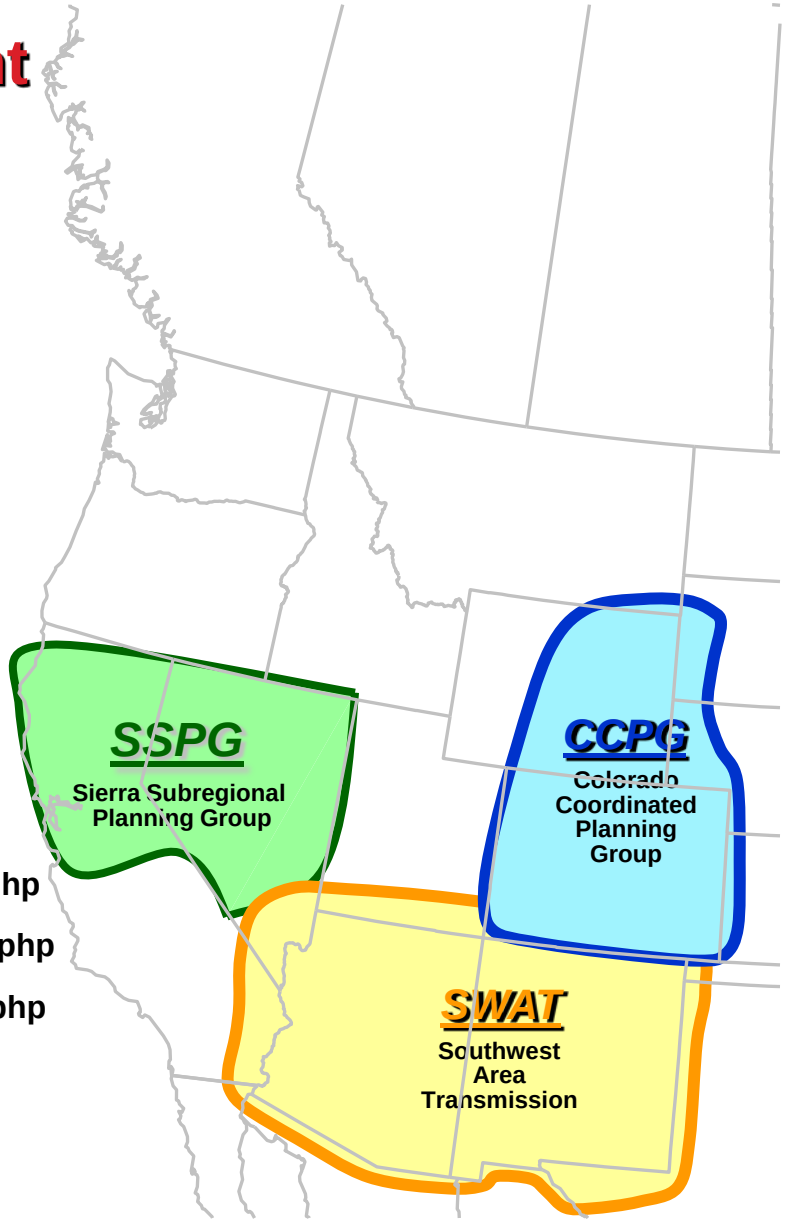
SWAT & WestConnect Overview (cont.)

- WestConnect is composed of utility companies providing transmission of electricity in the United States
- Its members work collaboratively to assess stakeholder and market needs and to develop cost-effective market enhancements to the western wholesale electricity market
- WestConnect is committed to coordinating its work with other regional industry efforts to achieve as much consistency as possible in the Western Interconnection

Western Interconnection Transmission Planning Groups



WestConnect Footprint with Sub-Regional Planning Groups



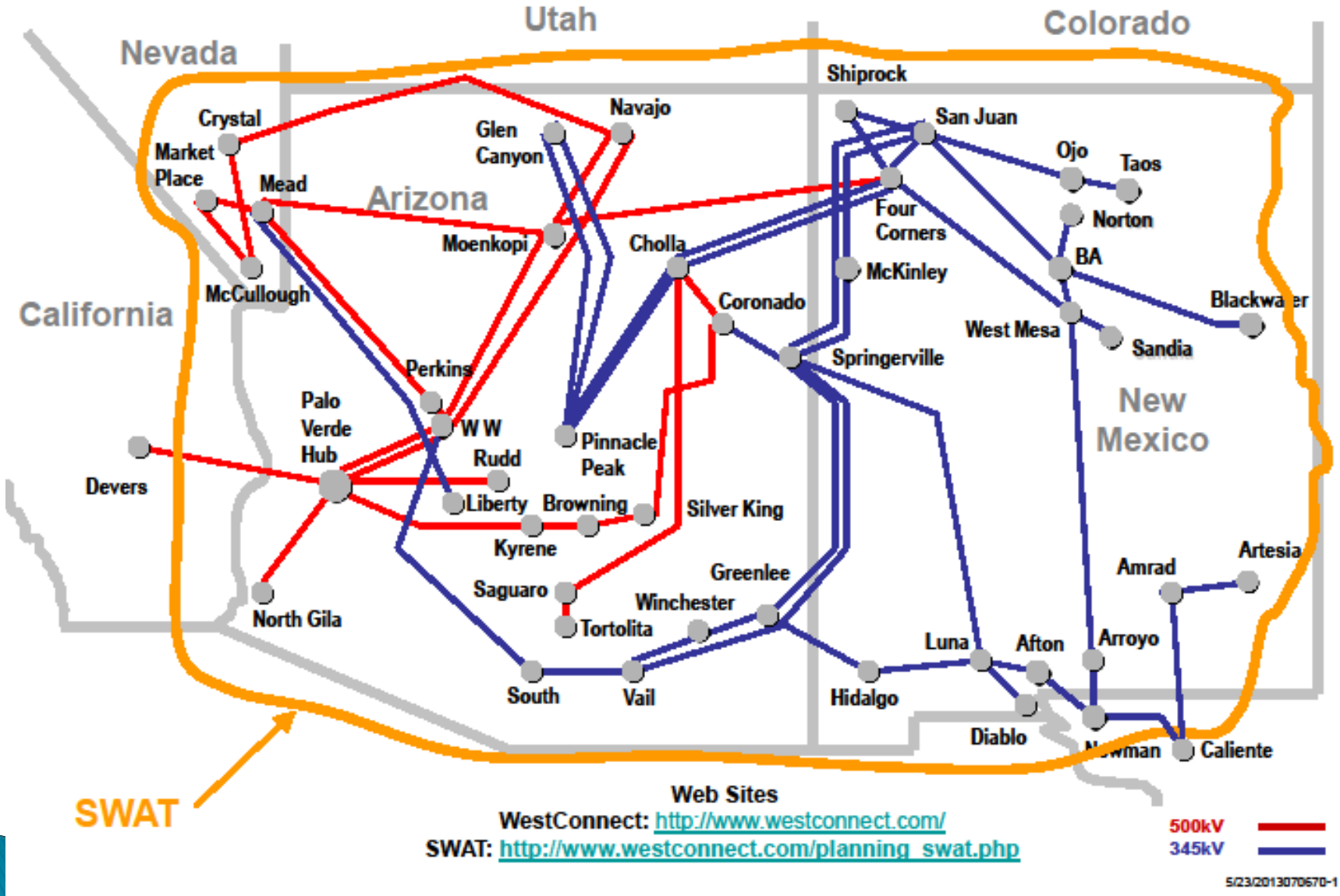
SWAT – http://www.westconnect.com/planning_swat.php

SSPG – http://www.westconnect.com/planning_sierra.php

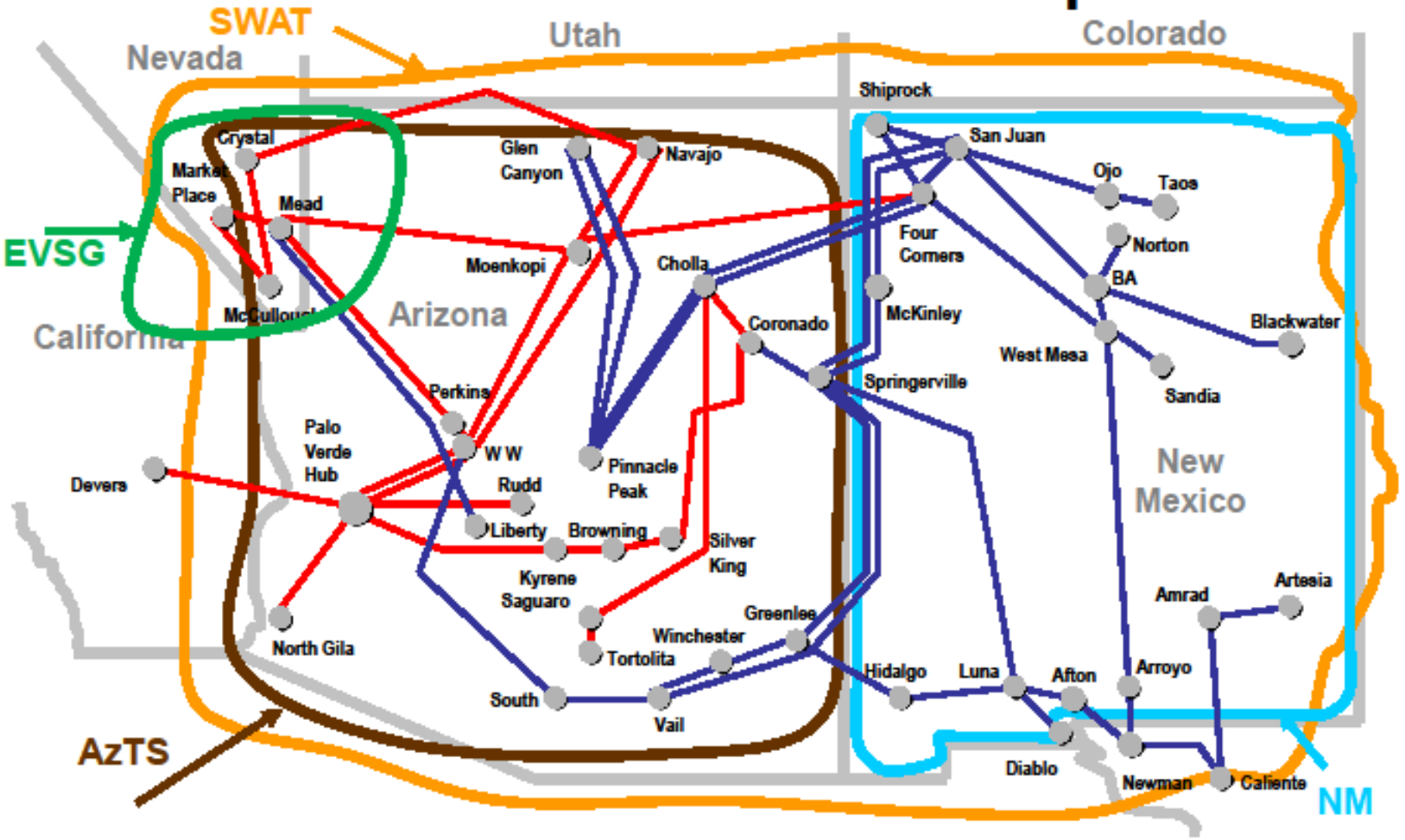
CCPG – http://www.westconnect.com/planning_ccpg.php

WestConnect – http://www.westconnect.com

SWAT FOOTPRINT



SWAT Subcommittee Footprints



SWAT	Southwest Area Transmission
AzTS	Arizona Transmission Subcommittee
NM	New Mexico Transmission
EVSG	Eldorado Valley Study Group

500kV
345kV

Footprint wide committees: Short Circuit, Transmission Corridor,

Web Sites

WestConnect: http://www.westconnect.com/

SWAT: http://www.westconnect.com/planning_swat.php

5/28/2013070670-2

SWAT Subcommittee Updates

- The CATS, CRT, and SATS subcommittees have been merged into the Arizona Transmission Subcommittee (AzTS)
- Kick-off Meeting was held on June 13th
- Major focus of meeting was to begin efforts to respond to upcoming ACC BTA requirements:
  - Ten Year Snapshot Study
  - Extreme Contingency Study
  - Any RMR Studies as needed based upon 7th BTA criterion
- Group is chaired by Ed Stoneburg, SWAT Vice-Chair

SWAT website information

- Information on SWAT can be found at the WestConnect website:
  - www.westconnect.com/planning.php
- WestConnect Site contains information about sub-regional planning groups within SWAT, planning calendars, and documents
- Chair: Patrick Harwood, Western
- Vice Chair: Ed Stoneburg, ACC Staff

SWAT & WestConnect Overview – FERC Order No. 1000

- Recent Actions:
  - February 21st – FERC Rejected filings from entities in the southeastern U.S. for failing to form a region of adequate scope.
  - March 22nd – WestConnect, MISO, and PJM found to partially comply and directed to make further compliance filings.
  - April 18th – CAISO and NYISO partially comply and are directed to make further compliance filings.
- WestConnect Participant Response:
  - There is quite a bit of interpretation among WC participants as to many of the FERC directives. One of the biggest items might be the "affirmative obligation to plan." FERC directed modification to this because they found that relying on WECC TEPPC studies to identify cost-effective and efficient solutions was not adequate.
  - For more information, see Ed Stoneburg's presentation entitled: Order No. 1000 Update, at the following link: http://www.westconnect.com/documents_results.php?categoryid=239

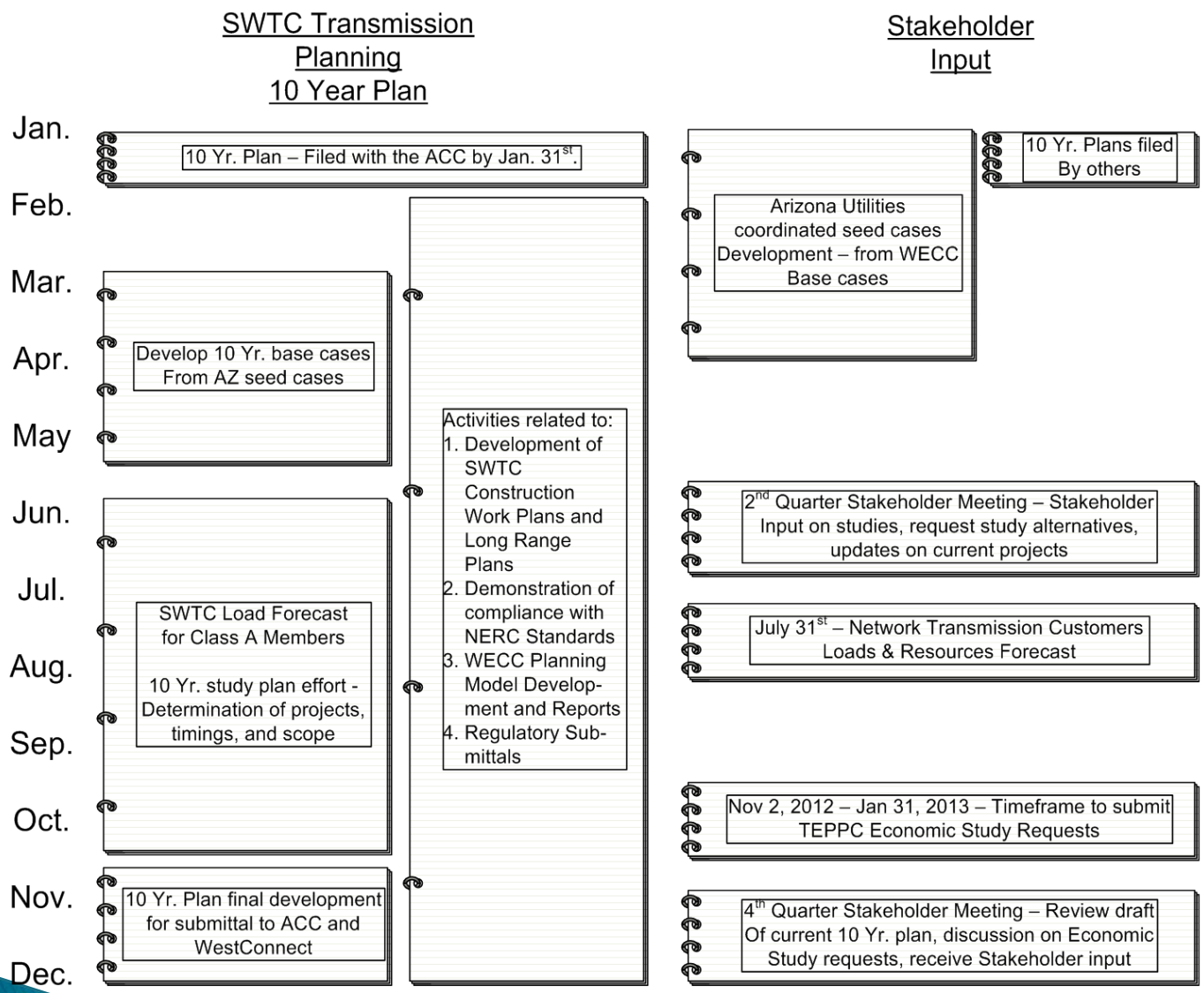
SWAT & WestConnect Overview – FERC Order No. 1000

- Interregional Filing:
  - FERC extended due date to July 10th.
  - WestConnect, CAISO and NTTG filed in early May
  - CAISO, Columbia Grid, NTTG and WestConnect developed common tariff language
  - A joint meeting of the four Planning Regions and their stakeholders will be held once per year, at a minimum
- Next Steps:
  - SWAT proposes to hold a webinar mid-July to review the WestConnect Order 1000 Planning Process details to look for opportunities for SWAT participation.

4. SWTC 2013 Study Update

- SWTC Planning Calendar & Methodology
- 2013-2022 Ten-Year Plan Review
- Interconnection Requests and Transmission Service Requests
- Economic Study Requests of SWTC
- Stakeholder comments/questions on study plan
- Stakeholder submittal of requests for additional transmission studies

Planning Calendar for Ten-Year Planning Cycle



Other Regional Coordination

Activities Throughout the Year:

1. Class A Operating Committee (CAOC) Meetings between SWTC and Class A Members – currently 3 times per year
2. WestConnect Meetings
   a. Steering Committee
   b. PMC
   c. IMC & Other Work Groups
3. SWAT Meetings
   a. Oversight Committee
   b. AzTS
   c. Short-circuit Working Group
4. ACC
   a. BTA
   b. Others

SWTC Planning Methodology

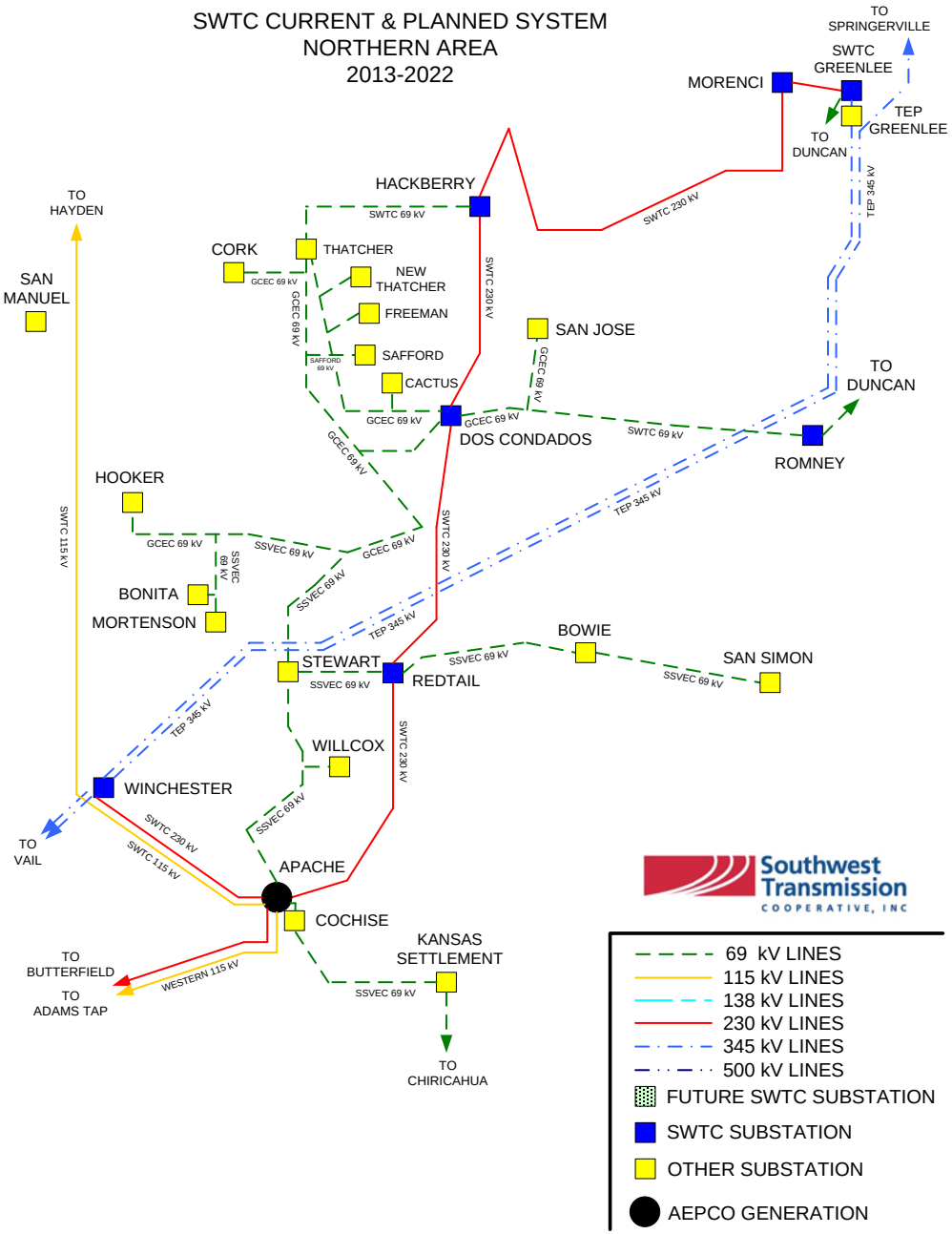
- NERC Planning Standards
- WECC System Performance Regional Business Practices
- Internal planning criteria
  - SWTC Planning Guidelines are posted on the SWTC OASIS at http://www.oasis.oati.com/swtc/

2013-2022 Ten Year Plan Review

- The 2013-2022 Ten Year Plan was submitted to the ACC on January 29, 2013. It contains several changes from last year's plan.
  - On-going discussions throughout the year at the Class A Operating Committee (CAOC) Meetings will necessitate minor changes to this plan.
  - As changes are approved by the SWTC Board, they will be incorporated into the next filing at WestConnect and the ACC.

Ten Year Plan Projects:

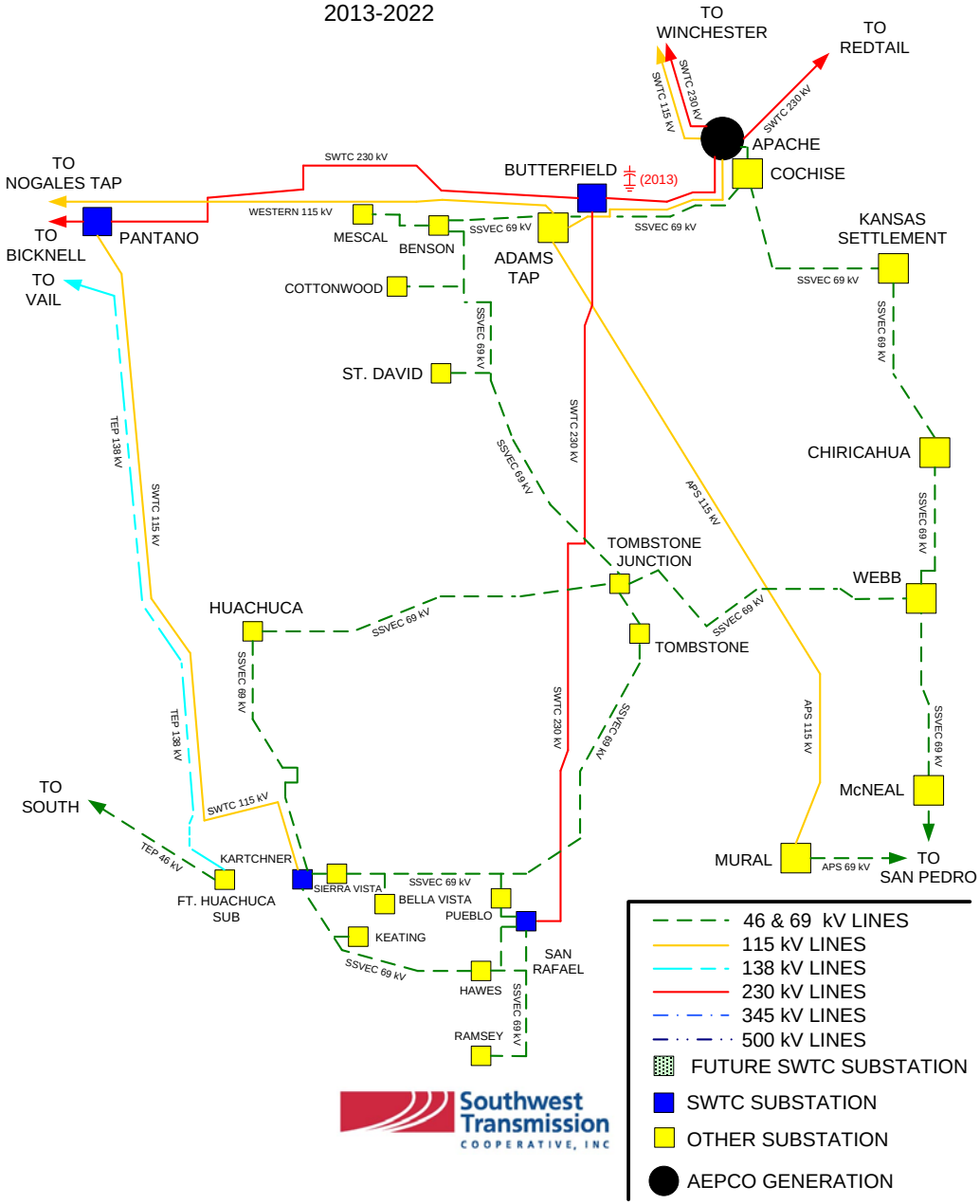
None



Ten Year Plan Projects:

2013 Add new Capacitor Bank at Butterfield

SWTC CURRENT & PLANNED SYSTEM
SOUTHERN AREA
2013-2022

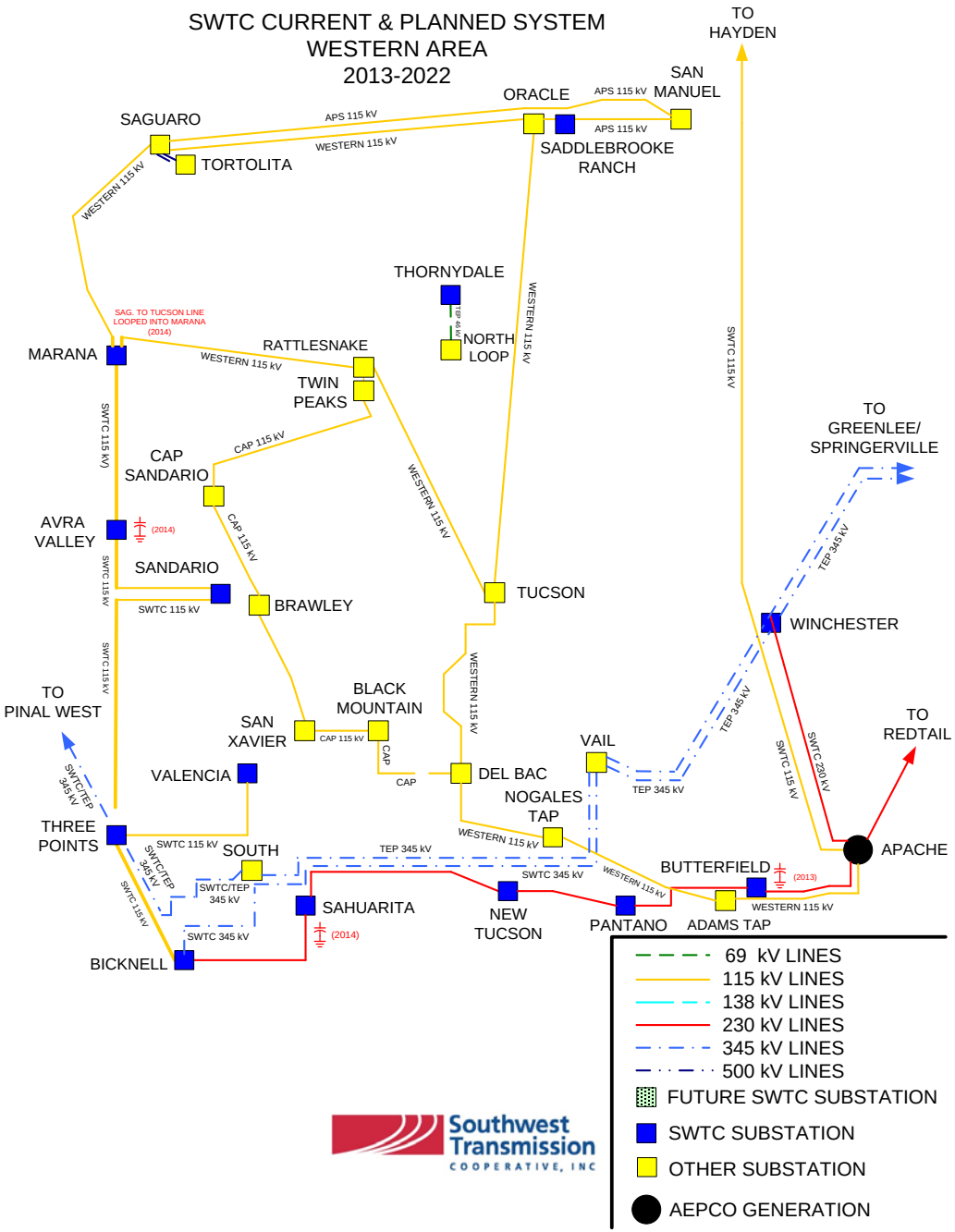


Ten Year Plan Projects :

2015 Saguaro to Tucson loop-in to Marana

2014 Move capacitor bank at Bicknell to Avra Valley

2014 Add new Capacitor Bank at Sahuarita



SWTC 2013 Studies – Interconnection & Transmission Service Requests

- Generation interconnection requests:
  - Pending (2)
- Transmission interconnection requests
  - None
- Currently involved in transmission study work with the following entities:
  - Tucson Electric Power Company
  - Western Area Power Administration

SWTC 2013 Studies – Economic Study Requests

- Currently no Economic Study Requests have been received by SWTC

SWTC 2013 Study Update – Stakeholder Comments on Study Plan

- Any Questions?

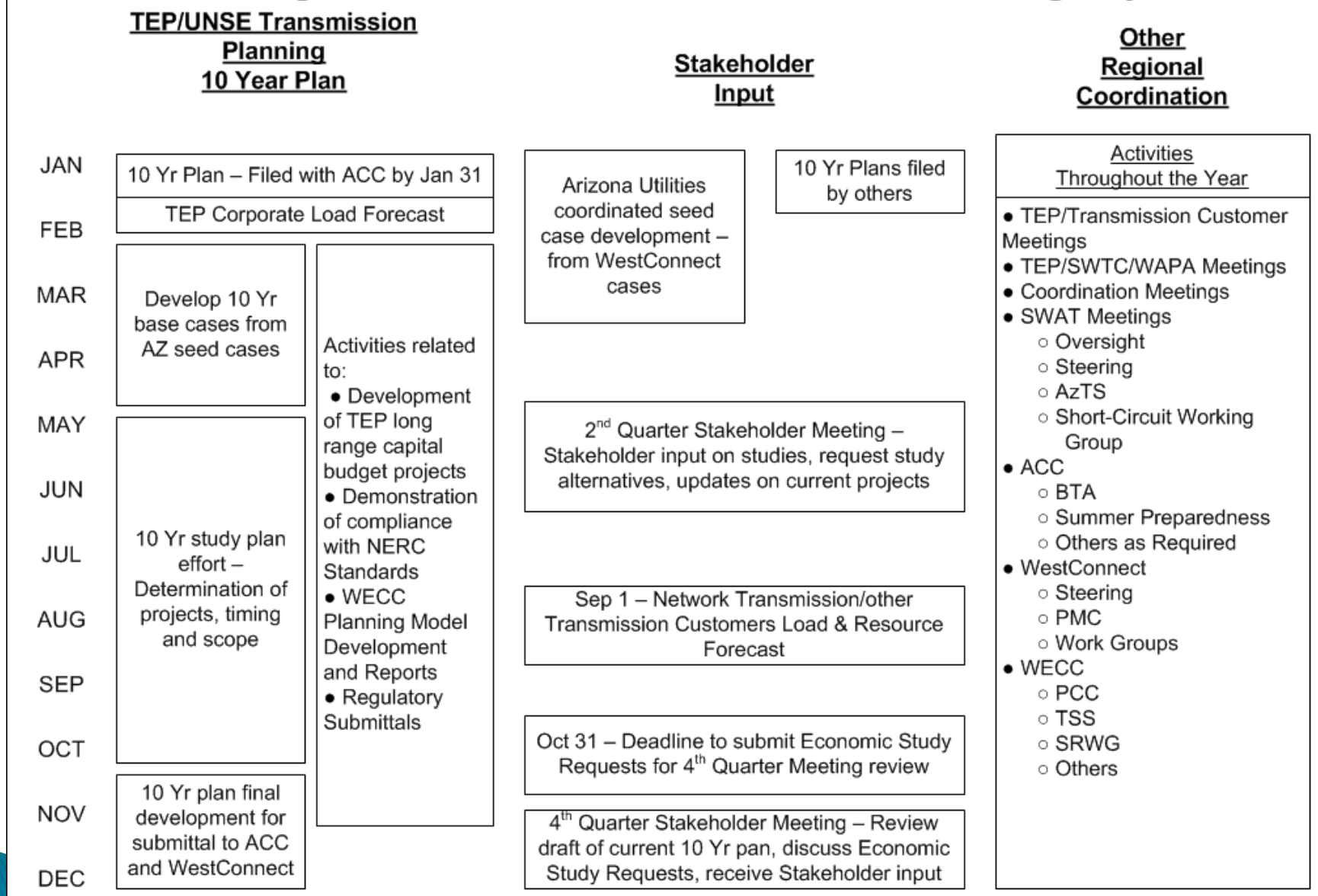
SWTC 2013 Studies – Stakeholder Submittal of Requests for Additional Transmission Studies

- Open Discussion
  - Stakeholder submittal of requests for additional transmission studies:
- Requests can be made at any time to:
- swtctransmission@swtransco.coop

5. TEP/UNSE 2012 Study Update

- TEP/UNSE Planning Calendar & Methodology
- 2013-2022 Ten Year Plan Review
- Interconnection Requests and Transmission Service Requests
- Economic Study Requests of TEP
- Stakeholder comments/questions on study plan
- Stakeholder submittal of requests for additional transmission studies

Planning Calendar for Ten-Year Planning Cycle



TEP Planning Methodology

- NERC Planning Standards
- WECC System Performance Regional Business Practices
- Internal planning criteria
  - TEP Planning Guidelines are posted on the TEP OASIS at http://www.oasis.oati.com/tepc/

TEP/UNSE 2012 Studies
Ten Year Plan

- 2013-2022 Ten Year Plan was submitted to the ACC on January 31, 2013
- Proposed 2013-2022 Ten Year Plan was submitted to WestConnect in December 2012

TEP 10 Year Plan (EHV System)

- Planned Projects
  - Series Capacitor Replacements (2015 – 2017)
    - Winchester – Vail 345kV Line at Vail (2015)
    - Springerville – Vail 345kV Line at Vail (2015)
    - Springerville – Greenlee 345kV Line at Greenlee (2017)
  - Pinal West – Pinal Central (2014)
  - Pinal Central – Tortolita (2016)
  - Tortolita 500kV Expansion (2015)

TEP 10 Year Plan (EHV System)

- Conceptual Projects (TBD)
  - Vail to Irvington 345kV
  - Irvington to South 345kV
  - Tortolita to Winchester 500kV
  - Vail to South #2 345kV
  - Springerville to Greenlee #2 345kV
  - Tortolita to South 345kV
  - Westwing to South #2 345kV

TEP 10 Year Plan (HV System)

- Planned Projects (2013 – 2014)
  - North Loop 138kV Reconfiguration
    - Phase 2 (2013) – in service
    - Phase 3 (2014)
  - Toro Switchyard (2014)
    - Loop-in of South – Green Valley 138kV
    - STATCOM
  - Rosemont 138kV Line (2014)
  - Duval CLEAR Switchyard (2013)
    - Canoa Ranch – Duval CLEAR 138kV Circuit Extension (2013) – in service
    - South – Cyprus 138kV Loop-in (2013) – in service
  - Tortolita – Rancho Vistoso reconfiguration to North Loop – Rancho Vistoso (2014)
  - DMP – Tucson 138kV Line (2014)
  - DMP – Northeast 138kV Reconductor (2014)

TEP 10 Year Plan (HV System)

- Planned Projects (2015-2017)
  - North Loop – Rillito 138kV Reconductor (2015)
  - North Loop – DMP 138kV Reconductor (2016)
  - Northeast – Rillito 138kV Reconductor (2016)
  - Craycroft-Baril Substation (2016)
    - Loop-in of Northeast – Snyder 138kV
  - Harrison Substation (2017)
    - Loop-in of East Loop – Roberts 138kV
  - Orange Grove Substation (2017)
    - Loop-in of La Canada – Rillito 138kV

TEP 10 Year Plan (HV System)

- Planned Projects (2018-2019)
  - Hartt Substation (2018)
    - Loop-in of Green Valley – Future Toro (2018)
  - Irvington – Tucson 138kV Transmission Line #2 (2018)
    - Loop-in at Kino Substation (2018)
    - Loop-in at UA Med Substation (2021)
  - Corona Substation (2019)
    - Loop-in of Irvington – South 138kV
  - Marana Substation (2019)
    - Loop-in of a Tortolita – North Loop 138kV circuit
  - Medina Substation (2019)
    - Loop-in of Midvale – South 138kV
  - UA TechPark Substation (2019)
    - Loop-in of Irvington – Vail 138kV #2

TEP 10 Year Plan (HV System)

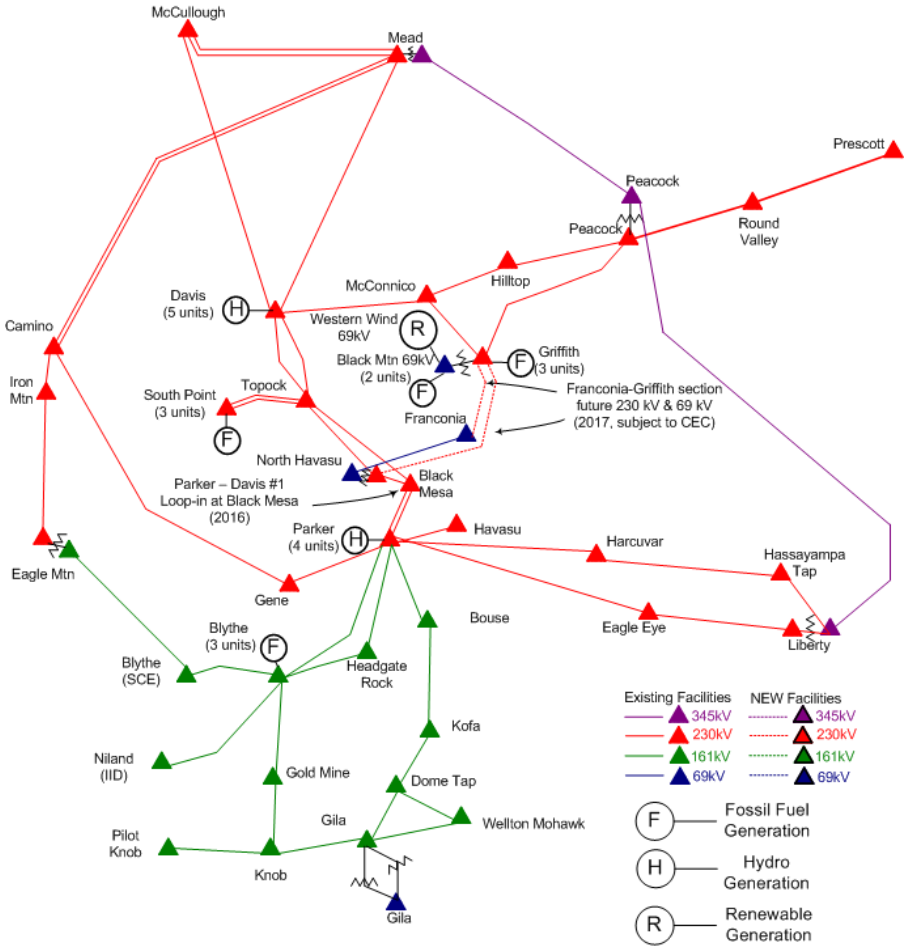
- Planned Projects (2020-2022)
  - Anklam Substation (2020)
    - Loop-in of DMP – Santa Cruz 138kV
  - Naranja Substation (2020)
    - Loop-in of North Loop – Rancho Vistoso 138kV
  - Spencer 138kV Substation (2020)
    - Loop-in of Midvale – Medina (future) 138kV
  - East Ina Substation (2021)
    - New Future Orange Grove – East Ina 138kV
  - Raytheon Substation (2021)
    - Loop-in of Future Median – South 138kV

TEP 10 Year Plan (HV System)

- Conceptual Projects
  - 138kV Capacitor Additions (2018-2022)
    - Locations, Size – TBD

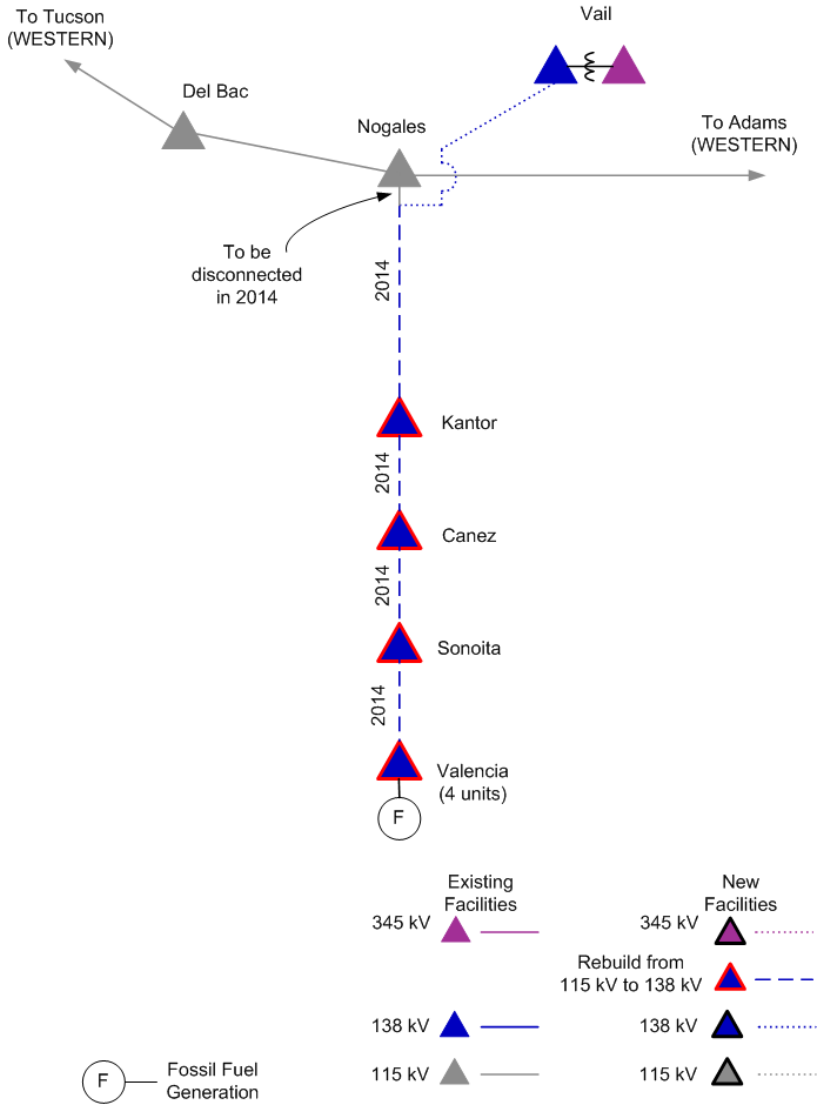
UNSE 10 Year Plan – Mohave County

1) Griffith-North Havasu Transmission Project (TBD)



UNSE 10 Year Plan – Santa Cruz County

1) Upgrade existing 115kV transmission line to Nogales (2014)



TEP/UNSE Interconnection & Transmission Service Requests

- Activity Since 4th Quarter Stakeholder Meeting
  - New Interconnection Requests – 0
  - Completed Feasibility Studies – 0
  - Completed System Impacts Studies – 1
  - Completed Facility Studies – 1
  - Projects Interconnected – 0
  - Interconnection Projects Withdrawn – 3
  - New Long-Term Firm Transmission Service Requests requiring SIS – 1
  - Long-Term Firm Transmission Service Requests Withdrawn – 1

TEP/UNSE 2012 Interconnection & Transmission Service Requests

Currently involved in scoping/feasibility study work for the following entities:

- Western Area Power Administration – DSW

TEP/UNSE 2012 Studies – Economic Study Requests

- Currently no new Economic Study Requests have been received by TEP

TEP 2012 Study Update – Stakeholder Comments on Study Plan

- Any Questions?

TEP 2012 Studies – Stakeholder Submittal of Requests for Additional Transmission Studies

- Open Discussion
  - Stakeholder submittal of requests for additional transmission studies

- Requests can be made at any time to:
  - Transcoord@tep.com

6. WECC Update

- December 2012 Board Meeting:
  - Passed a resolution to pursue the bifurcation of WECC.
  - Under this new structure, the Reliability Coordinator and Interchange Authority registered functions will become a separate company from WECC.
  - When established, the Reliability Coordination Company (RCCo) will provide core and other associated reliability coordination services within the Western Interconnection.
  - WECC, as the regional entity, will continue to perform duties as delegated through the NERC/WECC delegation agreement.
- May 22nd RCCo IBC Webex:
  - During its March meeting, the WECC Board elected a three-member Interim Board Committee (IBC) for the RCCo. The IBC, which reports to the WECC Board, provides oversight for those functions within WECC that will become part of the RCCo following bifurcation.
  - The Board endorsed the amended draft Bylaws on the Webex which were posted on the WECC website on May 28th.

WECC Update, Cont.

- May 22nd Special Board Webex:
  - Objective was to review proposed amendments to the WECC bylaws and to hear comments from interested stakeholders.
  - Balance of the meeting focused on resolving outstanding issues around the alternative language that has been offered by stakeholders on certain sections of the bylaws. The Board discussed proposed language in detail, took public input, and decided upon the content for the remaining Bylaws sections.
  - In addition, it was agreed that the May 24th deadline for entities registering their intent to join the RCCo will be extended until June 6th

WECC Update, Cont.

- Next Steps:
  - Another special WECC Board Meeting to be held to focus on hearing more detailed information about the themes raised during the Regional Outreach meetings.
  - WECC will issue the full slate of candidate directors for WECC candidates for the MACs of WECC and the RCCo.
  - June 27th – Annual Meeting in San Diego, CA. WECC Member Representatives will vote on the following:
    - WECC Bylaws Amendments
    - WECC Member Class Directors
    - WECC Non-Affiliated Directors
  - January 1, 2014 – all necessary Board and regulatory approvals to be obtained so that the RCCo will be operating as a standalone organization, no longer affiliated with WECC.

Transmission Expansion Planning & Policy Committee (TEPPC)

- TEPPC Study Request Window closed on January 31, 2013.
- March 14, 2013 WECC Board Meeting
  - TEPPC proposed an annual budget of $2.5 million to enable TEPPC to continue its existing and ongoing activities beyond DOE funding.
- Focus of recent work is finalizing 2013 plan (scheduled for approval in August). There will be a stakeholder comment period on the plan May 31st – June 14th and public comment period July 1st – July 15th. Plan includes 10 production cost model case reports, reports from 20-year Long Term Planning cases, 20-year scenario analysis, WECC Path reports and numerous other reports.
- May 22-23 TEPPC Quarterly Meeting:
  - A discussion was held on the technical observations, potential messages, and recommendations for the 2013 interconnection-wide Transmission Plan. A draft has been released for comment.
  - TEPPC 2013 Study Program was approved and is available on website.
- Information can be found at the following link: www.wecc.biz/committees/BOD/TEPPC/default.aspx

Scenario Planning Steering Group (SPSG)

- February 12, 2013 SPSG Quarterly Meeting:
  - Discussion revolved around WECC scenario narratives and agreed to defer consideration of structural changes until after seeing the modeling results.
- Final Draft of WECC Scenario Report is posted on WECC website. It will be an Appendix to 2013 20-year Transmission Plan.
- May 21-22, 2013 Meeting:
  - Approved the report of the EDTF as an appendix to the 2013 Transmission Plan
  - Reviewed the results of scenario-based study cases recently completed by WECC Staff. WECC Staff reviewed comments in preparation for the May 31st release of the 2nd draft of 2013 Transmission Plan.
- Information can be found at the following link: www.wecc.biz/committees/BOD/TEPPC/SPSG/default.aspx

Environmental Data Task Force (EDTF) Update

- April 25th – 26th Meeting:
  - Met to revise draft content for WECC 2013 Plan, review new and updated data sets received through its Open Biennial Process to solicit environmental and cultural data sets, and receive updates on EDTF cultural resources pilot project.
  - Decided to incorporate a conservation easement data set into its data layer and risk classification category system.
  - Continuing to identify Canadian entities with access to and knowledge of Canadian environmental and cultural resource data sets to finalize Canadian environmental and cultural data sets and risk classification categories.
- May 21st Meeting:
  - Approved the EDTF's input for the 2013 Transmission Plan.
  - Updates received on ongoing environmental mitigation cost evaluations.
- Information can be found at the following link: www.wecc.biz/committees/BOD/TEPPC/SPSG/EDTF/default.aspx

Subregional Coordination Group (SCG) Update

- Working on a draft version of a revised charter.
- Finalized the Common Case Transmission Assumption (CCTA) questions for 2024. Staff will initiate the update with project developers and will incorporate the questions into the Project Information Portal
- Next meeting is tentatively scheduled for July 1st.
- The documents can be found at this link: www.wecc.biz/committees/BOD/TEPPC/SCG/default.aspx

7. Stakeholder Questions/Comments

- Open discussion

8. Action Items

- Review of action items

- A status update of the action items to be provided during 2013 4th Quarter Stakeholder Planning Meeting