

AMENDMENT NO. 11  
TO THE  
NAVAJO PROJECT  
CO-TENANCY AGREEMENT

By FERC order/notice of acceptance dated \_\_\_\_\_ in FERC  
Docket No. \_\_\_\_\_, this Amendment No. 11 was accepted  
for filing and the rate schedules became effective on  
\_\_\_\_\_.

Issue Date: October 30, 2014

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EXHIBITS

B-B, SHEET 1	NAVAJO PROJECT CO-TENANCY AGREEMENT - TRANSMISSION SYSTEM OWNERSHIP
B-B, SHEET 8	TRANSMISSION SYSTEM OWNERSHIP - CRYSTAL SUBSTATION
G	SOUTH CRYSTAL 500 KV SWITCHYARD OWNERSHIP PERCENTAGES
H	CRYSTAL SUBSTATION COMMON FACILITIES OWNERSHIP PERCENTAGES (SOUTH CRYSTAL 500 KV SWITCHYARD PORTION ONLY)

AMENDMENT NO. 11  
TO THE  
NAVAJO PROJECT  
CO-TENANCY AGREEMENT

1. **PARTIES:** The parties to this AMENDMENT NO. 11 to the NAVAJO PROJECT CO-TENANCY AGREEMENT ("Amendment No. 11") are: THE UNITED STATES OF AMERICA, hereinafter referred to as the "United States" or "U.S.," acting through the Secretary of the Interior, a duly appointed successor or a duly authorized representative; ARIZONA PUBLIC SERVICE COMPANY, hereinafter referred to as "Arizona" or "APS," an Arizona corporation; THE CITY OF LOS ANGELES by and through the Department of Water and Power, hereinafter referred to as "Los Angeles" or "LADWP," a department organized and existing under the Charter of the City of Los Angeles, a municipal corporation of the State of California; NEVADA POWER COMPANY, doing business as NV Energy, hereinafter referred to as "Nevada" or "NVE," a Nevada corporation; SALT RIVER PROJECT AGRICULTURAL IMPROVEMENT AND POWER DISTRICT, hereinafter referred to as "Salt River Project" or "SRP," an agricultural improvement district organized and existing under the laws of the State of Arizona; and TUCSON ELECTRIC POWER COMPANY, hereinafter referred to as "Tucson" or "TEP," formerly known as Tucson Gas & Electric Company, an Arizona corporation; all of the foregoing are sometimes individually referred to as "Participant" and collectively as "Participants."

2. **RECITALS:** This Amendment No. 11 is made with reference to the following facts, among others:

2.1 On March 23, 1976, the Participants entered into the NAVAJO PROJECT CO-TENANCY AGREEMENT ("Co-Tenancy Agreement"), as supplemented by Supplement No. 1 and amended by Amendment Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10, and as may be further supplemented and/or amended, which established certain terms and conditions

relating to their interest in and their ownership of the Navajo Project and which established certain rights and obligations under the Project Agreements.

- 2.2 On September 29, 1998, the Transmission Engineering and Operating Committee approved the technical feasibility of the addition of a second 500/230 kV transformer at the Yavapai Switchyard. This approval was based on the results of technical studies performed by Arizona and presented by Arizona to the Transmission Engineering and Operating Committee on September 29, 1998.
- 2.3 On September 30, 2008, the Transmission Engineering and Operating Committee approved the technical feasibility of the interconnection of the new Dugas Switchyard to the Navajo-Westwing 500 kV transmission line. This approval was based on the results of technical studies performed by Arizona and presented by Arizona to the Transmission Engineering and Operating Committee on April 17, 2008.
- 2.4 On April 13, 2011, the Transmission Engineering and Operating Committee approved the technical feasibility of the interconnection of the Cedar Mountain Switchyard to the Moenkopi-Yavapai 500 kV transmission line. This approval was based on the results of technical studies performed by Arizona and presented by Arizona to the Transmission Engineering and Operating Committee on April 13, 2011.
- 2.5 On April 22, 2013, the Transmission Engineering and Operating Committee approved the technical feasibility of the transmission-to-transmission interconnection of Los Angeles' new transmission line from the new Moapa Substation, to be operated by Los Angeles, to the Navajo Project's Crystal South 500 kV Switchyard operated by Nevada, i.e., the new Crystal-Moapa 500 kV transmission line.

This approval was based on the results of technical studies performed by Nevada and presented by Nevada to the Transmission Engineering and Operating Committee on March 5, 2013.

2.6 On September 16, 2014, the Transmission Engineering and Operating Committee approved the technical feasibility of the transmission-to-transmission interconnection of Los Angeles' to account for revised inverters. This approval was based on results of technical studies performed by Nevada and presented by Nevada to the Transmission Engineering and Operating Committee on July 24, 2014.

2.7 The Participants desire to enter into this Amendment No. 11 to reflect: (i) the interconnection of the new Crystal-Moapa 500 kV transmission line in the Crystal South 500 kV Switchyard; (ii) changes to the descriptions of certain Components of the Transmission System in Exhibit B to reflect these modifications; (iii) changes to the one line diagrams in Exhibit B-B to reflect these modifications; (iv) changes to Exhibit G to reflect name changes within the document.

3. **AGREEMENT:** In consideration of the mutual covenants and benefits to be derived from this Amendment No. 11, the Participants agree as follows:

4. **AGREEMENT MODIFICATIONS:**

4.1 Subsection C, CRYSTAL FACILITIES in Exhibit B, TRANSMISSION SYSTEM, Section II, WESTERN TRANSMISSION SYSTEM, of the Co-Tenancy Agreement is hereby deleted in its entirety and a new Subsection C is hereby substituted to read in its entirety as follows:

"1. The South Crystal 500 kV Switchyard, a basic breaker-and-a-half scheme, comprising:

(i) the 500 kV busses and the structures therefor;

- (ii) the termination facilities for
  - (a) two (2) 500/230 kV transformer banks,
  - (b) two (2) 500 kV phase-shifting transformers,
  - (c) the Navajo-Crystal 500 kV line,
  - (d) the Crystal-McCullough 500 kV line, and
  - (e) the Crystal-Moapa 500 kV line,including, but not limited to, power circuit breakers, disconnect switches, and the structures therefor;
- (iii) relays; and
- (iv) other facilities up to and including the connection to the high-side bushings of the 500/230 kV transformer banks.

The South Crystal 500 kV Switchyard shall not include: (i) any Crystal Substation Common Facilities; (ii) any 500/230 kV transformer banks located at the Crystal Substation; or (iii) any 230 kV or 500 kV phase-shifting transformers located at the Crystal Substation.

2. The Crystal Substation Common Facilities, all or part of those certain structures, improvements and facilities of the Crystal Substation, which include, but are not limited to: dikes, roadways, control building, communications building, ancillary buildings, trenches, conduits, remote terminal unit (RTU) and SCADA interface equipment, control and power cables, control equipment, batteries, auxiliary equipment, station grounding grid, fencing, lighting and yard improvements, and related land or land rights.

Crystal Substation Common Facilities shall not include: (i) any termination facilities associated with any line or

transformer termination at the Crystal Substation; (ii) any 500/230 kV transformer banks located at the Crystal Substation; (iii) any 230 kV or 500 kV phase-shifting transformers located at the Crystal Substation; or (iv) the Los Angeles owned SEL-3530 RTAC device in South Crystal 500 kV Switchyard.

3. The Project Series Capacitors and shunt reactors on the South Crystal 500 kV Switchyard end of the Navajo-Crystal 500 kV line including, but not limited to, the capacitors, control equipment, reactors, power circuit breaker, lightning arrestors, hazard fencing, disconnects, structures and bus work from the switchyard side of the first 500 kV transmission line tower located outside the switchyard to the attachment on the main switchyard structure."

4.2 Exhibit B-B, SHEET 1, TRANSMISSION SYSTEM OWNERSHIP, to the Co-Tenancy Agreement is hereby deleted in its entirety and replaced by a new EXHIBIT B-B, SHEET 1, attached hereto and by this reference incorporated herein.

4.3 Exhibit B-B, SHEET 8, CRYSTAL SUBSTATION, to the Co-Tenancy Agreement is hereby deleted in its entirety and replaced by a new EXHIBIT B-B, SHEET 8, attached hereto and by this reference incorporated herein.

4.4 Exhibit G, SOUTH CRYSTAL 500 KV SWITCHYARD OWNERSHIP PERCENTAGES, to the Co-Tenancy Agreement is hereby deleted in its entirety and replaced by a new EXHIBIT G, attached hereto and by this reference incorporated herein.

4.5 Exhibit H, CRYSTAL SUBSTATION COMMON FACILITIES OWNERSHIP PERCENTAGES (SOUTH CRYSTAL 500 KV SWITCHYARD PORTION ONLY), to

the Co-Tenancy Agreement is hereby deleted in its entirety and replaced by a new EXHIBIT H, attached hereto and by this reference incorporated herein.

5. **EFFECT:** Except for the changes set forth in this Amendment No. 11, all provisions of the Co-Tenancy Agreement as supplemented by Supplement No. 1 and as amended by Amendment Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10 shall remain in full force and effect to the extent that such provisions are not in conflict or inconsistent with this Amendment No. 11. In the event of any conflict between the provisions of this Amendment No. 11 and the Co-Tenancy Agreement as supplemented by Supplement No. 1 and as amended by Amendment Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10, the provisions of this Amendment No. 11 shall govern.

6. **EXECUTION AND EFFECTIVE DATE:**

- 6.1 This Amendment No. 11 may be executed in any number of counterparts and, upon execution and delivery by each Participant, the executed and delivered counterparts together shall have the same force and effect as an original instrument as if all the Participants had signed the same instrument. Any signature page of this Amendment No. 11 may be detached from any counterpart of this Amendment No. 11 without impairing the legal effect of any signatures thereon, and may be attached to another counterpart of this Amendment No. 11 identical in form thereto, but having attached to it one or more signature pages.
- 6.2 When this Amendment No. 11 to the Co-Tenancy Agreement has been executed by, and delivered to, the duly authorized representative of each Participant, Nevada shall promptly file this Amendment No. 11 with FERC and, if accepted for filing by FERC without condition or modification, this Amendment No. 11 shall be

effective as of the date specified by Nevada in the filing letter to FERC.

6.3 In the event FERC conditions or modifies this Amendment No. 11, Nevada shall promptly notify all the other Participants. Upon written notice given within thirty (30) days from the date of Nevada's notice to all other Participants by any Participant that such condition or modification is objectionable, this Amendment No. 11 shall terminate and be of no further force or effect. If no written notice is given by any Participant that such condition or modification is objectionable within such thirty (30) day period, this Amendment No. 11 shall become effective the day after such thirty (30) day period. Nevada shall set forth such conditions or modifications in an appendix which shall be attached hereto. Such appendix shall constitute an amendment to this Amendment No. 11 which amendment shall not require signature by the Participants.

**[SIGNATURES APPEAR ON NEXT PAGE]**

7. **SIGNATURE CLAUSE:** Each Participant hereto represents and warrants that the person executing this Amendment No. 11 to the Navajo Project Co-Tenancy Agreement has been duly authorized to act on its behalf. This Amendment No. 11 to the Navajo Project Co-Tenancy Agreement is hereby executed as of the \_\_\_\_\_ day of \_\_\_\_\_, 2014.

UNITED STATES OF AMERICA

Signature \_\_\_\_\_

Name \_\_\_\_\_

Regional Director  
Lower Colorado Region  
Title U.S. Bureau of Reclamation

Date Signed \_\_\_\_\_

~~UNITED STATES OF AMERICA~~ ARIZONA PUBLIC SERVICE COMPANY

Signature \_\_\_\_\_

Name \_\_\_\_\_

Title \_\_\_\_\_

Date Signed \_\_\_\_\_

DEPARTMENT OF WATER AND POWER  
OF THE CITY OF LOS ANGELES

by

BOARD OF WATER AND POWER COMMISSIONERS  
OF THE CITY OF LOS ANGELES

By \_\_\_\_\_

General Manager, David H. Wright

and \_\_\_\_\_

Secretary, Barbara Moschos

Date Signed \_\_\_\_\_

NEVADA POWER COMPANY, d/b/a NV Energy

Signature \_\_\_\_\_

Name \_\_\_\_\_

Title \_\_\_\_\_

Date Signed \_\_\_\_\_

SALT RIVER PROJECT AGRICULTURAL  
IMPROVEMENT AND POWER DISTRICT

Signature \_\_\_\_\_

Name \_\_\_\_\_

Title \_\_\_\_\_

Date Signed \_\_\_\_\_

TUCSON ELECTRIC POWER COMPANY

Signature \_\_\_\_\_

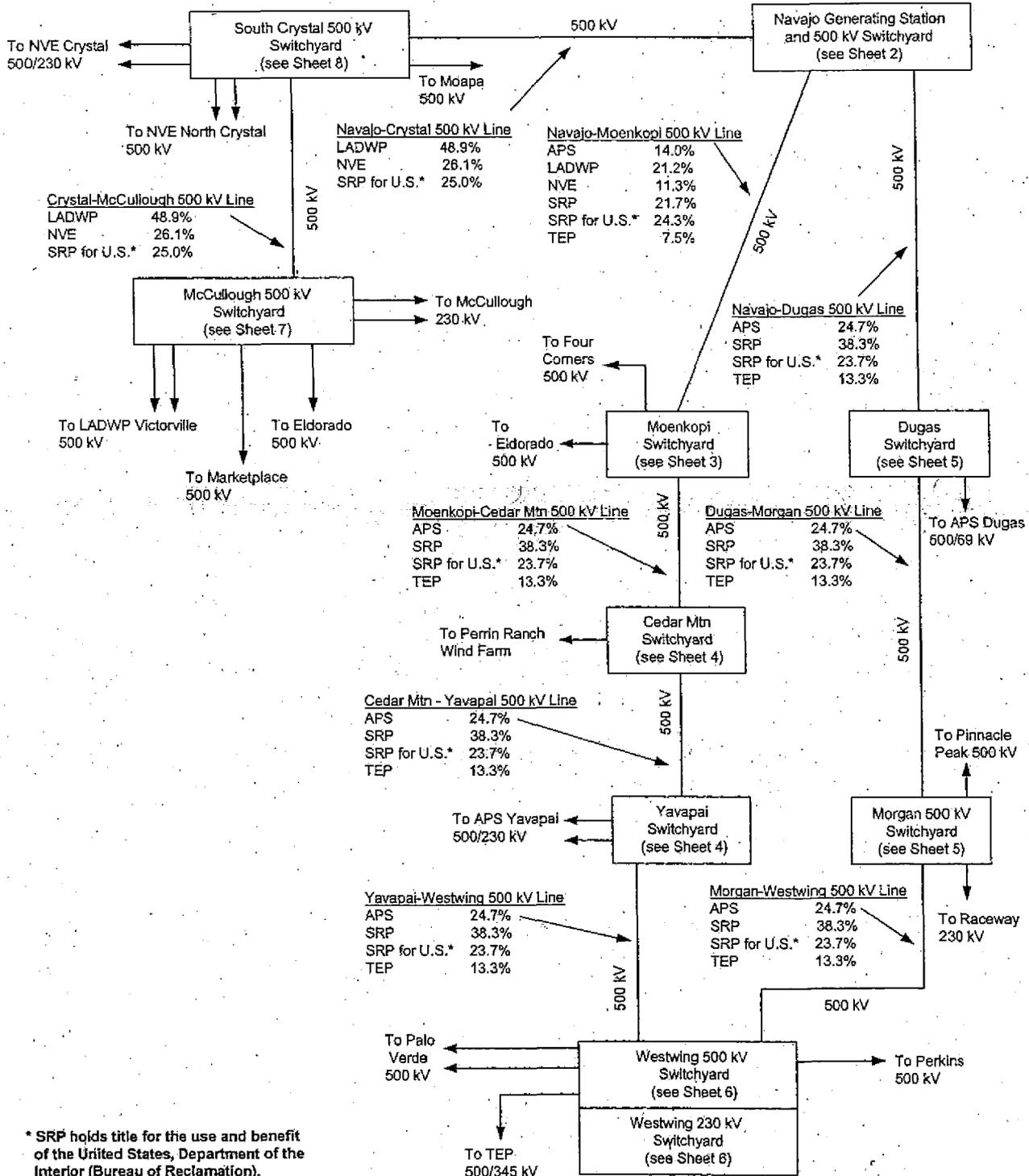
Name \_\_\_\_\_

Title \_\_\_\_\_

Date Signed \_\_\_\_\_

**EXHIBIT B-B, SHEET 1  
NAVAJO PROJECT CO-TENANCY AGREEMENT**

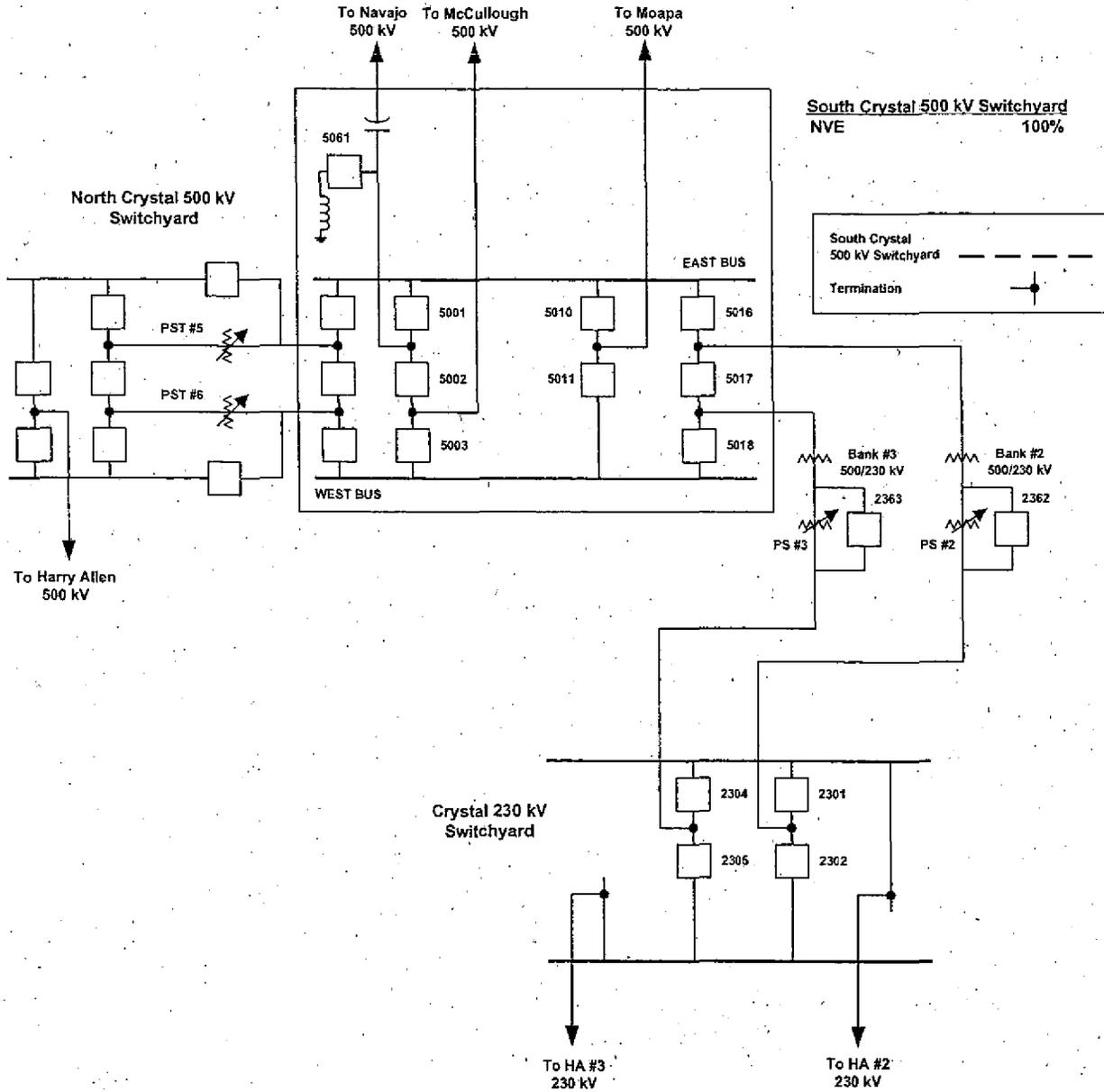
**TRANSMISSION SYSTEM OWNERSHIP**



\* SRP holds title for the use and benefit of the United States, Department of the Interior (Bureau of Reclamation).

**EXHIBIT B – B, SHEET 8  
 NAVAJO PROJECT CO-TENANCY AGREEMENT  
 TRANSMISSION SYSTEM OWNERSHIP**

**CRYSTAL SUBSTATION**



Note: The North Crystal 500 kV switchyard, the 500 kV phase-shifting transformer, the Crystal 230 kV Switchyard, the 500/230 kV transformer banks, and the 230 kV phase-shifting transformers are shown for information purposes only.

EXHIBIT G

SOUTH CRYSTAL 500 KV SWITCHYARD OWNERSHIP PERCENTAGES

<u>DESCRIPTION OF TERMINATION</u>	<u>OWNERSHIP (%)</u>		
	<u>LOS ANGELES</u>	<u>NEVADA<sup>(1)</sup></u>	<u>SRP FOR UNITED STATES<sup>(2)</sup></u>
Bank No. 2 - 500 kV	0.00	100.00	0.00
Bank No. 3 - 500 kV	0.00	100.00	0.00
PS No. 5	0.00	100.00	0.00
PS No. 6	0.00	100.00	0.00
Navajo-Crystal	0.00	100.00	0.00
Crystal-McCullough	0.00	100.00	0.00
<u>Crystal-Moapa 500 kV line<sup>(3)(4)</sup></u>	<u>0.00</u>	<u>100.00</u>	<u>0.00</u>
TOTAL	0.00	700.00	0.00

Sum of Ownership Percentages:

$$\begin{aligned} \text{Los Angeles} + \text{Nevada}^{(1)} + \text{SRP for United States}^{(2)} &= 0.00 + 700.00 + 0.00 \\ &= 700.00 \end{aligned}$$

Ownership percentages for the terminations in the South Crystal 500 kV Switchyard are shown in the above table and are used below to determine the ownership percentages for the South Crystal 500 kV Switchyard infrastructure facilities such as, but not limited to, the busses, bus protection and metering, steel switchracks and associated concrete works, cable trenches and grounding.

$$\begin{aligned} \text{Los Angeles} &= (0.00/700.00) \times 100\% = 0.0\% \\ \text{Nevada}^{(1)} &= (700.00/700.00) \times 100\% = 100.0\% \\ \text{SRP for United States}^{(2)} &= (0.00/700.00) \times 100\% = 0.0\% \end{aligned}$$

- (1) Nevada owns for the use and benefit of the Participants.
- (2) SRP holds title for the use and benefit of the United States, Department of the Interior (Bureau of Reclamation).
- (3) Nevada owns for the use and benefit of Los Angeles.
- (4) Los Angeles owns its SEL-3530 RTAC device in South Crystal 500 kV Switchyard.

EXHIBIT H

CRYSTAL SUBSTATION COMMON FACILITIES OWNERSHIP PERCENTAGES  
(SOUTH CRYSTAL 500 KV SWITCHYARD PORTION ONLY)

Ownership of the Crystal Substation Common Facilities shall be split between the Crystal 230 kV switchyard (currently 4 terminations), the North Crystal 500 kV switchyard (currently 3 terminations) and the South Crystal 500 kV Switchyard (currently 7 terminations) based on the ratio of the number of terminations in said switchyard to the total number of terminations in both switchyards (currently 14 terminations).

Crystal 230 kV switchyard:  $4/14 = 0.2857$  or 28.57%

North Crystal 500 kV switchyard:  $3/14 = 0.2143$  or 21.43%

South Crystal 500 kV Switchyard:  $7/14 = 0.5000$  or 50.00%

500 kV Ownership Percentages  
for  
South Crystal 500 kV Switchyard Portion  
of  
Crystal Substation Common Facilities

Los Angeles  $(0.00^{(1)}/700.00^{(1)}) \times 100\% = 0.0\%$

Nevada<sup>(2)</sup>  $(700.00^{(1)}/700.00^{(1)}) \times 100\% = 100.0\%$

SRP for United States<sup>(3)</sup>  $(0.00^{(1)}/700.00^{(1)}) \times 100\% = 0.0\%$

(1) Numbers used in the calculation of the South Crystal 500 kV Switchyard ownership percentages are taken from Exhibit G hereto.

(2) Nevada owns for the use and benefit of the Participants.

(3) SRP holds title for the use and benefit of the United States, Department of the Interior (Bureau of Reclamation).