



Southwest Transmission Expansion Plan

STEP

Presentation to CREPC

Jeff Miller

California ISO

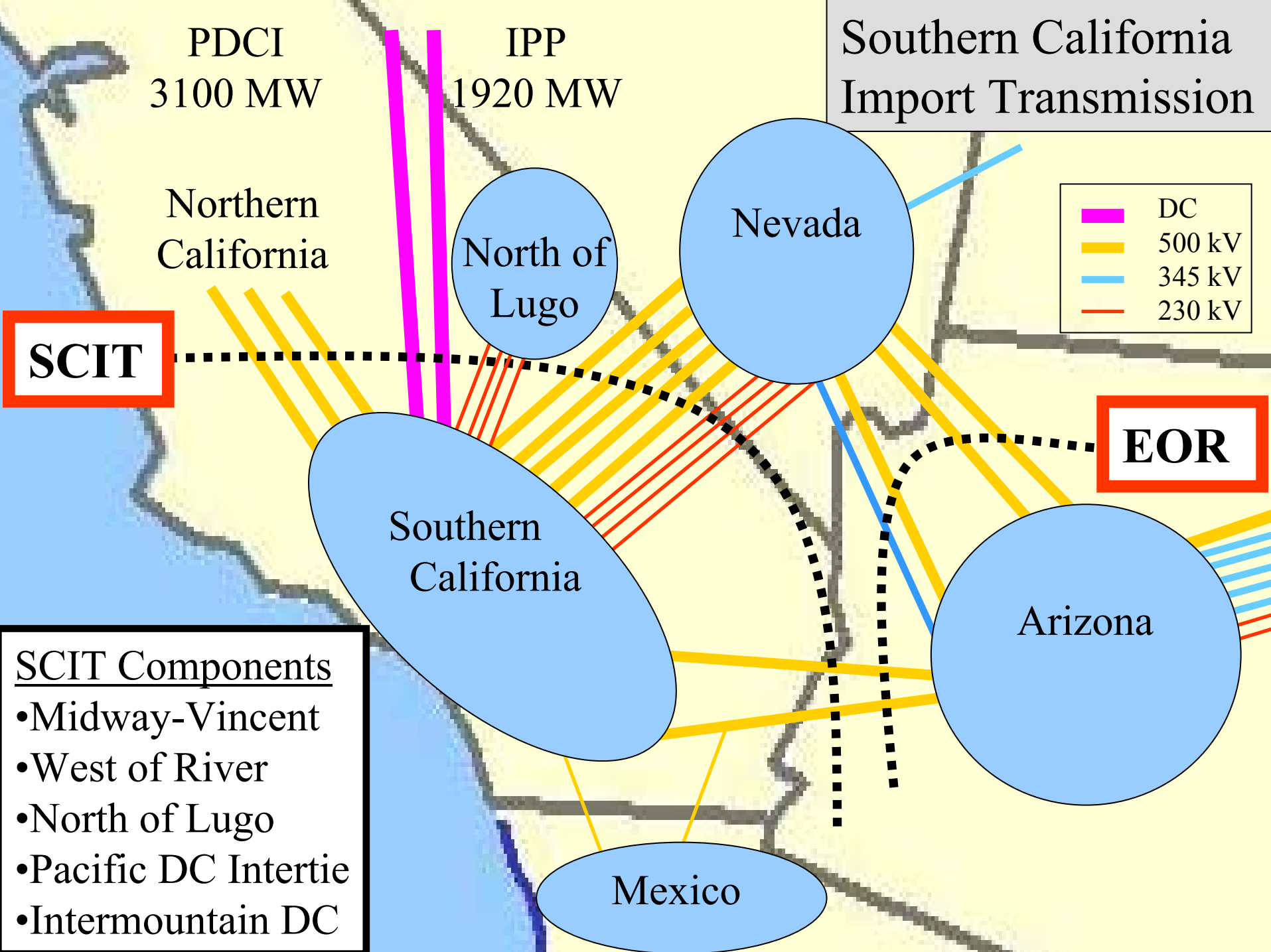
March 26, 2004



STEP Develops a Broad Regional Consensus

- Different entities have different concerns
 - Generation Companies
 - Transmission Owners
 - Permitting Agencies
 - Landowners
 - Environmental groups
- STEP provides a common forum to develop a common vision for all of these entities
- Broad support facilitates project implementation





PDCI
3100 MW

IPP
1920 MW

Southern California
Import Transmission

Northern
California

North of
Lugo

Nevada

█	DC
█	500 kV
█	345 kV
█	230 kV

SCIT

EOR

Southern
California

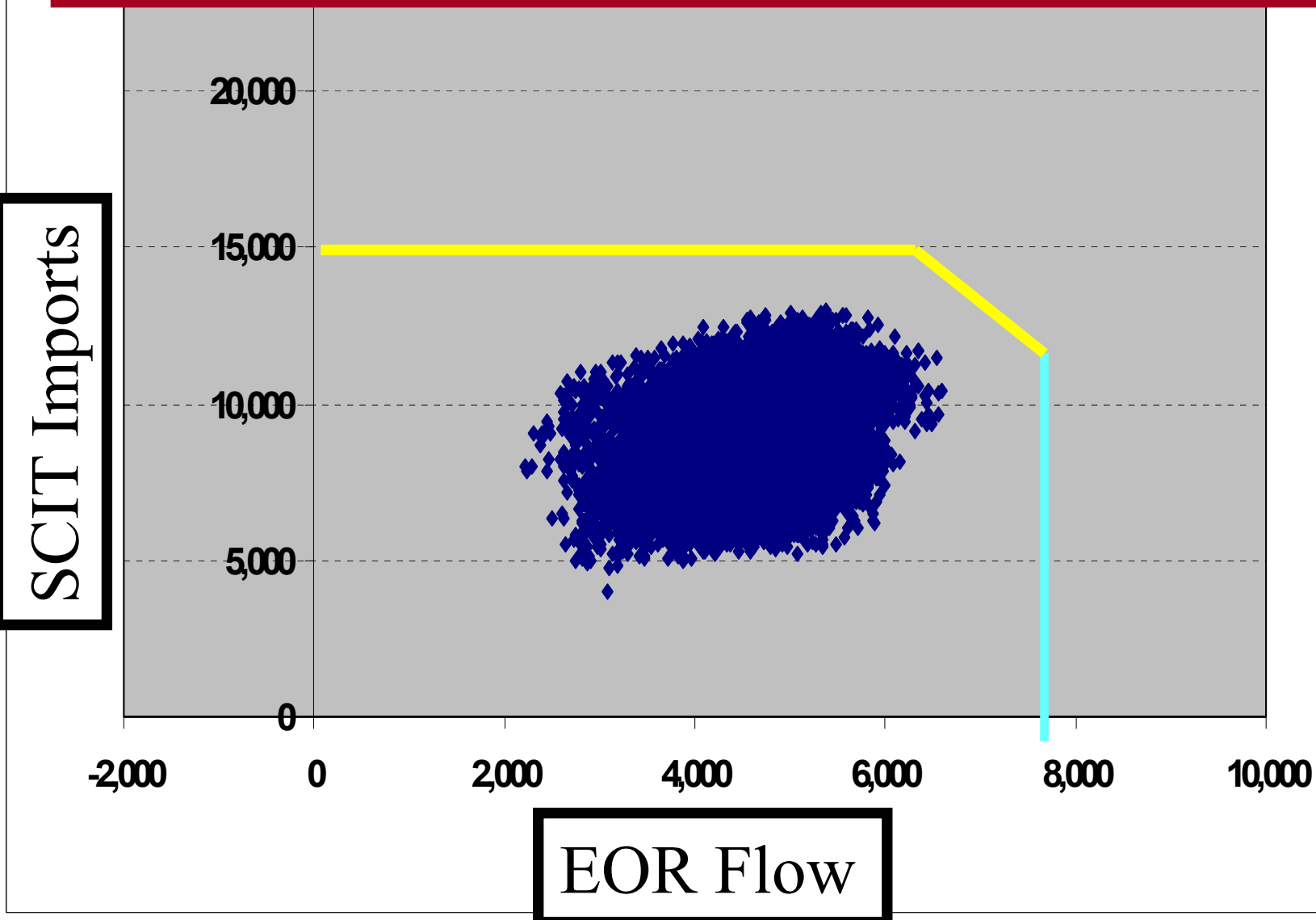
Arizona

Mexico

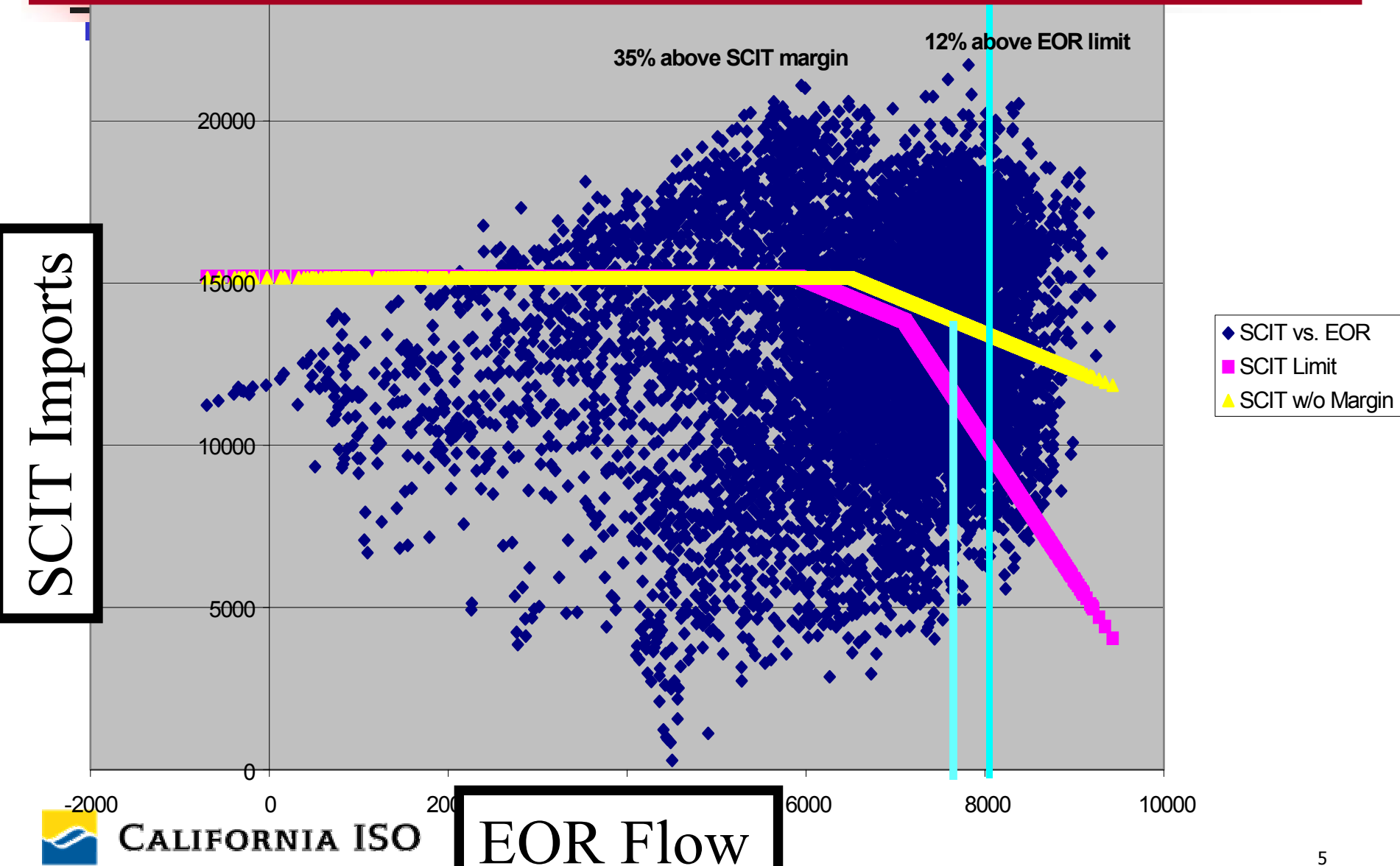
- SCIT Components
- Midway-Vincent
 - West of River
 - North of Lugo
 - Pacific DC Intertie
 - Intermountain DC

Actual System Data

(3/1/03 to 3/1/04 - Approximate Maximum SCIT Limits Shown)



2008 Simulation - Unconstrained



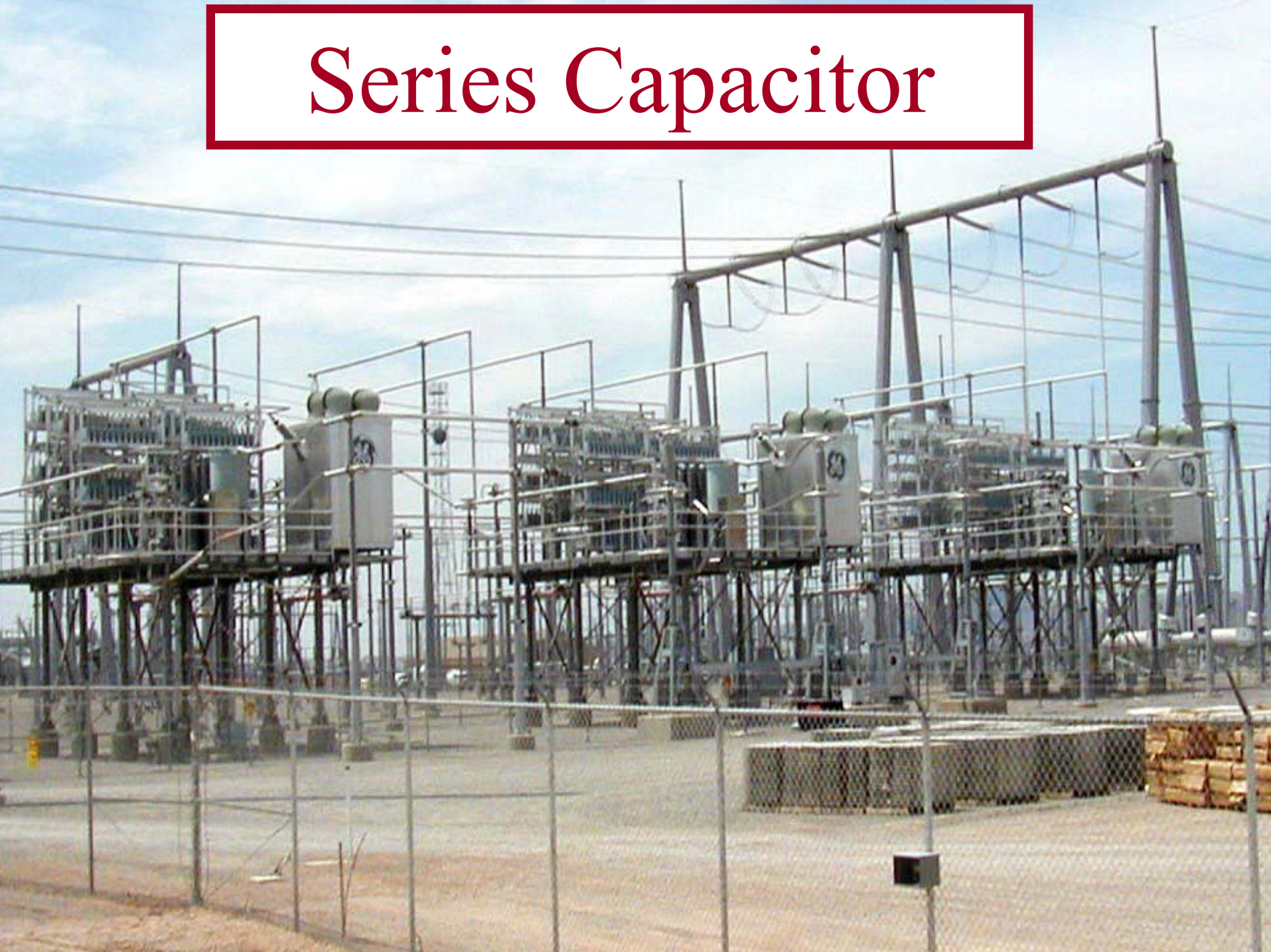


STEP Transmission Plan

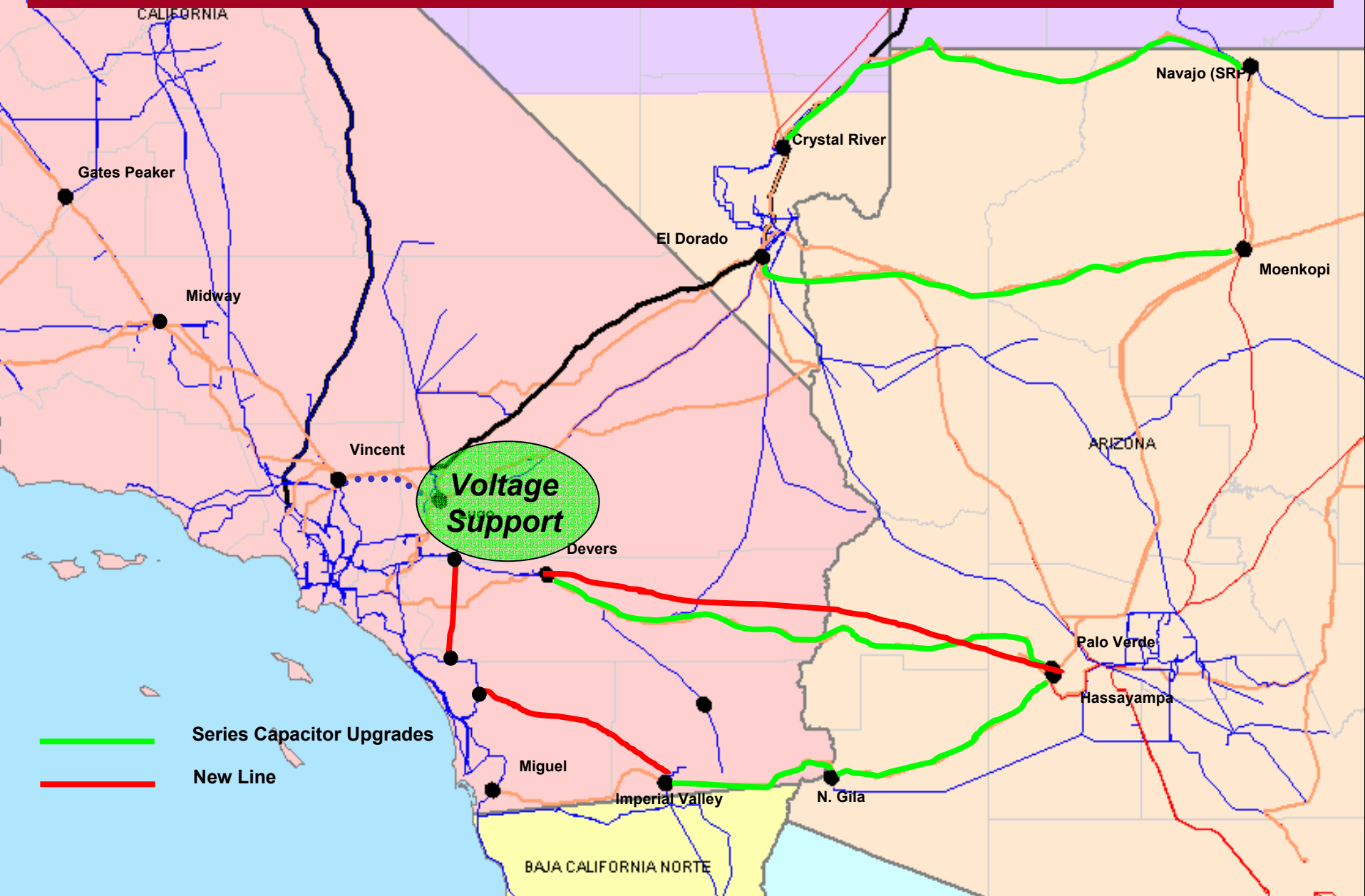
- 1) Short-term Upgrades – Series capacitor upgrades, second Devers 500/230 kV transformer, and voltage support.
- 2) Palo Verde-Devers #2 500 kV Line
- 3) New 500 kV line into San Diego



Series Capacitor



Current STEP Transmission Plan





Current Focus

- Get short-term improvements moving
- Develop longer term studies (10 years out instead of 5)
- Improve coordination with SSG-WI and other subregional groups (i.e., SWAT, NTAC, RMATS)
- Improve modeling techniques



A map of the United States with state boundaries outlined in black. The map is set against a light blue background. The text "Questions ?" is overlaid in the center of the map.

Questions ?

A blue oval with a fine grid pattern, containing the word "STEP" in red, italicized, bold letters. The oval is positioned in the lower-left quadrant of the map.

STEP