DOCKETED

Docket Number:	15-RETI-02
Project Title:	Renewable Energy Transmission Initiative 2.0
TN #:	208286
Document Title:	Los Angeles Department of Water and Power Presentation
Description:	N/A
Filer:	clare Laufenberg
Organization:	Los Angeles Department of Water and Power
Submitter Role:	Public Agency
Submission Date:	1/21/2016 12:14:01 PM
Docketed Date:	1/21/2016

Transmission System Improvement for Renewable Portfolio Standard

For

Renewable Energy Transmission Initiative

by

Mukhles Bhuiyan

Los Angels Department of Water and Power

January 22, 2016

Transmission System Improvement to Comply with Renewable Portfolio Standard (RPS)

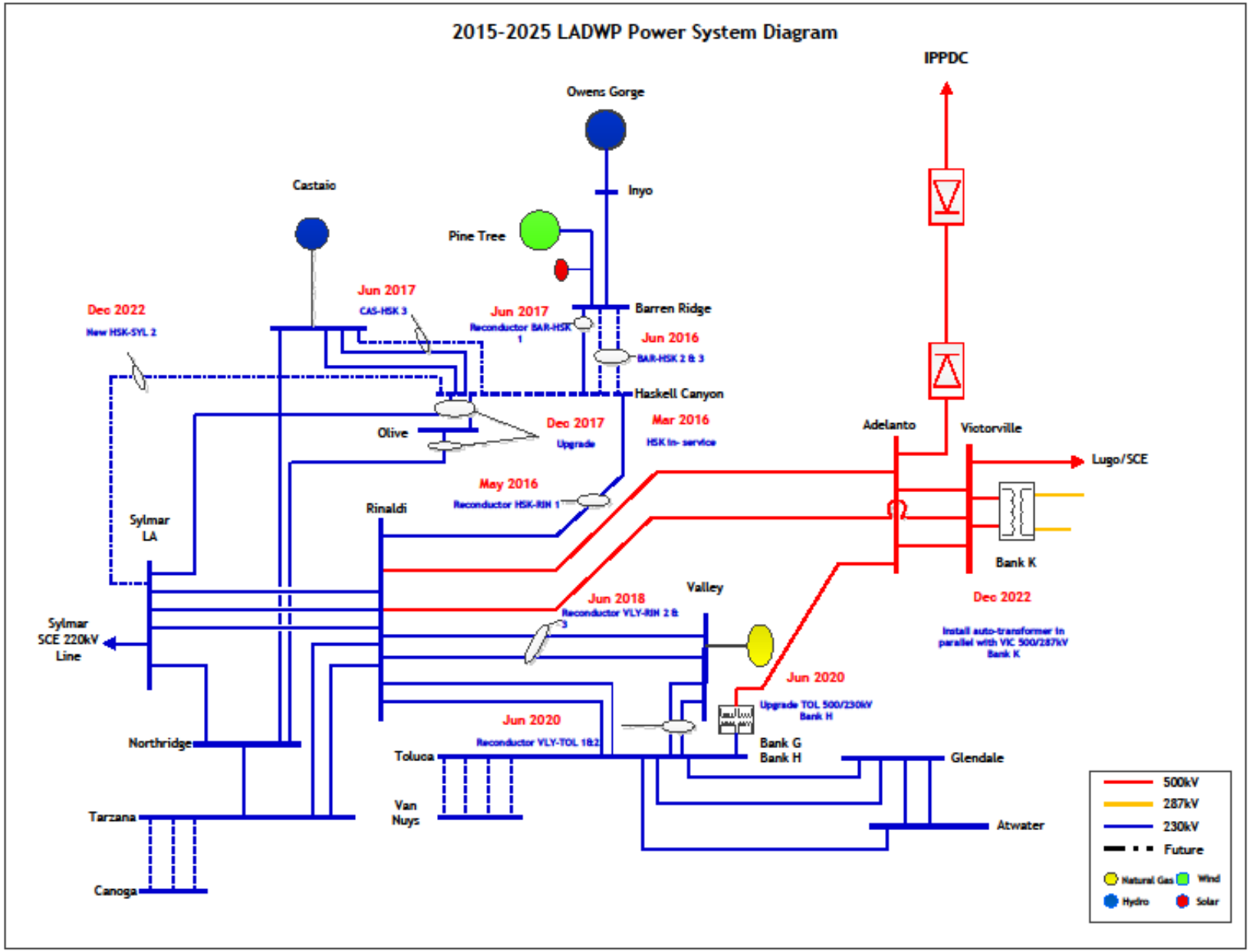
- Implement Barren Ridge Renewable Transmission Project to transmit renewables from Mohave Desert and Owens Valley areas for meeting RPS from 2016 through 2020
  - Required EIR
  - Construct a 230kV double-circuit transmission line
  - Build a new 230kV circuit on existing transmission towers
  - Construct a new 230kV switching station
  - Reconductor existing 230kV circuits
  - Loop existing 230kV circuits into the new 230kV switching station
  - In-service date: June 2016

Transmission System Improvement to Comply with Renewable Portfolio Standard (Cont'd)

- Upgrade South of Haskell Canyon Transmission System to further improve transfer capability of Barren Ridge Renewable Transmission Project for meeting RPS from 2024 through 2030
  - Upgrade transmission line rating of three 230kV circuits by raising and modifying some transmission towers to mitigate ground clearance issues
  - Convert two 115kV circuits to one 230kV circuits (may require EIR)
  - Target In-service Date: December 2022

Transmission System Improvement to Comply with Renewable Portfolio Standard (Cont'd)

- Upgrade Transfer Capability of Victorville to LA Basin transmission system enable to transmit renewables from Eldorado Valley, Arizona, and Southern Nevada areas for meeting RPS from 2024 through 2030
  - Install one new 500kV/287kV and Replace one 500kV/230kV Transformers
  - Reconductor four 230kV circuits
  - Install capacitor banks at strategic substations
  - Upgrade station equipment including circuit breakers, disconnect switches, capacitor voltage transducers, etc
  - Target In-service date: December 2022


2015-2025 LADWP Power System Diagram
IPPDC
Owens Gorge
Inyo
Castaic
Pine Tree
Barren Ridge
Haskell Canyon
Olive
Rinaldi
Sylmar LA
Sylmar SCE 220kV Line
Northridge
Tarzana
Canoga
Toluca
Van Nuys
Valley
Bank G
Bank H
Glendale
Atwater
Adelanto
Victorville
Lugo/SCE
Bank K
Dec 2022
New HSK-SYL 2
Jun 2017
CAS-HSK 3
Jun 2017
Reconductor BAR-HSK 1
Jun 2016
BAR-HSK 2 & 3
Dec 2017
Upgrade
Mar 2016
HSK In- service
May 2016
Reconductor HSK-RIN 1
Jun 2018
Reconductor VLY-RIN 2 & 3
Jun 2020
Reconductor VLY-TOL 1&2
Jun 2020
Upgrade TOL 500/230kV Bank H
Dec 2022
Install auto-transformer in parallel with VIC 500/287kV Bank K
500kV
287kV
230kV
Future
Natural Gas
Wind
Hydro
Solar