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**EXHIBIT I**

**Maps**

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## DESCRIPTION OF TRANSMISSION LINES AND FACILITIES

I. **A description of the transmission lines and associated facilities that the applicant intends to place under the ISO's Operational Control and a one-line diagram of the facilities.**

1. **CALIFORNIA-OREGON TRANSMISSION PROJECT (COTP)**

1.1 **General**

The California-Oregon Transmission Project is an alternating current transmission line with an existing rating of 1,600 MW North-to-South and 1225 MW South-to-North. The Project consists of approximately three hundred forty (340) miles of 500-kV transmission line extending from Southern Oregon to central California, developed in three segments, plus substations and other facilities. The Project is interconnected with, and operated in parallel with, the Pacific Intertie facilities.

1.2 **Transmission Line Segments**

1.2.1 **The Northern Segment.** Approximately one hundred forty-eight and one-half (148.5) miles of single circuit configuration extending from the Captain Jack Substation in Southern Oregon to Olinda Substation in northern California.

1.2.2 **The CVP Upgrade Segment.** Approximately one hundred ninety (190) miles of single circuit configuration extending from the Olinda Substation to the Tracy Substation.

1.2.3 **The Tesla By-Pass Segment.** Approximately seven (7) miles of double circuit line extending from the Tracy Substation to a location where it intercepts the Pacific AC Intertie on PG&E's 500-kV transmission line exiting south from Tesla Substation to Los Banos Substation.

1.3 **Substations**

The Project substation facilities consist of the Olinda Substation, the Maxwell Compensation Station and the Tracy Substation.

1.4 **Other Facilities**

Other Project facilities include Communication Facilities and metering necessary for the Project's operation. The Communication Facilities include two (2) separate primary microwave paths for protective relaying and communication circuits.

1.5 **Entitlement**

The City of Vernon is entitled to 7.5497 percent of the Project transfer capability. Current entitlements are as follows:

|                |        |
|----------------|--------|
| North to South | 121 MW |
| South to North | 92 MW  |

(Note: This entitlement is currently provided to PG&E in exchange for transmission service from PG&E between NOB and Midway.)

**2. MEAD-ADELANTO PROJECT (MAP)**

**2.1 Transmission Line**

The Mead-Adelanto Project (MAP) is an alternating current transmission line with an accepted rating of 1,200 MW. The MAP is a 202-mile, 500 kV alternating current transmission line constructed from Marketplace Switching Station in Southern Nevada to the 500 kV Adelanto Switching Station in Southern California with series capacitor line compensation of 45 percent at Marketplace. It is utilized to deliver electrical energy between Southern Nevada and Southern California.

**2.2 Marketplace Substation**

Marketplace Substation is the common terminal for the Mead-Phoenix and Mead-Adelanto Projects (jointly owned by the Mead-Adelanto Project and Mead-Phoenix Project owners) and includes the Marketplace-McCullough tie line as common facilities.

Marketplace consists of a 500 kV switchyard configured as a four-breaker, four-position ring bus with series capacitors, and shunt compensation for the Marketplace-Adelanto transmission line.

**2.3 Static Var Compensators**

The MAP facilities include two Static Var Compensators (SVC) approximately 388 megavar each (one located at Marketplace and the other at Adelanto for network stability synchronization).

**2.4 Marketplace-McCullough Tie Line**

The Marketplace McCullough Tie Line is approximately a one (1) mile transmission line between Marketplace and McCullough. A 500 kV position is installed at the McCullough switching station for terminating the Marketplace-McCullough tie line.

**2.5 Telecommunications**

The MAP includes two communication paths between Marketplace, Adelanto, McCullough, and Mead for line protection, telemetry and voice channel.

**2.6 Entitlement**

The City of Vernon is entitled to 6.25 percent, or currently 75 MW, of the Project transfer capacity in either direction.

**3. MEAD-PHOENIX PROJECT (MPP)**

**3.1 Transmission Line**

The Mead-Phoenix (MPP) is an alternating current transmission line with an accepted rating of 1,300 MW. The MPP is a 256-mile, 500 kV alternating current transmission line constructed from the Perkins Switchyard near Sun City, Arizona to Marketplace Switching Station in Southern Nevada. The Project is utilized to transmit electrical energy between Central Arizona and Southern Nevada.

3.2 Transmission capacity in the Mead-Phoenix Project varies between the facilities and there are three components.

3.2.1 Component A: Westwing-Mead

Includes the Perkins to Mead 500 kV transmission line, Perkins Switchyard, Westwing Interconnection, Westwing Tie Line, Communications System from Westwing to Mead, Perkins line compensation at Mead and undivided one-third interest in the Mead 500 kV Common Facilities. Mead 500 kV Common Facilities are all common facilities and equipment (excluding any interconnection facilities) at the Mead 500 kV substation, including, but not limited to: communication equipment, protective systems, control house space, relaying equipment, control cabling, buswork, bus structures, fencing and metering equipment. Perkins Switchyard contains series capacitor bank, shunt reactors, circuit breakers and phase shifting transformers.

3.2.2 Component B: Mead Substation

Includes the Mead 500/230 kV transformer, 230 kV interconnection and undivided one-third interest in the Mead 500 kV Common Facilities (as defined in section 3.2.1 above).

3.2.3 Component C: Mead-Marketplace

Includes the Mead to Marketplace 500 kV transmission line, undivided one-third interest in the Mead 500 kV Common Facilities (as defined in section 3.2.1 above), Communications Systems Mead to Marketplace, Mead line termination at Marketplace. It also includes 50 percent ownership of the Marketplace Common Facilities, Marketplace SVC, Marketplace to McCullough Tie Line, McCullough Interconnection, Adelanto SVC and the Adelanto SVC termination.

3.3 Entitlement

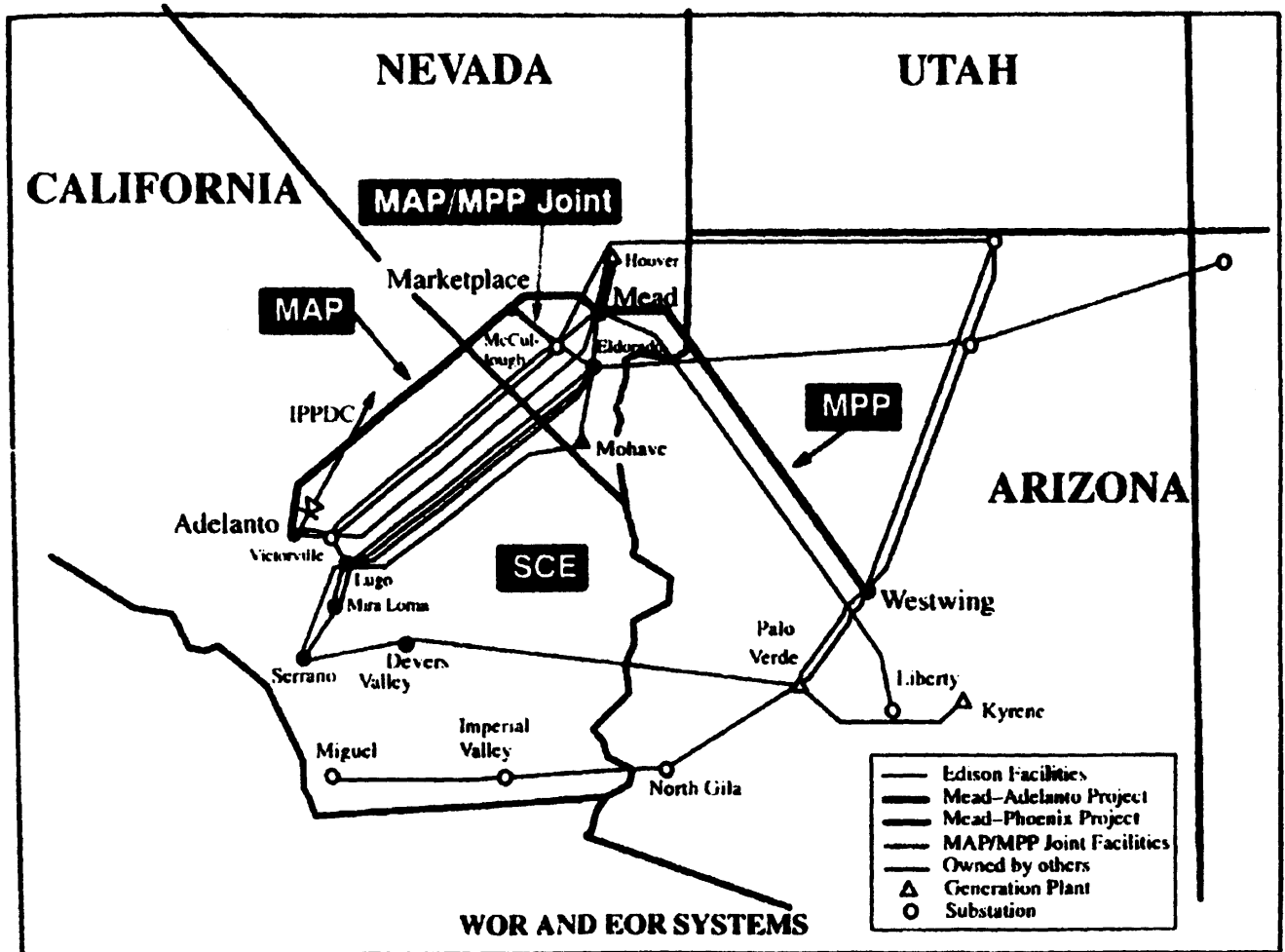
The City of Vernon has the following transmission capability entitlements in either direction.

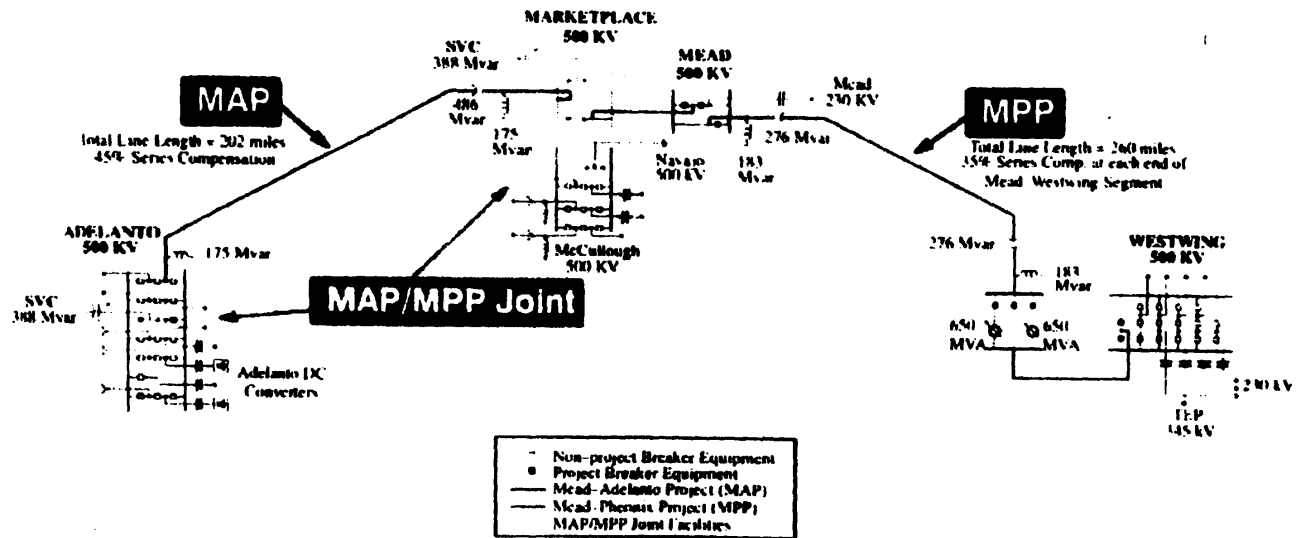
3.3.1 Westwing-Mead (Component A): 2.1538 percent, or currently 28 MW

3.3.2 Mead Substation (Component B): 3.7934 percent, or currently 47 MW between the 500 kV and 230 kV bus.

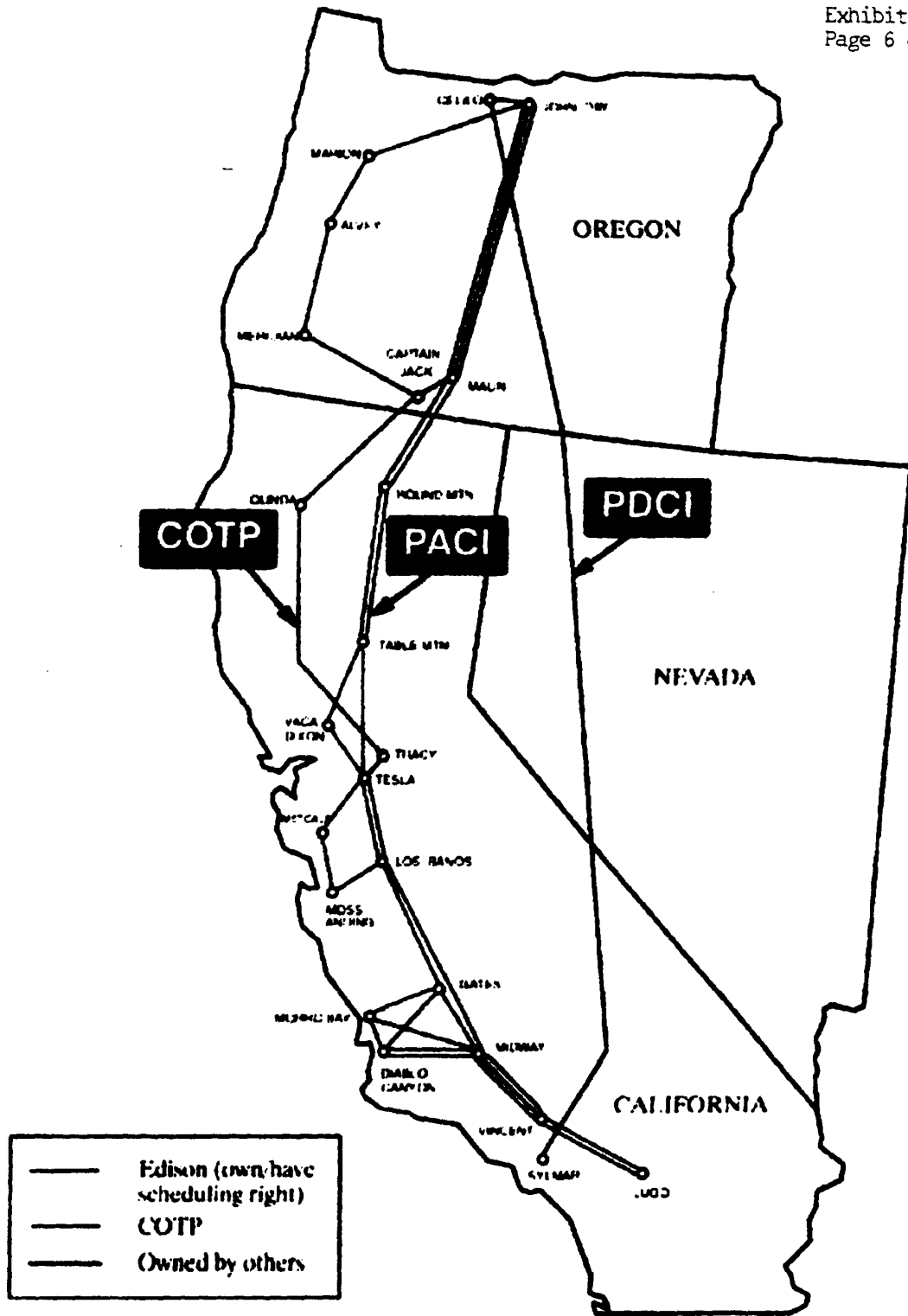
3.3.3 Mead-Marketplace (Component C): 4.0497 percent, or currently 75 MW.

See Attachment I for diagram of facilities





**Schematic of the Mead-Adelanto and Mead-Phoenix Project Systems**



### PACIFIC NORTHWEST - PACIFIC SOUTHWEST INTERTIE