



WATS Task Force

STEP Meeting
January 17, 2003

WATS Task Force

- Western Arizona Transmission Studies

Purpose

Projects

Meetings

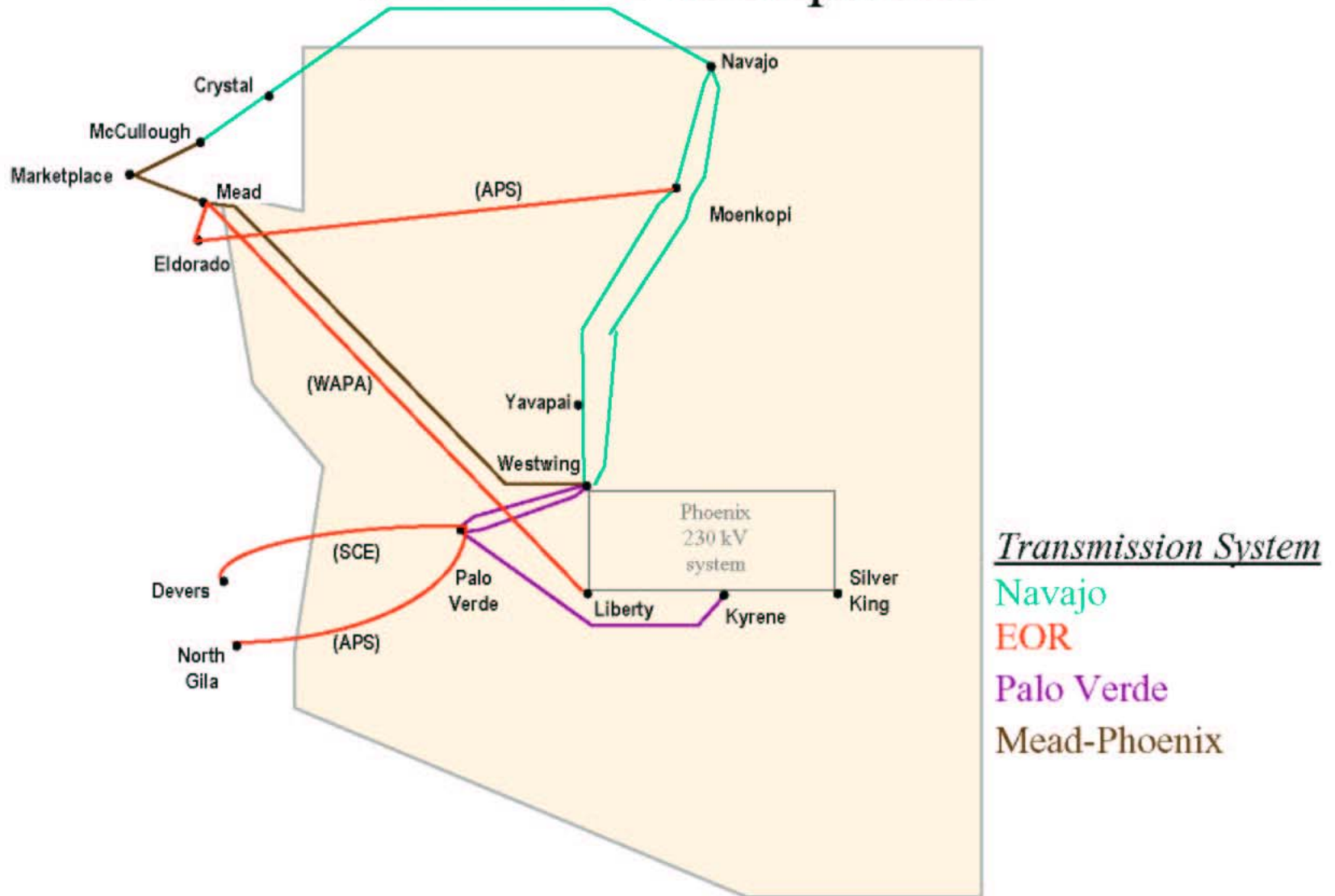
WATS Task Force

- Purpose
 - Provide Technical Planning and Operating Studies Group for the following:

WATS Task Force

- WATS reports to these E & O:
 - Palo Verde
 - Mead – Phoenix
 - Navajo
 - EOR

Arizona EHV Transmission with SRP Participation



WATS Task Force

- Navajo
 - Interconnection Process

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- Palo Verde
 - Interconnection Procedure
 - Preliminary Study Plan 30 days
 - Preliminary Study 60 days
 - Detailed Planning Study 180 days
 - WECC Peer review

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- Mead –Phoenix
 - Interconnection Procedure
 - Similar to PV interconnection
 - Ad hoc Review instead of WATS
 - WECC Peer Review includes WATS

WATS Task Force

- System Definitions & Members

WATS Task Force

- Navajo Transmission System
 - Navajo – Crystal – McCullough
 - Navajo – Westwing lines
 - Moenkopi – Eldorado
- Members
 - APS, LADWP, SRP, NPC, WAPA/Bureau, TEP

WATS Task Force

- Mead – Phoenix Project
 - Westwing – Mead 500kV Line
 - Perkins PSTs
 - Mead – Marketplace 500kV Line
- Members
 - WAPA, SRP, APS, LADWP, 9 CA Cities

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- PV & ANPP

- ANPP – PNM, EPE, SRP, APS

- Palo Verde – Westwing #1 & #2 50kV Line
 - Palo Verde – Kyrene 500kV Line
 - Kyrene 500kV Substation
 - Palo Verde 500kV Substation

- PV

- Palo Verde – Devers 500kV Line
 - Palo Verde – North Gila 500kV Line

SCE

SDG&E, IID, APS

- Palo Verde Plant

WATS Task Force

- Palo Verde Interconnection Procedure
 - WATS Task Force for
 - Palo Verde – Westwing #1 & #2
 - Palo Verde – Kyrene
 - Kyrene 500kV substation
 - Palo Verde 500kV substation
 - Procedures of Operating Agent for: (EOR)
 - Westwing 500kV substation APS
 - Palo Verde – North Gila APS
 - Palo Verde – Devers SCE

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- East of River
 - Palo Verde – Devers 500kV
 - Palo Verde – North Gila 500kV
 - Moenkopi – Eldorado 500kV
 - Liberty – Mead 345kV

WATS Task Force

- Current Projects
 - Centennial Plan
 - Jojoba – Pinal West 500kV Interconnection
 - Hassayampa – Jojoba 500kV #2
 - Allegheny Generation Interconnection
 - Sempra Capacitor Upgrades

WATS Task Force

- Centennial Plan

Centennial Plan

HISTORY

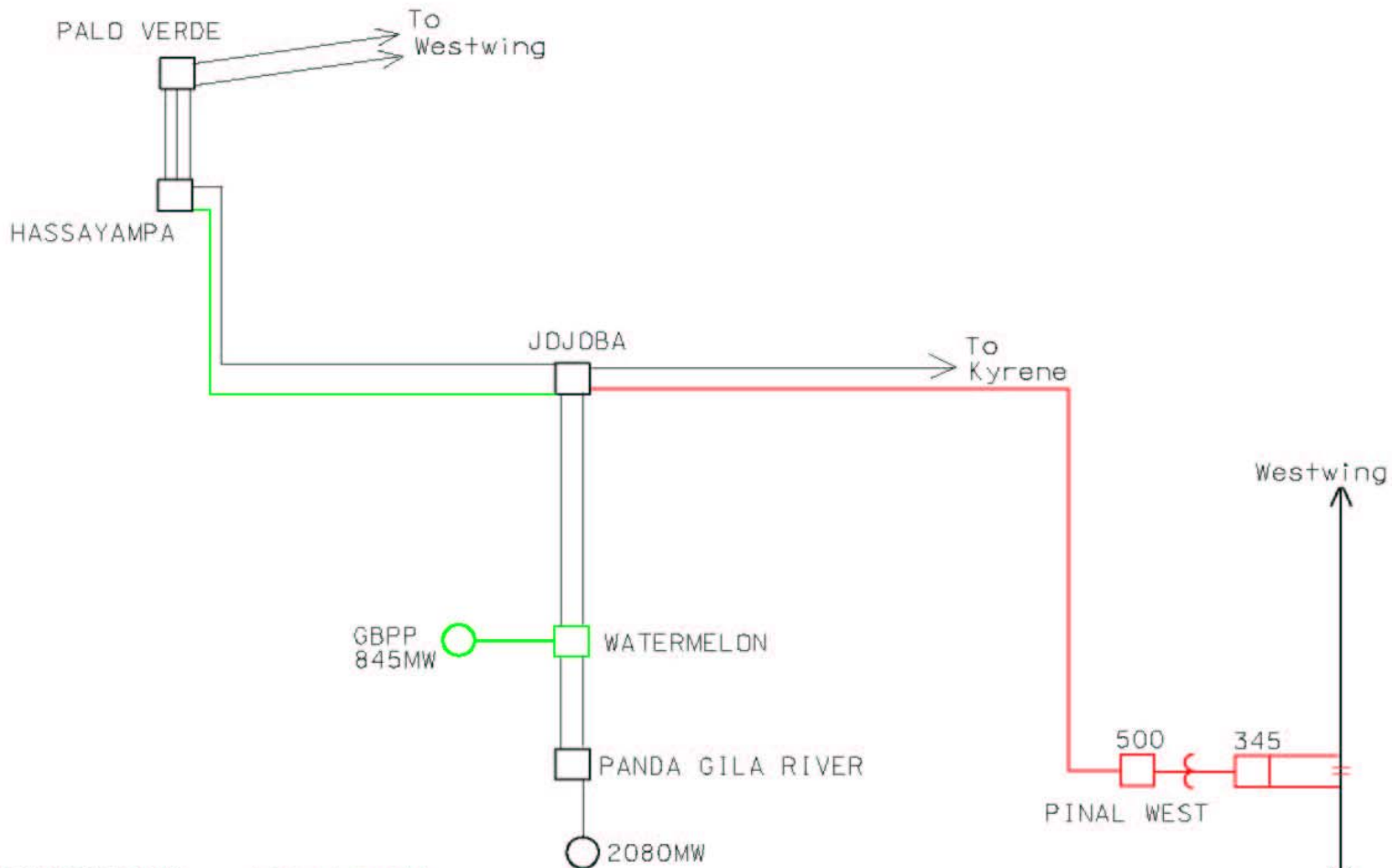
- The Centennial Plan was developed to accommodate up to 3,000 MW of transmission service requests into the NPC, Eldorado Valley (Mead, Marketplace, Eldorado) and Navajo transmission systems.
- The plan incorporates three new 500 kV transmission lines, two new 500 kV switchyards, and new or upgraded facilities at four regional 500 kV switchyards (Crystal, Mead, McCullough, Eldorado).
- Two of the 500 kV transmission lines interconnect to regional substations (Crystal, Mead).

Centennial Plan

CENTENNIAL IPP UPDATE

- Mirant (550 MW) is on schedule for commercial operation by March 1, 2003 and starts testing December 2002.
- GenWest (590 MW) is on schedule for commercial operation by April 1, 2004 and starts testing February 2004.
- **Duke's (1200 MW) plant has been formally put on hold. Construction has stopped at approximately 70% complete.**
- **Reliant's (500 MW) expected commercial operation date is still to be determined.**
- **Calpine's (900 MW) expected commercial operation date is still to be determined.**

JOJOBA - HASSAYAMPA & JOJOBA - PINAL WEST PROJECTS



NEW LINE INTERCONNECTIONS

- 1. Jojoba - Pinal West
- 2. Jojoba - Hassayampa

Line Length

- 27 to 40 miles
- 23 miles

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- Allegheny Generation Interconnection
 - Study Plan presented at October WATS
 - 1260MW of generation
 - Loop in of Palo Verde – Devers circuit
 - 38 miles west of Palo Verde

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- Sempra sponsored studies
 - Potential benefits of upgrading:
 - Series comp on Hassayampa – North Gila – Imperial Valley 500kV line
 - Series comp on Palo Verde – Devers 500kV line
 - Allows increase in EOR flow of 760MW iff:
 - Navajo – Crystal 500kV series comp is also upgraded
 - Devers 500/230kV transformer upgraded