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Overview of the DPV2 Project

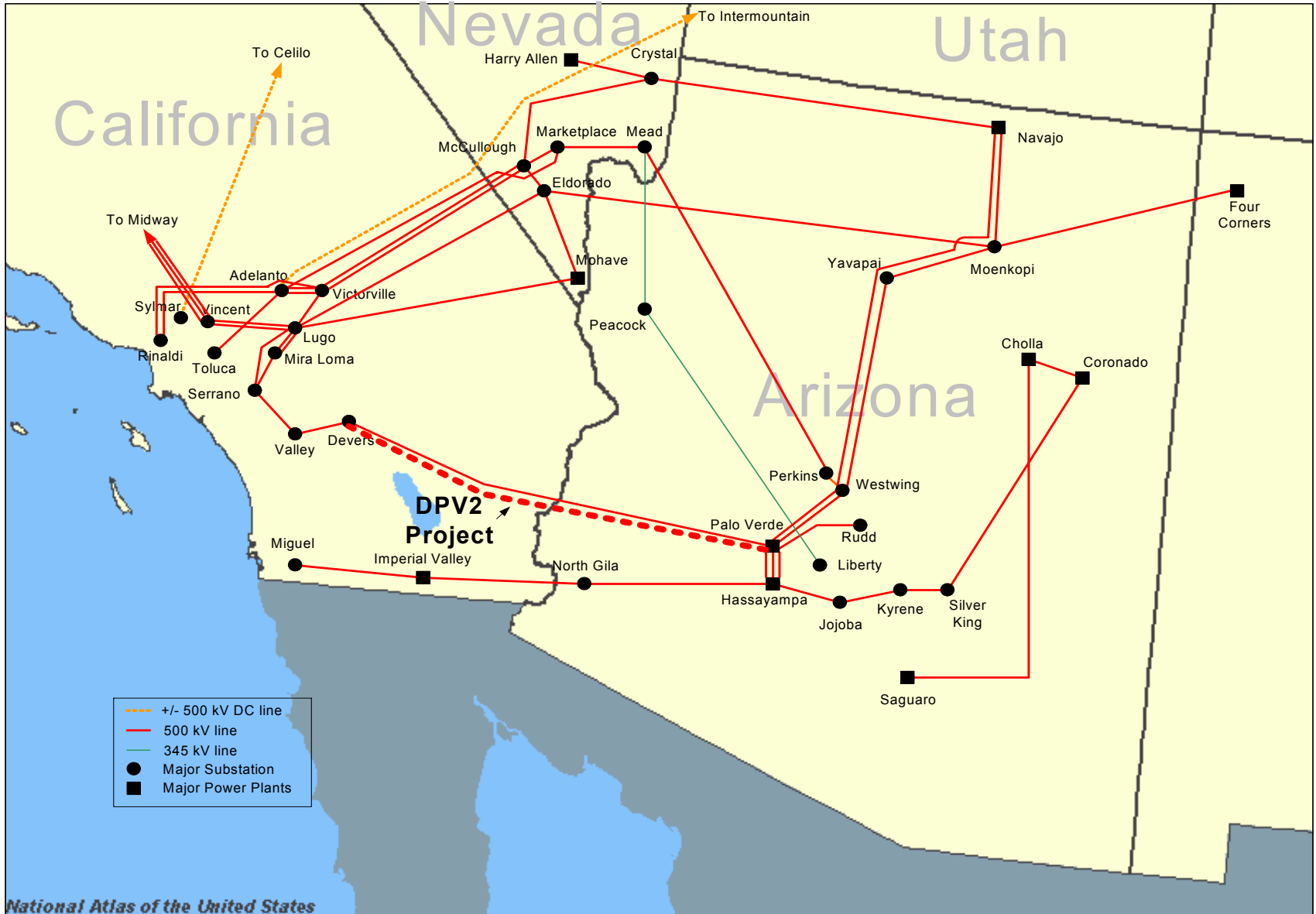
Stakeholder Meeting 1/14/2005

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Grid Planning
California ISO**



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National Atlas of the United States



Plan of Service

- Construct a new 230 mile Devers-Harquahala 500 kV line
 - 2B-2156 ACSR conductor
 - Series compensation that matches the existing PV-Devers 500 kV line
- Rebuild and re-conductor 4 230 kV lines west of Devers
 - 2B-1033 ACSR conductor
 - Devers-San Bernardino 230 kV #1 and #2 lines
 - Devers-Vista 230 kV #1 and #2 lines
- Replace and upgrade circuit breakers
 - Replace 11 CBs at Devers 230 kV
 - Replace 2 CBs at Lewis 230 kV
 - Upgrade 4 CBs at SONGS 230 kV



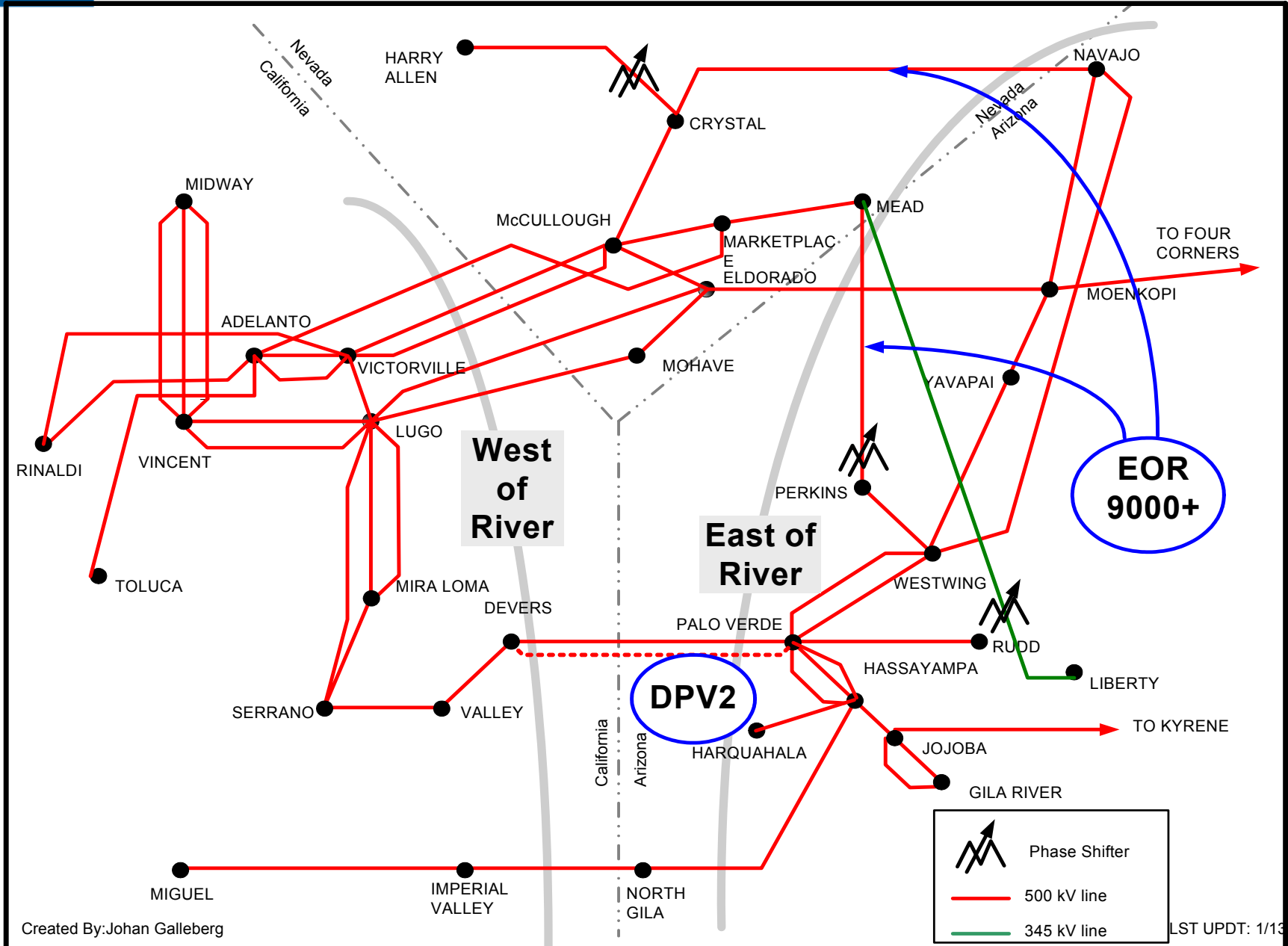
Plan of Service cont.

- Install Special Protection System (SPS)
 - To meet N-2 reliability criteria for loss of DPV1 and DPV2 500 kV lines
 - Trip 900 MW of generation in Palo Verde/Harquahala area
 - Drop 900 MW load at Padua and Villa Park 230 kV substations
 - Provide telecommunications for the SPS and the protection systems
- Install two 388 MVAR Static Var Compensators (SVC)



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EOR 9000 + Project

- Upgrade the series capacitors on the Navajo – Crystal 500 kV line
- Upgrade the series capacitors on the Perkins – Mead 500 kV line
- Bypass the existing phase-shifters on the Perkins – Mead 500 kV line

Based on the economic study results up to this point it may be reasonable to assume that also the series capacitors on the Moenkopi – Eldorado 500 kV line will be upgraded.



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Questions ?