

# **BPA Transmission Southern Intertie Hourly Non-Firm Workshop**

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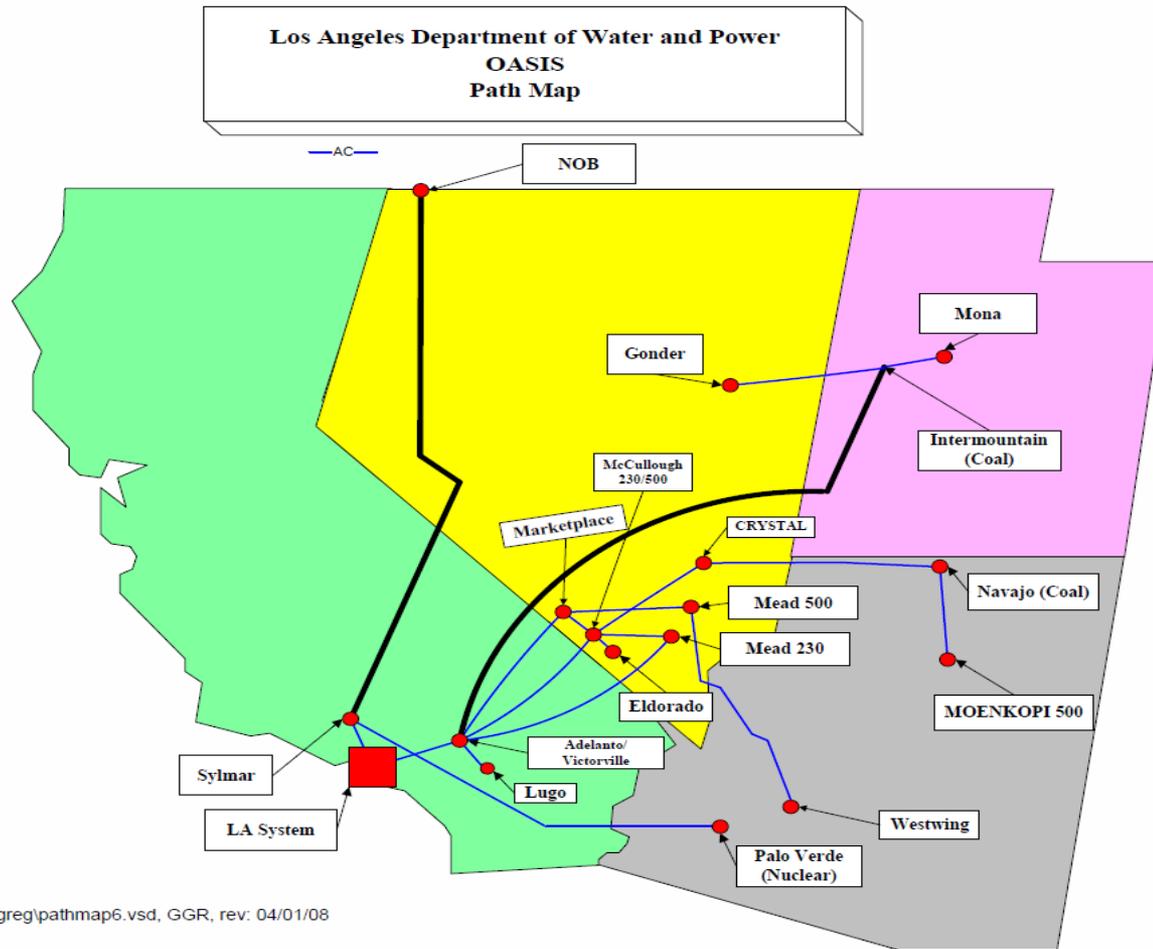
## **Reserving & Scheduling Transmission on the Pacific DC Intertie from the LADWP OASIS**

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September 29, 2015

## Background History of LADWP OASIS

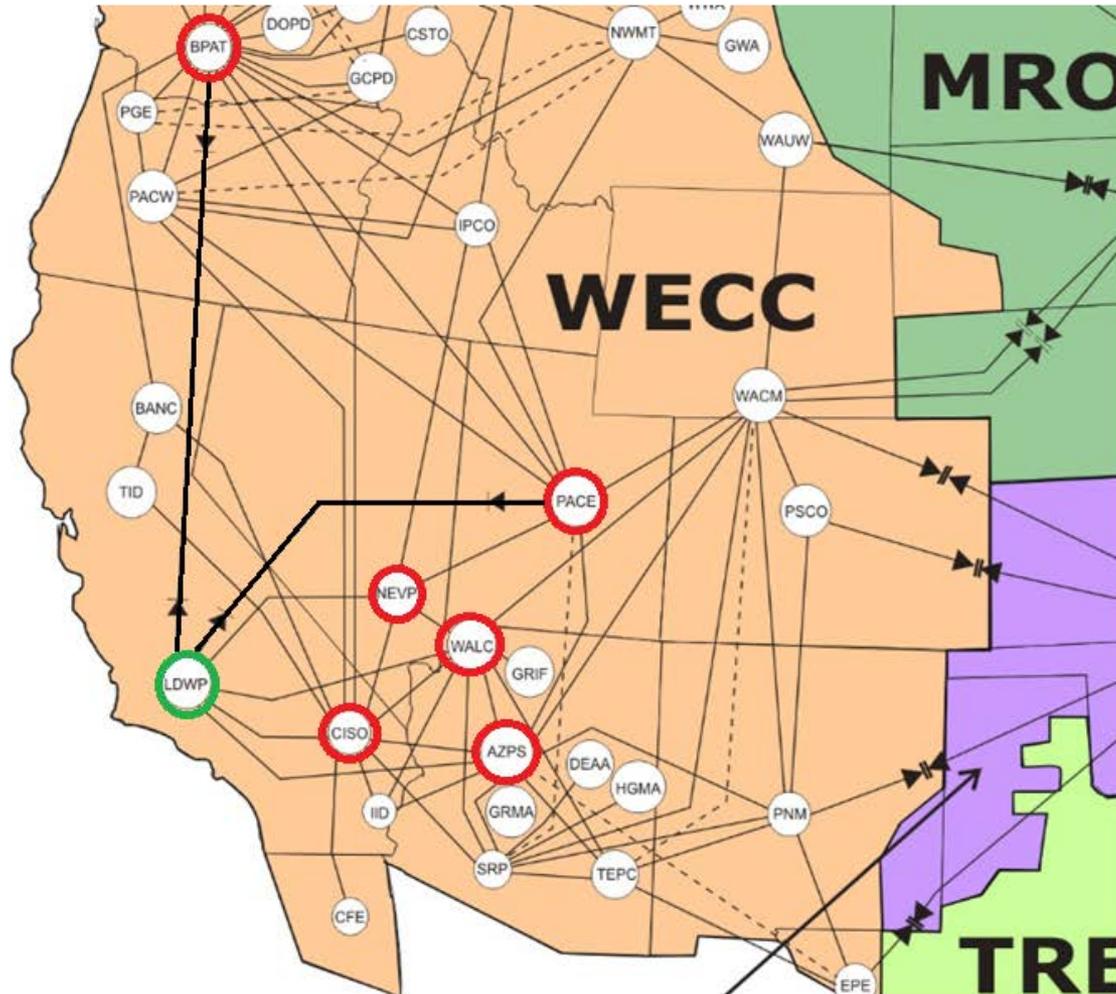
- The Los Angeles Department of Water and Power (LADWP) is the largest municipal utility in the U.S., serving 4 million residents of Los Angeles and Owens Valley.
- A non-public utility under the Federal Power Act.
- Non FERC-jurisdictional; tariff and contracts are approved by the Los Angeles City Council.
- An in-house OASIS in 1996, moved to SWOASIS in 2000, and **joined Westtrans in 2004.**

# LADWP Transmission Path Model



S:\sag\oasis\greg\pathmap6.vsd, GGR, rev: 04/01/08

# LDWP BA Area -Adjacencies



# LADWP Adjacent Balancing Authorities and Ties

- APS at Navajo500, Moenkopi500, & Westwing500
- **BPA at NOB**
- CAISO at Sylmar, Inyo, Eldorado500, and Lugo
  - Inyo is not an active scheduling point.
  - CAISO calls the Eldorado500 tie “McCullough” and the Lugo tie “Victorville.”
- NV Energy: Gonder, McCullough230, & Crystal500
- PACE: Mona
- WAPA: Marketplace and Mead230

LADWP has contractual rights from Sylmar to Palo Verde, which allows delivery to the CAISO and other BAs at the Palo Verde bus.

## LADWP PDCI 2004 Upgrades

- LADWP is the path operator for the southern portion of the PDCI, from NOB to Sylmar.
- In 2004, LADWP undertook **similar upgrades at Sylmar** that BPA is performing in 2015/2016.
- Replaced old converters and mercury arc valves, and made Sylmar a two-converter terminal.
- Rating remains at 3100 MW. At NOB = 2990 MW.
- Coordinated the 9-month upgrades and extensive outages with BPA.

## PDCI N to S Ownership Shares: NOB-Sylmar

- SCE 50 % (managed by the CAISO)
- **LADWP 40%**
- Burbank, Glendale, Pasadena 10%
- Scheduling capacities:
  - CAISO (including Pasadena) = 1564 MW
  - **LADWP = 1196 MW**
  - Burbank = 115 MW
  - Glendale = 115 MW
- Capacities are not shared. Each Transmission Provider is responsible for its own curtailment except in emergency.

# LADWP 2014 OATT

## Transmission Products and Services

- Rates are lower than the 2001 OATT.
- Point-to-Point rates are for **all paths**.
- No separate rates for the PDCI, IPPDC, AC, or DC+AC paths.
- Transmission Services:
  - Schedule 7 (Firm Point-to-Point)
  - Schedule 8 (Non-firm Point-to-Point)
  - Offer **On-Peak** and **Off-Peak** Firm and NF Hourly
  - Daily, Weekly, and Monthly are still Full-Period
- Ancillary Services similar to pro-forma Schedules 1 – 10.

# LADWP 2014 OATT

## Point-to-Point Transmission Rates

<b>SERVICE</b>	<b>PERIOD</b>	<b>Schedule 7 or 8 Rates (\$/MW)</b>
<b>Hourly</b>	<b>On-Peak</b>	<b>\$10.81</b>
<b>Hourly</b>	<b>Off-Peak</b>	<b>\$5.14</b>
<b>Daily</b>	<b>Full</b>	<b>\$124</b>
<b>Weekly</b>	<b>Full</b>	<b>\$865</b>
<b>Monthly</b>	<b>Full</b>	<b>\$3,750</b>
<b>Yearly</b>	<b>Full</b>	<b>\$44,990</b>

# LADWP 2014 OATT

## Long-Term Transmission

### Long-term transmission restrictions due to **IRS Rule for Tax-exempt bonds.**

- Long-term transmission service is 2 or more years.
- Total duration is limited to 3 years, including renewal.
- Non-refundable processing fee of \$3500, with one month of refundable deposits (no interest).
- Submit Long-term request  $\geq 60$  days but  $\leq 3$  years in advance.
- Allow Resale higher than tariff, and up to the opportunity cost.

# LADWP 2014 OATT

## Financial Loss Settlement

- Financial Loss Settlement  
**SP15 Day-Ahead Hourly Price** is used as a Proxy Price.
- Physical Loss Return  
allows but must make prior arrangement.
- Loss rate for Palo Verde path is 5.89%, and it is in addition to the **6.2% for DC paths**, or 4.8% for AC paths.

## LADWP PDCI Redirect Restrictions

- Transmission can be redirected to the PDCI S-N paths only as non-firm **Hourly Secondary**. Redirect on a firm basis to the PDCI S-N paths is not allowed.
- Customers with firm reservation on PDCI N-S (NOB to a POD) can redirect firm, using its previously-reserved PDCI capacity, to other PODs even if firm ATC is not available on the PDCI.
- Redirected transmission has a price of **zero**.

# LADWP Reservation Business Practice

- Hourly Firm redirect: 11 AM - 3 PM PPT preschedule.
- Hourly (Firm, NF, Secondary): 11 AM PPT preschedule to 20 minutes before start.
- Daily release of unscheduled firm as NF: 4 PM PPT.
- Yearly and Monthly Firm transmission service can be redirected to hourly, daily, weekly, and monthly firm.
- Discounted yearly and monthly transmission can only request non-firm hourly secondary redirect service.

# Curtailment Coordination Between BPA and LADWP

- Both BPA and LADWP use the OATI Curtailment Manager software to re-allocate transmission contractual rights on the PDCI.
- LADWP uses “Curtail to Maximum Utilization” to manage curtailment due to
  - Reliability curtailment, or
  - Economic re-allocation (bumping)
- The Sink balancing authority initiates the cut, except in emergency
  - **PDCI N>S, LADWP curtails**
  - **PDCI S>N, BPA curtails**

## Non-firm Curtailment Refunds

- Non-firm transmission if curtailed, will be refunded based on the amount **cut** on e-tag.
- The Reliability Limit is a warning/advisory value. If all customers on the limiting segment tagged their full reservation capacity, the Reliability Limit is what it will be cut to. Curtailment credit is based on what is curtailed, not what is on the Reliability Limit.

# LADWP and BPA

## Hourly Non-Firm Reservations on the PDCI

From August 20, 2014 to September 24, 2015, data taken from OATI WebOASIS and WebTrans on 9/25/15.

BPAT: Hourly, Original, Non-Firm, PTP, POR = Big Eddy, POD = NOB

Total confirmed TSRs: **1087 (N/S)**

LDWP: Hourly, Original, Non-Firm, PTP, POR = NOB, POD = All

Total confirmed TSRs: **1838 (N/S)**

BPAT: Hourly, Original, Non-Firm, PTP, POR = NOB, POD = Big Eddy

Total confirmed TSRs: **130 (S/N)**

LDWP: Hourly, Original, Non-Firm, PTP, POR = All, POD = NOB

Total confirmed TSRs: **103 (S/N)**

# LADWP and BPA

## Hourly Non-Firm Customers on the PDCI

From August 20, 2014 to September 24, 2015, data taken from OATI WebOASIS and WebTrans on 9/25/15.

<b>BPAT POD=NOB (N/S)</b>	BPAP	CALP	CORP	EAGL	MCPI	MSCG	PGEM	PPMI	PWX	SCET	SCLM	TEA	TEMU	TIDS
<b>LDWP POR=NOB (N/S)</b>	CORP	GPM	LAWM	MCPI	MSCG	PGEM	PPMI	PSEM	PWX	TNSK				
<b>BPAT POR=NOB (S/N)</b>	BPAP	CORP	EAGL	MCPI	MSCG	PGEM	PSEM	PWX	SCLM	TEA	TEMU			
<b>LDWP POD=NOB (S/N)</b>	MSCG	PAC	PGEM	PPMI	PWX	TNSK								

## SEAMS issues

- With BPA: Reservation MW amounts, Priorities of the TSRs, Timing of NF release, curtailment, etc...
- With CAISO: Products, FNM reserves part of DA ATC for RT congestion, mismatch of ATC. Concern about EIM transfers and parallel flows. Concern about future of transmission sales if bi-lateral trades will be impacted by rules of EIM tariffs.
- Timing of outage entry and calculations for forced and planned outages per MOD-001-1a R2 and R8.

## LADWP OASIS Home Page link

<http://www.oasis.oati.com/LDWP/>

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**Any questions?**

