

Pinal South - Tortolita Study

Presented to
SWAT Oversight Committee
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TEP Transmission Planning



A UniSource Energy Company

In A New Light

Background

- ☀ Project is needed to serve growing load in the Tucson area
- ☀ Project is needed no later than 2012
- ☀ Compare 2 projects to determine benefits to TEP
 - Pinal South – Tortolita 500 kV
 - Pinal West – Tortolita 500 kV
- ☀ TEP will be pursuing the Pinal South option

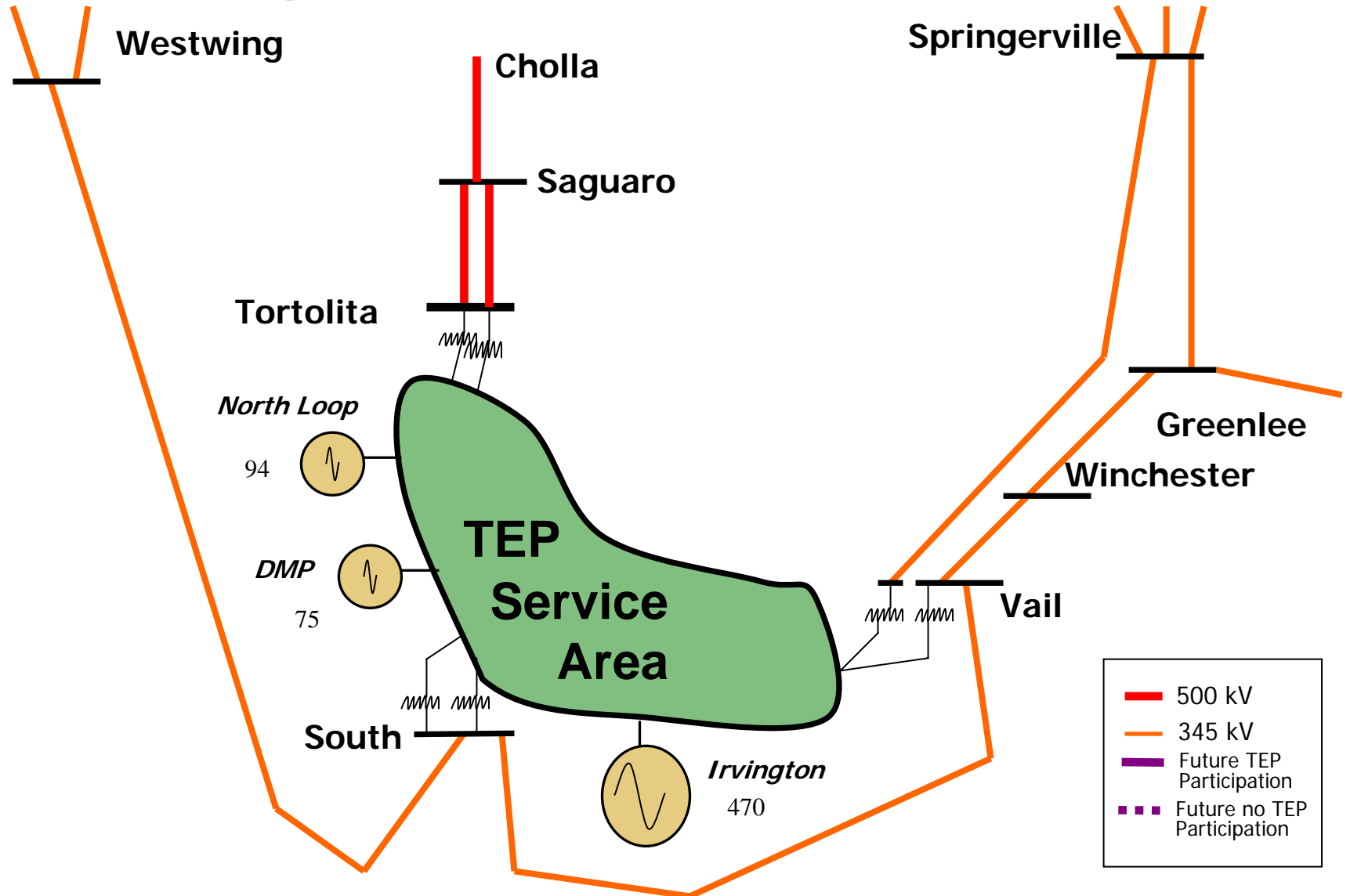
Pinal South - Tortolita

- ☀ Approximately 30 miles
- ☀ Build 500 kV yard at Tortolita
- ☀ Participate in 500 kV switchyard at Pinal South
- ☀ Participate in Pinal West – Pinal South portion of Pinal West – Southeast Valley project

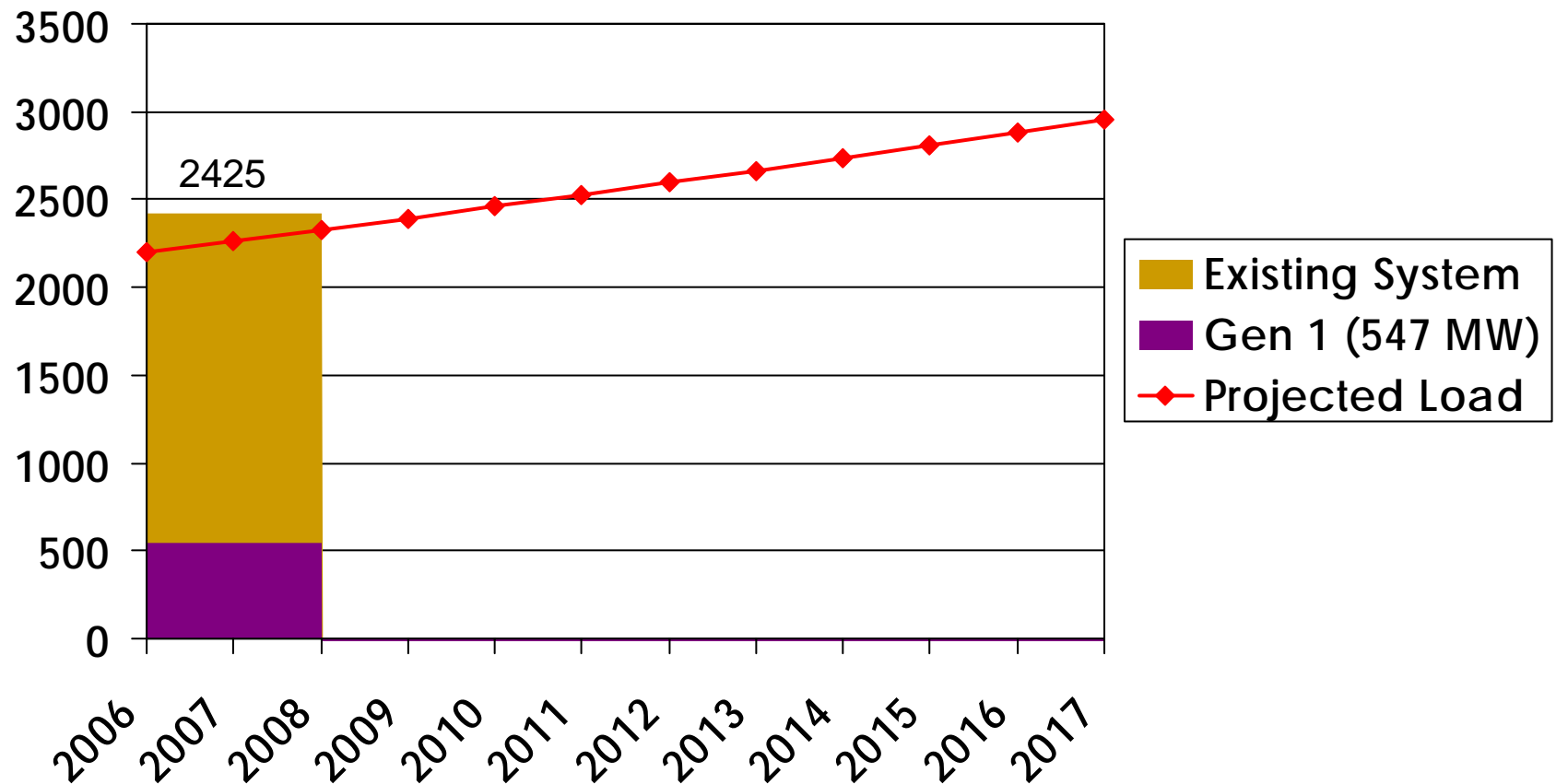
System Improvements

- ☀ Install a 3rd 500/138 kV transformer at Tortolita
- ☀ Build new Tortolita – Rillito 138 kV line in TEP's service territory
- ☀ Upgrade TEP's Rillito – Northeast 138 kV line

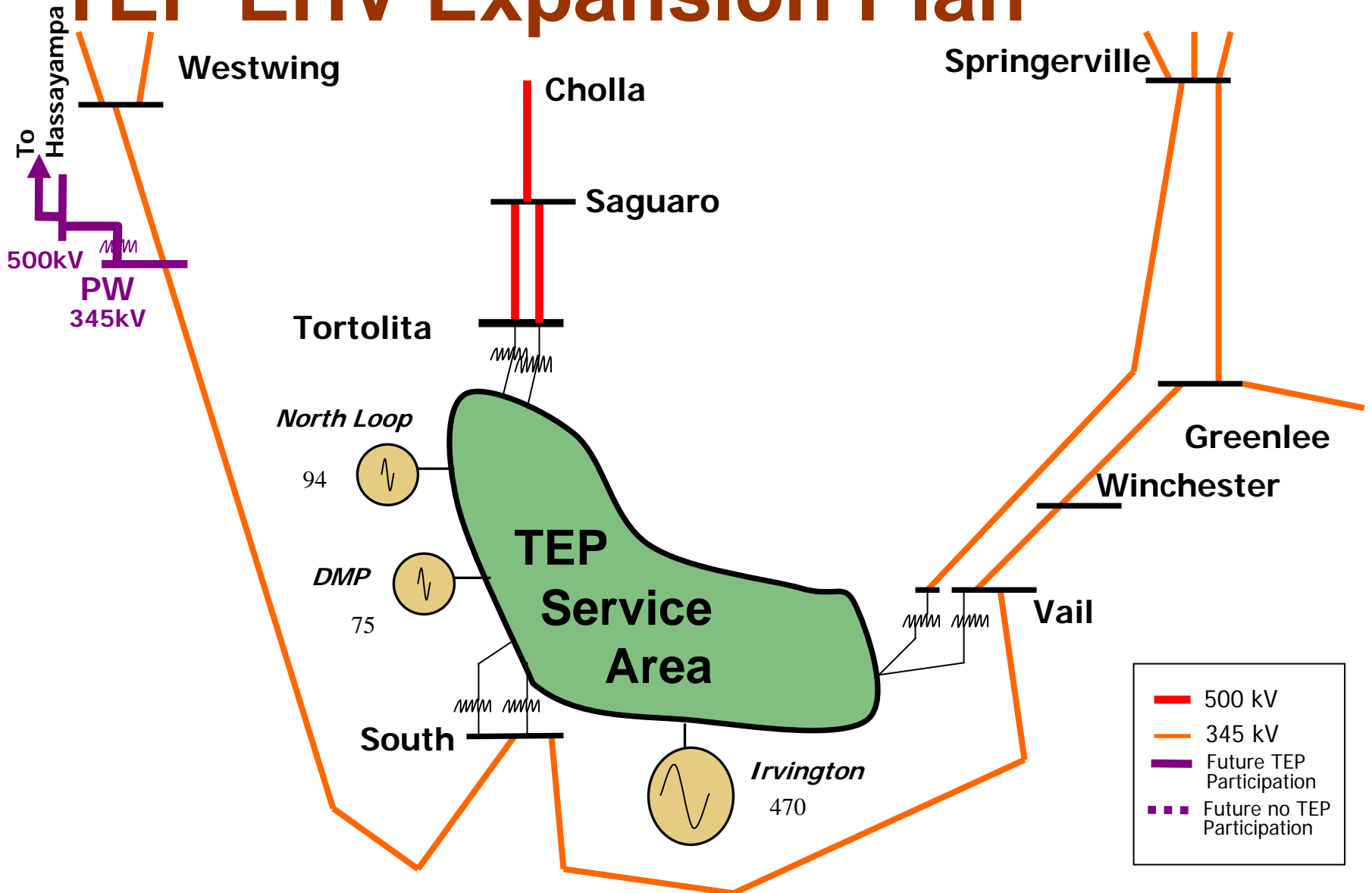
Existing Transmission System



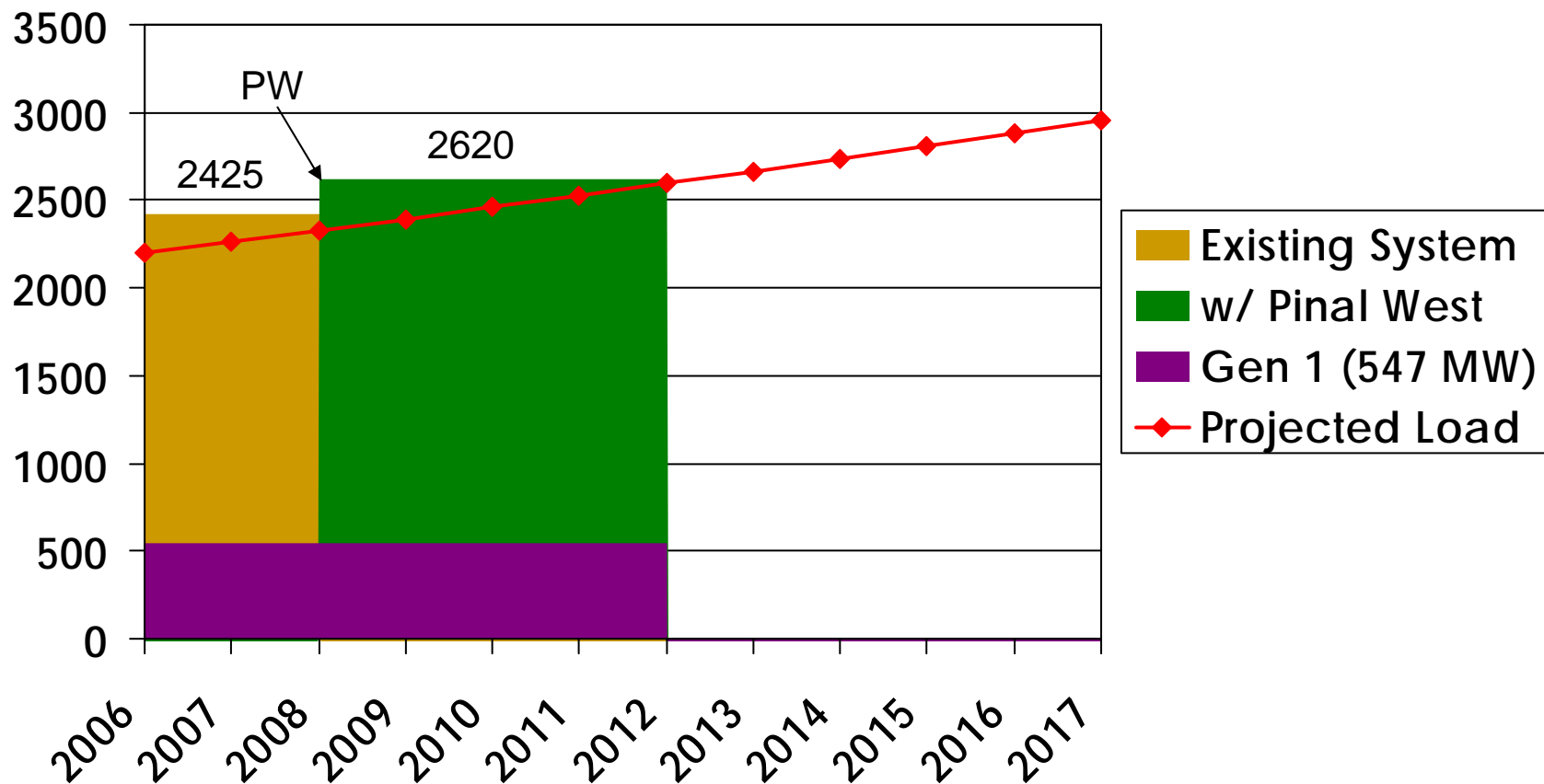
Forecasted Load vs. MLSC



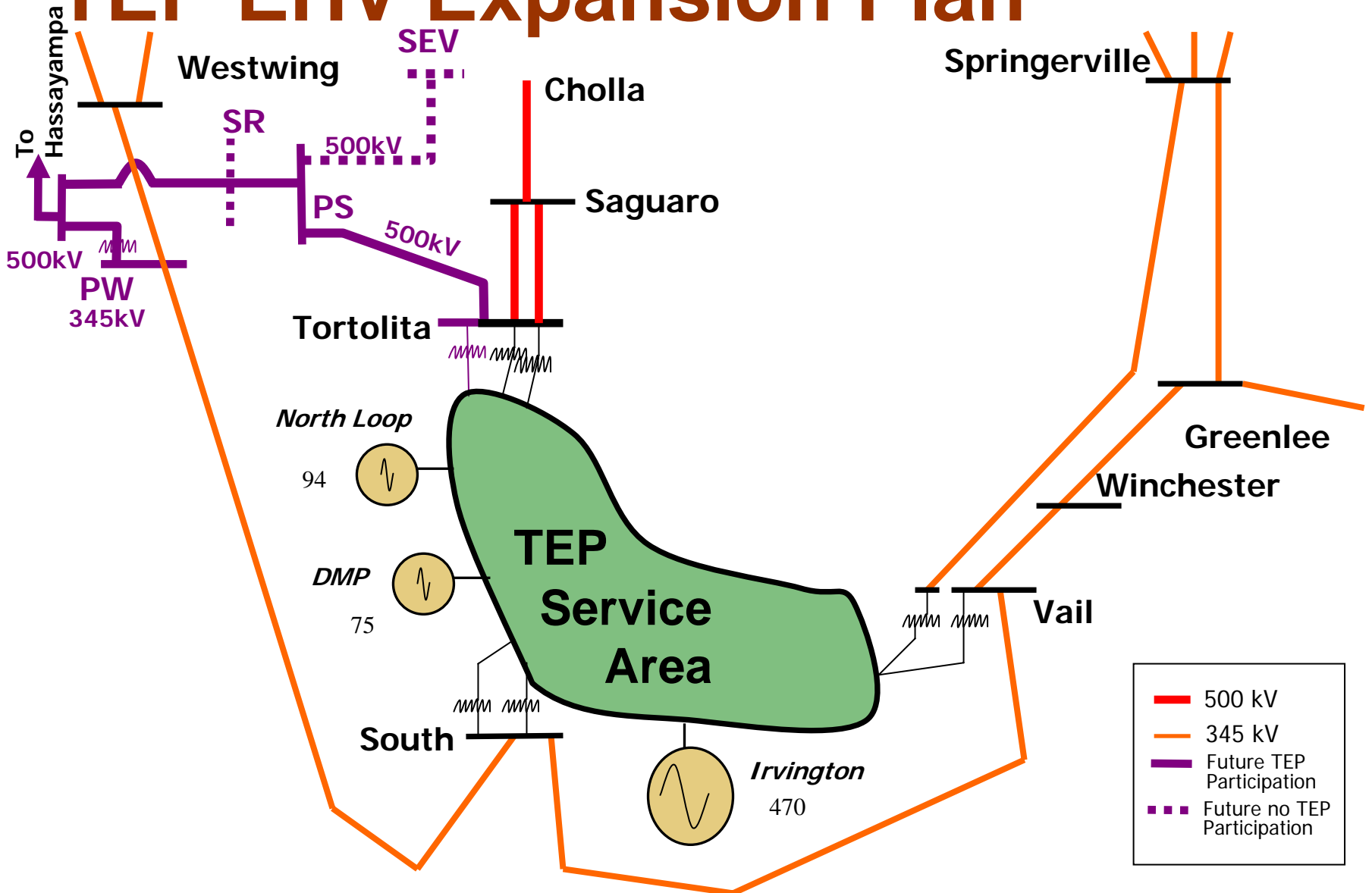
TEP EHV Expansion Plan



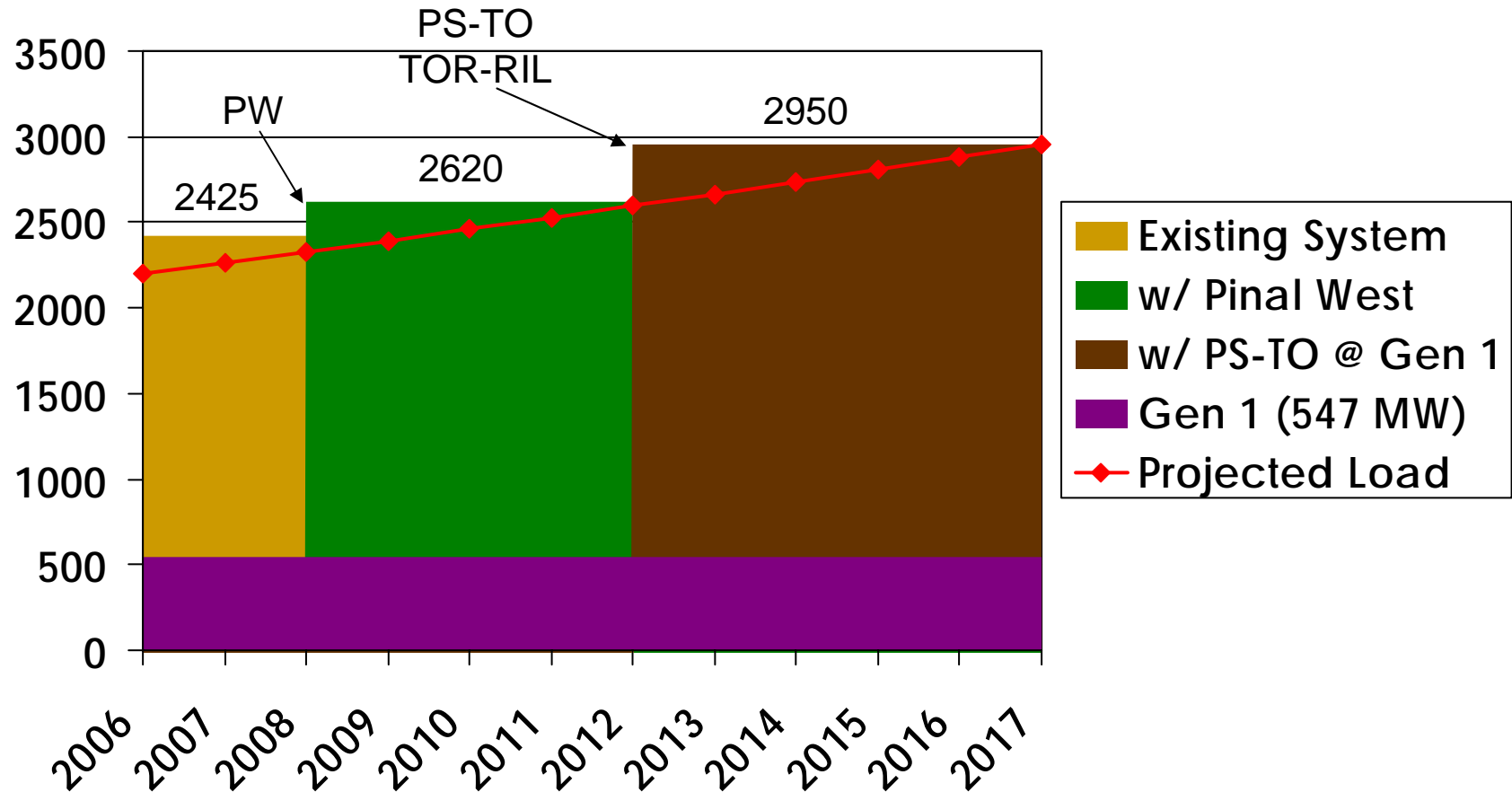
Forecasted Load vs. MLSC



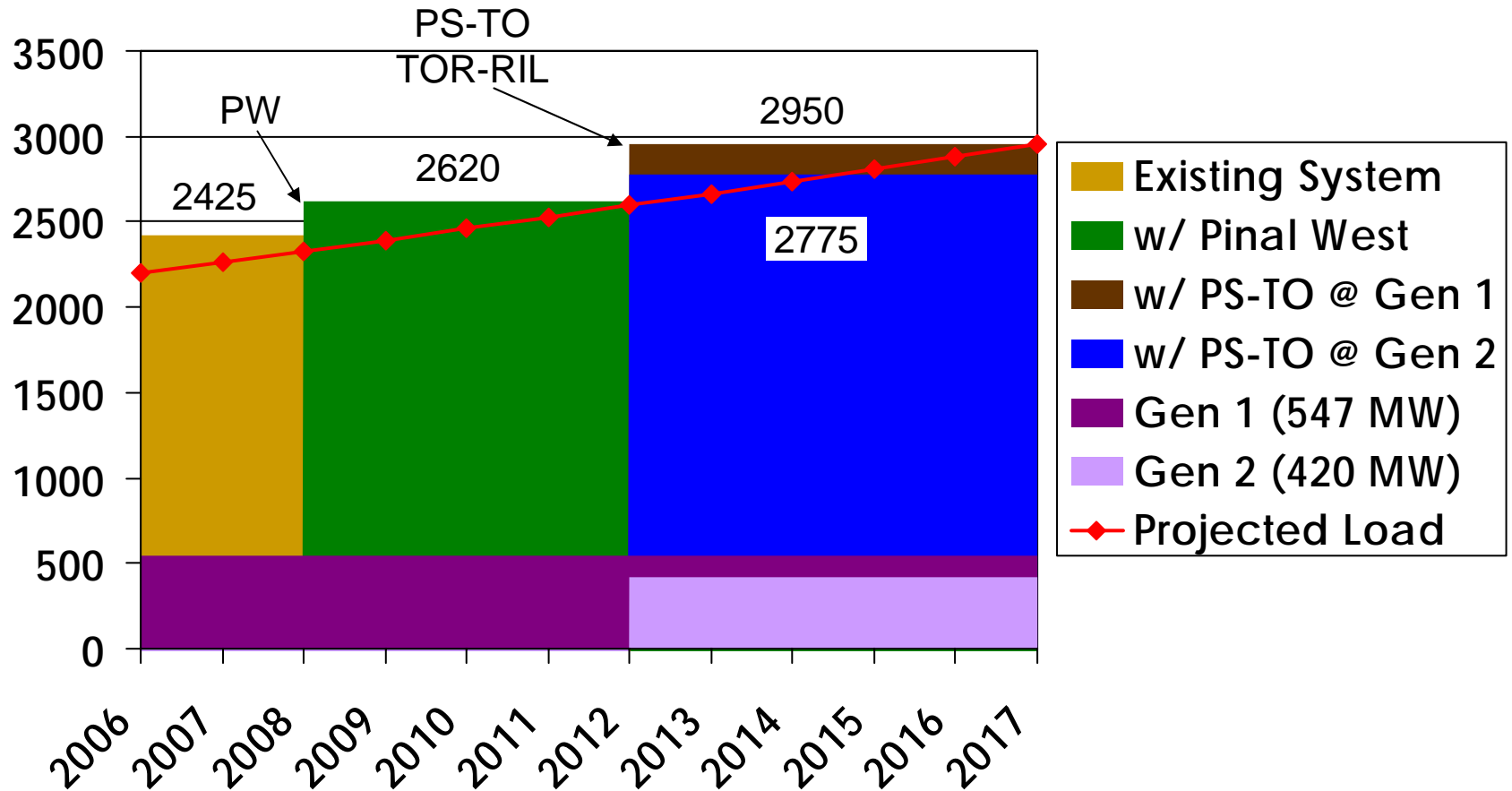
TEP EHV Expansion Plan



Forecasted Load vs. MLSC



Forecasted Load vs. MLSC



Next Steps

☀ Additional Study Work

- Included in Voltage Stability Study being performed by TEP
- Evaluate other options besides the TOR-RIL 138 kV line and RIL-NEL line upgrade
- Evaluate project timing

Questions