AMENDMENT NO. 6

TO THE

NAVAJO PROJECT

SOUTHERN TRANSMISSION SYSTEM

OPERATING AGREEMENT

By FERC order/notice of acceptance dated \_\_\_\_\_\_ in FERC Docket No. \_\_\_\_\_, this Amendment No. 6 was accepted for filing and the rate schedules became effective on \_\_\_\_\_.

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Execution Original Issued: October 17, 2012

## AMENDMENT NO. 6 TO THE NAVAJO PROJECT SOUTHERN TRANSMISSION SYSTEM OPERATING AGREEMENT

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## AMENDMENT NO. 6 TO THE NAVAJO PROJECT SOUTHERN TRANSMISSION SYSTEM OPERATING AGREEMENT

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PARTIES: The parties to this Operating Agreement are: THE UNITED STATES OF AMERICA, hereinafter referred to as the "United States" or "U.S.," acting through the Secretary of the Interior, his duly appointed successor or his 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. RECITALS: This Amendment No. 6 is made with reference to the following facts, among others:

2.1 On July 23, 1979, the Participants entered into the NAVAJO PROJECT SOUTHERN TRANSMISSION SYSTEM OPERATING AGREEMENT ("Operating Agreement"), as supplemented by Supplement No. 1 and amended by Amendment Nos. 1, 2, 3, 4, and 5, and as may be further supplemented and/or amended, which established certain terms and conditions relating to the operation and maintenance of the Southern Transmission System.

- On April 28, 1998, the Transmission Engineering and Operating 2.2 Committee approved the technical feasibility of the first Westwing 230/69 kV Interconnection at the Westwing 230 kV 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 April 28, 1998. 2.3 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. 2.4 On April 17, 2001, the Transmission Engineering and Operating Committee approved the technical feasibility of a second Westwing 230/69 kV Interconnection at the Westwing 230 kV 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 April 28, 1998 and a discussion update on April 17, 2001.
  - On April 24; 2012 the Transmission Engineering and Operating Committee approved revisions to the table in Section 5.2 of Exhibit K to more accurately reflect the Participants' current Responsibility for Costs for the Southern Transmission Communication System.

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The Participants desire to enter into this Amendment No. 6 to reflect: (i) the addition of two (2) Westwing 230/69 kV Interconnections at the Westwing 230 kV Switchyard; (ii) the addition of a second 500/230 kV transformer at the Yayapai Switchyard; (iii) the interconnection of the new Dugas Switchyard to the Navajo-Westwing 500 kV transmission line; (iv) the

interconnection of the new Cedar Mountain Switchyard to the Moenkopi-Yavapai 500 kV transmission line; (v) a name change for the Waddell 230 kV Interconection to the Raceway 230 kV Interconnection; (vi) the addition of two (2) 500 kV bus reactors in the Westwing 500 kV Switchyard; (vii) the removal of a TEP 500/345 kV transformer from the Westwing Substation; (viii) the removal of Project Series Capacitors from the Navajo 500 kV Switchyard end of the Navajo-Moenkopi 500 kV transmission line; (ix) the addition of two (2) 230 kV bus sectionalizing circuit breakers in the Westwing 230 kV Switchyard; (x) the addition of designated points of delivery for certain Participants; (xi) changes to the descriptions of certain Components of the Transmission System in Exhibit B to reflect the above modifications; (xii) changes to the one line diagrams in Exhibit B-1 to reflect the above modifications; (xiii) modifications to Exhibit K to reflect name changes within the document, changes to the table in Section 5.2 of Exhibit K, and deletion of the K-1 diagram, to accurately reflect the current Southern Transmission Communication System.

- **3.** AGREEMENT: In consideration of the mutual covenants and benefits to be derived from this Amendment No. 6, the Participants agree as follows: **4.** AGREEMENT MODIFICATIONS:
  - 4.1 Section 1, PARTIES, of the Operating Agreement is hereby deleted in its entirety and a new Section 1, PARTIES, is hereby substituted to read in its entirety as follows:
    - \*1. PARTIES: The parties to this Operating Agreement are: THE UNITED STATES OF AMERICA, hereinafter referred to as the "United States" or "U.S.," acting through the Secretary of the Interior, his duly appointed successor or his 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.

Subsection 5.11 of the Operating Agreement is hereby deleted in its entirety and a new Subsection 5.11 is hereby substituted to read in its entirety as follows:

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"5.11 CO-TENANCY AGREEMENT: The Co-Tenancy Agreement executed by and among the Participants, together with all supplements and amendments thereto, by which certain terms and conditions are established relating to their interests in, or their ownership of, the Navajo Project and relating to

their rights and obligations under the Project Agreements."
4.3 Subsection 5.16 in Section 5, DEFINITIONS, of the Operating Agreement is hereby deleted in its entirety and re-numbered to Subsection 5.36 to read in its entirety as follows:
\*5.36 Southern Transmission Communication System: The

communication equipment necessary to control the Southern Transmission System as provided in Section L of Exhibit B to

the Co-Tenancy Agreement and generally described in Exhibit A hereto."

4.4 Subsection 5.22 of the Operating Agreement is hereby deleted in its entirety, re-numbered to Subsection 5.21, and substituted to read in its entirety as follows:

"5.21 OPERATING AGREEMENT: This Navajo Project Southern

- Transmission System Operating Agreement, together with all amendments thereto."
- 4.5 Subsection 5.36, of the Operating Agreement is hereby deleted in its entirety, re-numbered to Subsection 5.35, and substituted to read in its entirety as follows:

"5.35 SECRETARY: The Secretary of the United States Department of Interior."

- 4.6 Subsections 5.17 through 5.35, of the Operating Agreement are hereby renumbered to 5.16 through 5.34 respectively.
- 4.7 Subsection 5.37 of the Operating Agreement is hereby renumbered to 5.38.
- 4.8 Subsection 5.38 of the Operating Agreement is hereby renumbered to 5.37.
- 4.9 Subsection 6.3.1 of the Operating Agreement is hereby deleted in its entirety and a new Subsection 6.3.1 is hereby substituted to read in its entirety as follows:
  - \*6.3.1 Perform Operating Work with the objective of permitting each Participant to transmit power, under normal operating conditions, in amounts equivalent to the product of each Participant's respective cost responsibility in each line segment of the Southern Transmission System and the associated rating (Western Electricity Coordinating Council or its successor approved or Transmission Engineering and Operating Committee approved, as applicable) of such line

segment to each Participant's designated points of delivery in a manner which will not unreasonably affect the operation of the electric systems of the Participants, including the Western Transmission System, and so that when operated in parallel with such systems, the loss of any one circuit of the Southern Transmission System will not cause any other circuit or element of any of the parallel transmission systems of a Participant to carry power in excess of the short-term rating of such parallel transmission system."

4.10 Section 10, MICROWAVE SYSTEM, of the Operating Agreement is hereby deleted in its entirety and a new Section 10 is hereby substituted to read in its entirety as follows: **`1**0.

SOUTHERN TRANSMISSION COMMUNICATION SYSTEM:

10.1 The initial Southern Transmission Communication System described in Exhibit K hereof shall be solely owned by

Arizona in accordance with Section 6.2.6 of the Co-Tenancy Agreement.

Construction Costs of initial or future multiplex 10.2 voice channels installed as part of the Southern Transmission Communication System for the exclusive use of a specified Participant, as provided in Exhibit K hereto, shall be paid for by such Participant. If a future voice channel for a specified Participant necessitates the installation of common group or super group equipment, such equipment will also be paid for by such Participant. The balance of the Construction Costs of the microwave system shall be allocated to and paid for by the Participants in the percentages set forth under "Participants Responsibility For Costs (% Total Costs) " in Exhibit B hereto.

10.3 Capital Improvements to the communication system shall be solely owned by Arizona."

- 4.11 Subsection 12.1.4 of the Operating Agreement is hereby deleted in its entirety and a new Subsection 12.1.4 is hereby substituted to read in its entirety as follows:
  - "12.1.4 The maintenance expenses of the Southern Transmission

Communication System as provided in Exhibit K hereto." 4.12 Subsection 12.1.9.4 of the Operating Agreement is hereby deleted in its entirety and a new Subsection 12.1.9.4 is hereby substituted to read in its entirety as follows:

"12.1.9.4 The costs of maintenance and ad valorem taxes for the Southern Transmission Communication System as provided in Exhibit K hereto."

- 4.13 Subsection 14.2 of the Operating Agreement is hereby deleted in its entirety and a new Subsection 14.2 is hereby substituted to read in its entirety as follows:
  - "14.2 Costs described in Sections 12.1.7, 15, 18, and 19 hereof shall be billed not less than ten (10) business days prior to their due date and shall be due and payable not less than three (3) business days prior to such date. If such expenditures or obligations do not have a specified due date, they shall be billed within a reasonable time following the incurrence of such expenditure or obligation and shall be due and payable within ten (10) business days following receipt of the bill."
- 4.14 Subsections 17.1 and 17.2 of the Operating Agreement are hereby deleted in their entirety and new Subsections 17.1 and 17.2 are substituted to read in their entirety as follows:

"17.1 All proposed expenditures for Capital Improvements, including a contingency allowance for capital expenditures

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if necessitated by an Operating Emergency, shall be included in the annual Capital Improvements budget. After such budget has been approved by the Transmission Engineering and Operating Committee, each Participant shall be obligated for the costs incurred for such Capital Improvements, other than Capital Improvements to the Southern Transmission Communication System, in proportion to its Responsibility for Costs, and each Participant's rights, titles and interests therein, except in other associated components of the Southern Transmission System described in Exhibit A hereto, shall be in proportion to its Responsibility for Costs.

17.2 Construction Costs for Capital-Improvements to the Southern Transmission Communication System shall be paid for by the Participant(s) desiring the Capital Improvement. Construction Costs for Capital Improvements installed for the benefit of the Southern Transmission System shall be allocated to and paid by the Participants in accordance with the percentages set forth under "Participants' Responsibility for Costs (% Total Costs)" in Exhibit B hereto."

4.15 Section 27, EXHIBIT REVISIONS, of the Operating Agreement is hereby deleted in its entirety and a new Section 27 is hereby substituted to read in its entirety as follows:

"27.1 Exhibit B, RESPONSIBILITY FOR COSTS (RFC-%), SOUTHERN TRANSMISSION SYSTEM, shall be revised as appropriate by the Operating Agent upon any change in the configuration of the Southern Transmission System.

27.2 Exhibit K, SOUTHERN TRANSMISSION COMMUNICATION SYSTEM, shall be revised by the Operating Agent upon changes to

"Participants' Responsibility for Costs (% Total Costs)" in Exhibit B, RESPONSIBILITY FOR COSTS (RFC-%), SOUTHERN TRANSMISSION SYSTEM, of this Operating Agreement or upon the addition or removal of voice channels for the Navajo Project or for individual Participants.

27.3 The Operating Agent shall submit each revised exhibit to the Transmission Engineering and Operating Committee for its review and approval, Within thirty (30) days after approval, the Operating Agent shall distribute copies of such approved exhibit(s) to each Participant.
27.4 The effective date of a revised exhibit shall be the

effective in-service date of the new facility, unless otherwise agreed by the Participants. Revised cost responsibility percentages shall be reflected in invoices following the effective date of the revised exhibit(s)."

- 4.16 Exhibit A, COMPONENTS OF THE SOUTHERN TRANSMISSION SYSTEM, to the Operating Agreement is hereby deleted in its entirety and replaced by a new Exhibit A attached hereto and by this reference incorporated herein.
- 4.17 Exhibit B, NAVAJO PROJECT SOUTHERN TRANSMISSION SYSTEM -RESPONSIBILITY FOR COSTS (RFC) AND RECORDED COSTS, to the Operating Agreement is hereby deleted in its entirety and replaced by a new Exhibit B attached hereto and by this reference incorporated herein.
- 4.18 Exhibit B-1A, SCHEMATIC OF RESPONSIBILITY FOR COSTS SOUTHERN TRANSMISSION SYSTEM - TRANSMISSION LINES, to the Operating Agreement is hereby deleted in its entirety and replaced by a new Exhibit B-1A attached hereto and by this reference incorporated herein.

- 4.19 Exhibit B-1B, SCHEMATIC OF RESPONSIBILITY FOR COSTS SOUTHERN TRANSMISSION SYSTEM - NAVAJO 500 KV SWITCHYARD, to the Operating Agreement is hereby deleted in its entirety and replaced by a new Exhibit B-1B attached hereto and by this reference incorporated herein.
- 4.20 Exhibit B-1C, SCHEMATIC OF RESPONSIBILITY FOR COSTS SOUTHERN TRANSMISSION SYSTEM - MOENKOPI SWITCHYARD, to the Operating Agreement is hereby deleted in its entirety and replaced by a new Exhibit B-1C attached hereto and by this reference incorporated herein.
- 4.21 Exhibit B-1D, SCHEMATIC OF RESPONSIBILITY FOR COSTS SOUTHERN TRANSMISSION SYSTEM - WESTWING 500 KV SWITCHYARD AND TRANSFORMER BANKS, to the Operating Agreement is hereby deleted in its entirety and replaced by a new Exhibit B-1D attached hereto and by this reference incorporated herein.
- 4.22 Exhibit B-1E, SCHEMATIC OF RESPONSIBILITY FOR COSTS SOUTHERN TRANSMISSION SYSTEM - WESTWING 230 KV SWITCHYARD, to the Operating Agreement is hereby deleted in its entirety and replaced by a new Exhibit B-1E attached hereto and by this reference incorporated herein.
- 4.23 A new Exhibit B-1F, SCHEMATIC FOR RESPONSIBILITY OF COSTS -SOUTHERN TRANSMISSION SYSTEM - DUGAS SWITCHYARD, attached hereto and by this reference incorporated herein, is hereby appended to the Operating Agreement.
- 4.24 A new Exhibit B-1G, SCHEMATIC FOR RESPONSIBILITY OF COSTS -SOUTHERN TRANSMISSION SYSTEM - CEDAR MOUNTAIN SWITCHYARD AND YAVAPAI SWITCHYARD, attached hereto and by this reference incorporated herein, is hereby appended to the Operating Agreement.

- 4.25 Exhibit B-2, WESTWING 230kV SWITCHYARD SCHEMATIC, to the Operating Agreement is hereby deleted in its entirety.
- 4.26 Exhibit B-3, CALCULATION OF RESPONSIBILITY FOR COSTS (RFC%) -WESTWING 230KV SWITCHYARD AND COMMON FACILITIES, to the Operating Agreement is hereby renumbered as Exhibit B-2.
- 4.27 Exhibit B-4, DERIVATION OF RESPONSIBILITY FOR COSTS (RFC%) -WESTWING 500/230KV TRANSFORMER BANKS, to the Operating Agreement is hereby deleted in its entirety and renumbered as Exhibit B-3.
  4.28 Exhibit K, MICROWAVE SYSTEM - NAVAJO PROJECT SOUTHERN TRANSMISSION SYSTEM, to the Operating Agreement is hereby deleted in its entirety, and replaced by a new EXHIBIT K, attached hereto and by this reference incorporated herein.
- 4.29 Exhibit 1, EXAMPLE OF DISPATCHING ALLOCATION RATIO CALCULATION, to the Operating Agreement is hereby deleted in its entirety and replaced by a new EXHIBIT 1 attached hereto and by this reference incorporated herein.

EFFECT: Except for the changes set forth in this Amendment No. 6, all provisions of the Operating Agreement as amended by Amendment Nos. 1, 2, 3, 4 and 5 shall remain in full force and effect to the extent that such provisions are not in conflict or inconsistent with this Amendment No. 6. In the event of any conflict between the provisions of this Amendment No. 6 and the Operating Agreement as amended by Amendment Nos: 1, 2, 3, 4 and 5, the provisions of this Amendment No. 6 shall govern. EXECUTION AND EFFECTIVE DATE:

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This Amendment No. 6 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. 6 may be detached from any counterpart of this Amendment No. 6

without impairing the legal effect of any signatures thereon, and may be attached to another counterpart of this Amendment No. 6 identical in form thereto, but having attached to it one or more signature pages.

When this Amendment No. 6 to the Co-Tenancy Agreement has been executed by, and delivered to, the duly authorized representative of each Participant, Arizona shall promptly file this Amendment No. 6 with the Federal Energy Regulatory Commission ("FERC") and, if accepted for filing by FERC without condition or modification, this Amendment No. 6 shall be effective as of the date specified by Arizona in the filing letter to FERC.

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In the event FERC conditions or modifies this Amendment No. 6, Arizona shall promptly notify all the other Participants. Upon written notice given within thirty (30) days from the date of Arizona's notice to all other Participants by any Participant that such condition or modification is objectionable, this Amendment No. 6 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. 6 shall become effective the day after such thirty (30) day period. Arizona 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. 6 which amendment shall not require signature by the Participants.

SIGNATURE CLAUSE: Each Participant hereto represents and warrants that the person executing this Amendment No. 6 to the Navajo Project Southern Transmission System Operating Agreement has been duly authorized to act on its behalf. This Amendment No. 6 to the Navajo Project Southern Transmission System Operating Agreement is hereby executed as of the

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	Signature
	Name
	Regional Director Lower Colorado Region Title U.S. Bureau of Reclamation
	Date Signed
	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

SALT RIVER PROJECT AGRICULTURAL

APPROVED AS TO FORM AND LEGALITY MICHAEL N. FEUER, CITY ATTORNEY

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IMPROVEMENT	AND	POWER	DISTRICT

Signature	_•
Name	
Title	
Date Signed	
TUCSON ELECTRIC POWER COMPANY	
Signature	
Name	

Title\_\_\_\_

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Date	Signed	 	

## EXHIBIT A

COMPONENTS OF THE SOUTHERN TRANSMISSION SYSTEM The <u>SOUTHERN TRANSMISSION SYSTEM</u> shall consist of the following Components of the Transmission System;

## NAVAJO 500 KV SWITCHYARD

The Navajo 500 kV Switchyard, a basic breaker-and-a-half scheme, comprising:

- (i) the 500 kV busses and the structures therefor;
- (ii) the control building;
  - (iii) the termination facilities for
    - (a) three (3) generator step-up transformers,
    - (b) one (1) station service transformer,
    - (c) the Navajo-Crystal 500 kV line,
    - (d) the Navajo-Moenkopi 500 kV line, and
    - (e) the Navajo-Dugas 500 kV line,
    - including, but not limited to, power circuit breakers,
    - disconnect switches, and the structures therefor; and
- (iv) relays.

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## NAVAJO-CRYSTAL LINE COMPENSATION

The Project Series Capacitors, Incremental Series Capacitors and shunt reactors on the Navajo 500 kV Switchyard end of the Navajo-Crystal 500 kV line including, but not limited to, the capacitors, control equipment, reactors, surge arrestors, hazard fencing, disconnects, structures and bus work from the switchyard side of the first 500 kV line dead-end tower located outside the switchyard to the attachment on the main switchyard structure. <u>NAVAJO-MOENKOPI 500 KV LINE</u>

The Navajo-Moenkopi 500 kV line, from and including the first 500 kV line dead-end tower outside the Navajo 500 kV Switchyard to a

similar tower location outside the Moenkopi Switchyard and the Navajo-Moenkopi 500 kV line right-of-way.

## NAVAJO-DUGAS-WESTWING 500 KV LINE

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Navajo-Dugas 500 kV Line

The Navajo-Dugas 500 kV line, from and including the first 500 kV line dead-end tower outside the Navajo 500 kV Switchyard to a similar tower location outside the Dugas Switchyard and the portion of the original Navajo-Westwing 500 kV line right-of-way associated with the Navajo-Dugas 500 kV line segment.

The Project Series Capacitors and shunt reactors on the Navajo 500 kV Switchyard end of the Navajo-Dugas 500 kV line including, but not limited to, the capacitors, control equipment, reactors, surge arrestors, hazard fencing, disconnects, structures and bus work from the switchyard side of the first 500 kV line dead-end tower located outside the switchyard to the attachment on the main switchyard structure. The Project Series Capacitors and shunt reactors on the Dugas Switchyard end of the Navajo-Dugas 500 kV line including, but not limited to, the capacitors, control equipment, reactors, surge arrestors, hazard fencing, disconnects, structures and bus work from the switchyard side of the first 500 kV line dead-end tower located outside the switchyard to the attachment on the main

Dugas-Westwing 500 kV Line

The Dugas-Westwing 500 kV line, from and including the first 500 kV line dead-end tower outside the Dugas Switchyard to a similar tower located outside the Westwing 500 kV Switchyard

and the portion of the original Navajo-Westwing 500 kV line right-of-way associated with the Dugas-Westwing 500 kV line segment.

## MOENKOPI-CEDAR MOUNTAIN-YAVAPAI 500 KV LINE

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The Moenkopi-Cedar Mountain 500 kV line from and including the first 500 kV line dead-end tower outside the Moenkopi Switchyard to a similar tower location outside the Cedar Mountain Switchyard and the portion of the original Moenkopi-Westwing 500 kV line right-of-way associated with the Moenkopi-Cedar Mountain 500 kV line segment. The Cedar Mountain-Yavapai 500 kV line from and including the first 500 kV line dead-end tower outside the Cedar Mountain Switchyard to a similar tower location outside the Yavapai Switchyard and the portion of the original Moenkopi-Westwing 500 kV line right-of-way associated with the Cedar Mountain-Yavapai 500 kV line segment.

## OTHER ASSOCIATED COMPONENTS

The additions to the Moenkopi Switchyard comprising:

- (i) the additional 500 kV busses and the structures
  - therefor;
- (ii) the termination facilities for
  - (a) the Navajo-Moenkopi 500 kV line, and
  - (b) the Moenkopi-Cedar Mountain 500 kV line,
  - including, but not limited to, power circuit breakers, disconnect switches, and the structures therefor;
  - (iii) the additions to the termination facilities for
    - (a) the Four Corners-Moenkopi 500 kV line, and(b) the Moenkopi-Eldorado 500 kV line,
      - including, but not limited to, power circuit breakers,

disconnect switches, and the structures therefor; and

(iv) relays.

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The Project Series Capacitors on the Moenkopi Switchyard end of the Navajo-Moenkopi 500 kV line including, but not limited to, the capacitors, control equipment, hazard fencing, disconnects, structures and bus work from the switchyard side of the first 500 kV line dead-end tower located outside the switchyard to the attachment on the main switchyard structure.

3. The Project Series Capacitors and shunt reactors on the Moenkopi Switchyard end of the Moenkopi-Cedar Mountain 500 kV line including, but not limited to, the capacitors, control equipment, reactors, surge arrestors, hazard fencing, disconnects, structures, and bus work from the switchyard side of the first 500 kV line dead-end tower located outside the switchyard to the attachment on the main switchyard structure.

## G. YAVAPAI SWITCHYARD

The Yavapai Switchyard, a basic ring bus 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) the Cedar Mountain-Yavapai 500 kV line, and
    - (c) the Yavapai-Westwing 500 kV line,

including, but not limited to, power circuit breakers,

- disconnect switches, and the structures therefor;
- (iii) relays;

(iv) common facilities; and

 (v) other facilities up to, but excluding the connection to the high-side bushings of the two (2) 500/230 kV transformer banks.

The Yavapai Switchyard common facilities include, but are not limited to, roads, trenches and conduit for system control and power cables, station grounding grid, overhead static shield, fencing and gates, yard lighting, maintenance and control buildings, station batteries, chargers and distribution panels, station power transformers and distribution panels, remote terminal units, digital fault recorders, alarms, annunciators, public address system, communications equipment, and related land or land rights. YAVAPAI-WESTWING 500 KV LINE

The Yavapai-Westwing 500 kV line, from and including the first 500 kV dead-end tower outside the Yavapai Switchyard to a similar tower location outside the Westwing 500 kV Switchyard and the portion of the original Moenkopi-Westwing 500 kV line right-of-way associated with the Yavapai-Westwing 500 kV line segment.

The Project Series Capacitors and shunt reactors on the Westwing 500 kV Switchyard end of the Yavapai-Westwing 500 kV line including, But not limited to, the capacitors, control equipment, reactors, surge arrestors, hazard fencing, disconnects, structures and bus work from the switchyard side of the first 500 kV line dead-end tower located outside the switchyard to the attachment on the main switchyard structure.

#### WESTWING SUBSTATION

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 The Westwing 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) the Yavapai-Westwing 500 kV line,

(b) the Dugas-Westwing 500 kV line,

(c) two (2) 500/230 kV transformer banks,

(d) one (1) 500 kV line to TEP 500/345 kV

substation,

(e) 500 kV bus reactor #1, and

(f) 500 kV bus reactor #2,

including, but not limited to, power circuit breakers, metering transformers, surge arresters, disconnect switches, and the structures therefor;

(iii) relays;

(iv) the control building; and

(v) related land and land rights.

The two (2) Westwing Substation 1494 MVA 500/230 kV transformer banks and spare 498 MVA 500/230 kV transformer to be located within the boundaries of the Westwing 500 kV Switchyard and the equipment associated therewith including, but not limited to, foundations, structures, insulators and hardware, transformer leads from 500 kV bushings to points of termination on the attachments to the 500 kV switchyard structure, and 230 kV leads up to the points of attachment where the 230 kV lines from adjacent facilities attach to the transformer dead-end tower.

Westwing 230 kV Switchyard

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3.1 The original Westwing 230 kV Switchyard (including common facilities), a basic breaker-and-a-half scheme, comprising:

(i) the 230 kV busses and the structures therefor;

(ii) the termination facilities for

(a) two (2) 500/230 kV transformer banks,

(b) one (1) Arizona 230 kV line,

(c) one (1) future Arizona 230 kV line,
(d) two (2) Salt River Project 230 kV lines, and
(e) two (2) United States 230 kV lines,
including, but not limited to, power circuit
breakers, metering transformers, disconnect
switches, insulators and hardware, and the
structures therefor;

(iii) the 230 kV leads between points of attachment on the transformer dead-end towers to the main switchyard structures, and the structures therefor;

(iv) the 230 kV leads up to the points of attachment where the 230 kV transmission lines attach to the main switchyard structures, and the structures therefor;

(v) relays;

(vi) the control building; and

(vii) related land or land rights.

3.2 The 230 kV switchyard common facilities which are described in Exhibit L-1, COMMON FACILITIES COSTS - 230kV SWITCHYARD, attached hereto.

3.3 The Raceway 230 kV Interconnection comprising termination facilities for the Raceway 230 kV transmission line, including, but not limited to, power circuit breakers, metering transformers, disconnect switches, structures, turning tower, take-off structure, insulators and associated hardware, 230 kV conductor from its point of attachment on the first tower located outside the perimeter fence to the turning tower, 230 kV leads between the turning tower and the take-off structure, and the fiber optic cable between

its termination point at the patch panel on the turning tower to the control house. In addition, the termination facilities for the Raceway 230 kV Interconnection shall be deemed to include the remote terminal unit (RTU) installed pursuant to Letter Agreement No. 87-BCA-10084, dated September 3, 1987 between the United States of America, acting by and through the Western Area Power Administration, and the Arizona Public Service Company.

3.4 The two (2) Westwing 230/69 kV Interconnections comprising termination facilities for the two (2) Westwing 230/69 kV transformer banks, including, but not limited to, power circuit breakers, metering transformers, disconnect switches, structures, relays, turning towers, take-off structures, insulators, associated hardware, and 230 kV conductors from their point of attachment on the 230 kV bus to the first towers located outside the perimeter fence.
3.5 The Westwing 230 kV Switchyard Bus Split comprising the two

CEDAR MOUNTAIN SWITCHYARD

The Cedar Mountain Switchyard, a basic ring bus scheme, comprising:

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

(ii) the termination facilities for

(a) the Cedar Mountain-Yavapai 500 kV line,

(b) the Cedar Mountain-Moenkopi 500 kV line, and

(c) the Perrin Ranch Wind Farm 500 kV Interconnection,

including, but not limited to, power circuit breakers, disconnect switches, and the structures therefor;

- (iii) relays; and
- (iv) common facilities.

The Cedar Mountain Switchyard common facilities include, but are not limited to, roads, trenches and conduit for system control and power cables, station grounding grid, overhead static shield, fencing and gates, yard lighting, maintenance and control buildings, station batteries, chargers and distribution panels, remote terminal units, digital fault recorders, alarms, annunciators, public address system, communications equipment, and related land or land rights.

DUGAS SWITCHYARD

Κ.

The Dugas Switchyard, a basic ring bus scheme, comprising:

- (i) the 500 kV busses and the structures therefor;
  - (ii) the termination facilities for
    - (a) the Navajo-Dugas 500 kV line,
    - (b) the Dugas-Westwing 500 kV line, and
    - (c) the APS 500/69 kV transformer bank, including, but not limited to, power circuit breakers, disconnect switches, and the structures therefor;
  - (iii) relays;
  - (iv) common facilities; and
  - (v) other facilities up to, but excluding, the high-side bushings of the 500/69 kV transformer.

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The Dugas Switchyard common facilities include, but are not limited to, roads, trenches and conduit for system control and power cables, station grounding grid, overhead static shield, fencing and gates, yard lighting, maintenance and control buildings, station batteries, chargers and distribution panels, station power transformers and distribution panels, remote terminal units, digital fault recorders, alarms, annunciators, public address system,

communications equipment, and related land or land rights.

L.,

All the communication facilities necessary to control the Southern Transmission System including such facilities located at the Navajo 500 kV Switchyard, the Moenkopi Switchyard, the Cedar Mountain Switchyard, the Yavapai Switchyard, the Dugas Switchyard, and the Westwing Substation, more particularly described in Exhibit K attached hereto.

EXHIBIT B	
NA VAJO PROJECT SOUTHERN TRANSMISSION SYSTEM	
RESPONSIBILITY FOR COSTS (RFC)	

	• •		RESPONSIE	BILITY FOR COS	rs (RFC)*			· .
	COMPONENT	SALT RIVER PROJECT	ARIZONA	TUCSON	NEVADA	LOS ANGELES	UNITED STATES	THIRD PARTIES (1)
TRANSMISS	SION LINES							
С,	Navajo - Moenkopi 500 kV Line	21.7%	14.0%	7.5%		21.2%	24.3%	
D.1 ·	Navajo - Dugas 500 kV Line	38.3%	24.7%	13.3%		- -	23.7%	· .
D.2	Dugas - Westwing 500 kV Line	38.3%	24.7%	13,3%		-	23.7%	-
E.1	Moeakopi - Cedar Mtn 500 kV Line	38.3%	24.7%	13.3%	-	•	23.7%	÷.,
E.2	Cedar Mtn - Yavapai 500 kV Line	38,3%	24.7%	13.3%	•		23,7%	
H.1	Yavap zi - Westwing 500 kV Line	38.3%	24.7%	13.3%	- <i>·</i>	•	23.7%	-
NAVAJO 50	0 kV SWITCHYARD						<u> </u>	U.*
Α.,	Navajo 500 kV Switchy ard	21.7%	14,0%	7.5%	11,3%	21.2%	24.3%	
В.	Navajo-Crystal 500 kV Line Project Series Capacitors and Shunt Reactors		-	· · · ·	26.1%	48.9%	25,0%	-
D.b.1	Navajo-Dugas 500 kV Line Project Series Capacitors and Shunt Reactors	38.3%	24.7%	13.3%			23.7%	-
MOENKOP	1 500 kV SWITCHYARD	· · · · · · · · · · · · · · · · · · ·			**	· ·		
F.1	Moenkopi Termination Facilities	.21.7%	14.0%	7.5%	` 11.3%	21.2%	24.3%	<b>.</b> .
F.2	Navajo-Moeakopi 500 kV Line Project Series Capacitors	21.7%	14.0%	7,5%	11.3% <sub>r</sub>	21.2%	24.3%	
F.3	Moenkopi-Cedar Mountain 500 kV Line Project Series Capacitors and Shunt Reactors	38,3%	24.7%	13.3%	-	· · · ·	23.7%	•
						· · · · · · · · · · · · · · · · · · ·		
YAVAPAI	500 kV SWITCHYARD		· .		• • •			
0:	Yavapai 500 kV Switchyard		100.0%		•	· - ·		• . 
CEDAR M	OUNTAIN 500 kV SWITCHYARD				·		•	
<b>J.</b>	Cedar Mtn 500 kV Switchyard	25.5%	16.5%	8.9%	· · ·		15.8%	33.30%
WESTWIN	G 500 kV SWITCHYARD	· · · ·			<u></u>		1-	
, L1	Westwing 500 kV Switchyard (excludes 500 kV Bus Reactors)	38,3%	24.7%	13,3%			23.7%	· · -
I.I.ii.e	500 kV Bus Reactor #1	21.7%	14.0%	7.5%	11.3%	21.2%	24.3%	·. · -
H.2	Yavapai -Westwing 500 kV Line Project Series Capacitors and Shuat Reactors	38,3%	24.7%	13.3%	-		23,7%	-
I,1.ü.f	500 kV Bus Reactor #2	40.0%	60.0%	-	• •		-	-
OTHER W	JEST WING FACILITIES	•	• • • • • • • • • • • • • • • • • • •	······································	<u> </u>	<u> </u>	- · · · · · · · · · · · · · · · · · · ·	
1.2	Two (2) Westwing Substation 1494 MVA 500/230 kV Transformer Banks (2)	44.2%	28.5%	•	•		27.3%	-

B-1

· · · · · · · · · · · · · · · · · · ·		RESPONSIBILITY FOR COSTS (RFC)*						
COMPONEN	<u>T</u>	SALT RIVER PROJECT	ARIZONA	TUCSON	<u>NEVADA</u>	LOS ANGELES	UNITED <u>STATES</u>	THIRD PARTIES(1)
WEST WING 230 kV SWITCHYARD					· · · · · ·			
I.3.1 Original Westwing 230 kV Swi (excluding 230 kV Common Fa	chyard cilities) (3)	36.1%	32.1%				31.8%	
I.3.2 Westwing 230 kV Switchyard (	Common Facilities	32.0%	28.6%	-	· -	•	39.4%	
I.3.3 Raceway 230 kV Interconnecti		- -	-	-	•• . • .		100.0%	
1.3.4 Westwing 230 / 69 kV Intercor	nections	· · ·	100.0%					
1.3.5 Westwing 230 kV Switchyard	Buș Split ((5))	23.36%	38,42%			· ·-	26.46%	11,76%
DUGAS 500 kV SWITCHYARD K. Dugas 500 kV Switchyard ~	,	-	100.0%					
Navajo-Dugas 500 kV Line Pro D.1.c Cap acitors and Shunt Reactors	vjeut Series	38.3%	24.7%	13,3%	- 1		23.7%	
PARTICIPANT'S RESPONSIBILITY FOR (% of TOTAL COSTS) (6)	eosts -	30.47%	24,81%	11.02%	3,55%	6.66%	23.48%	
<ul> <li>(1) Third Parties shown for</li> <li>(2) Costs calculated from Tota</li> <li>(3) Responsibility For Costs-</li> <li>(4) Responsibility For Costs-</li> <li>(5) Responsibility For Costs-</li> <li>(6)Final % of Total Cost Re</li> <li>* Numbers may not add to 10</li> </ul>	informational purp I Cost using Origina %: See Exhibit B-2 f %: Based on Functio %: Based on functio sponsibility is a w 0% due to rounding	osesonly. Invoic I Westwing 230 kV or derivation. ms, not cost. See I m, not cost. eighted average	ed under separa / Switchyard RF( Exhibit B-2 for de of capital expend	ate agreements, C-%, not Common rivation ditures on NSTS.	Facilities RFC-%.		Original May Rev. 1 Febr Rev. 2 Aug Rev. 3 Janu Rev. 4 July Rev. 5 July Rev. 6 Out	11, 1976 Jary 29, 1988 Jary 29, 1994 Ary 27, 1995 10, 1995 31, 1998 John 1, 2001



Note: item numbers reference components listed in Exhibit B.

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Revised 9/17/12

EXHIBIT B - 1B SCHEMATIC OF RESPONSIBILITY FOR COSTS SOUTHERN TRANSMISSION SYSTEM

# NAVAJO 500 kV SWITCHYARD



Legend

- — Defines limits for Navajo Responsibility for Costs

Note: Item numbers reference components listed in Exhibit B.

Revised 9/17/12

EXHIBIT B – 1C SCHEMATIC OF RESPONSIBILITY FOR COSTS SOUTHERN TRANSMISSION SYSTEM

MOENKOPI SWITCHYARD



Legend

• — • — Defines limits for Navajo responsibility for costs

Note: Item numbers reference components listed in Exhibit B

Revised 9/17/12



B-1D

## EXHIBIT B – 1E SCHEMATIC OF RESPONSIBILITY FOR COSTS SOUTHERN TRANSMISSION SYSTEM

## WESTWING 230 KV SWITCHYARD



J

## EXHIBIT B – 1F SCHEMATIC OF RESPONSIBILITY FOR COSTS SOUTHERN TRANSMISSION SYSTEM

DUGAS SWITCHYARD



Note: Item numbers reference components listed in Exhibit B.

Legend

Defines limits for Navajo Responsibility for Costs

Revised 9/17/12



B-1G

Revised 9/17/12

## EXHIBIT B-2

## CALCULATION OF RESPONSIBILTY FOR COSTS (RFC-%) WESTWING 230KV SWITCHYARD & COMMON FACILITIES NAVAJO PROJECT SOUTHERN TRANSMISSION SYSTEM OPERATING AGREEMENT

# 1. PRIOR TO RACEWAY 230KV INTERCONNECTION ORIGINAL WESTWING 230KV SWITCHYARD

	PARTICIPANT'S	S RFC-%		FUNCTJ	ONS	
COMPONENT	SALT RIVER PROJECT ARIZONA	UNITED STATES	SALT RIVER PROJECT	ARIZONA	UNITED STATES	TOTAL
500/230KV TRANSFORMER BANKS (FROM EXHIBIT B, I.2)	44.2% 28.5%	27.3%	0,884	0.570	.0546	2.000
TRANSMISSION LINES, (SEE EXHIBIT B-1E)				•		· · · · ·
DEER VALLEY, AGUA FRIA	100.0%		2.000	0,000	0.000	2,000
SURPRISE, FUTURE	100.0%		0.000	2.000	Ó.000	2.000
PINNACLE PEAK, LIBERTY		100.0%	0.000	0.000	2.000	2.000
PARTICIPANT'S RFC-% = (A)/(B)=	36.1% 32.1%	31.8%	2.884 (A)	2.570 (A)	2.546 (A)	8.000 (B)
FROM EXHIBIT B, I.3.1, PG2- RFC-% =	36.18	31.8%				

## 2. AFTER RACEWAY 230KV INTERCONNECTION

230KV SWITCHYARD COMMON FACILTIES

	PARTICIPANT'S	RFC-%		FUNCT	IONS	·
COMPONENT	SALT RIVER PROJECT ARIZONA	UNITED. STATES	SALT RIVER PROJECT	ARIZONA	UNITED STATES	TOTAL
500/230KV TRANSFORMER BANKS (FROM EXHIBIT B, I.2)	44.2% 28.5%	27.3%	0.884	0.570	.0546	2.000
TRANSMISSION LINES, (SEE EXHIBIT B-1E)			-			
DEER VALLEY, AGUA FRIA	100.0%		2.000	0.000	0.000	2.000
SURPRISE, FUTURE, (2) WESTWING 230/69kV TRANSMISSION LINES	100.0%	<b>.</b>	0.000	4.000	0.000	4.000
PINNACLE PEAK, LIBERTY, RACEWAY		100.0%	0,000	0.000	3.000	3.000
PARTICIPANT'S RFC-% = (A)/(B)=	36.1% 32.1%	31.8%	2.884 (A)	4.570 (A)	3.546 (A)	11.000 (B)
FROM EXHIBIT B, I.3.2, PG2- RFC-% =	32.0% 28.6%	39.4%		:		

ORIGINAL MAY 12, 1994 REV 1 AUGUST 26, 1994 REV 2 OCTOBER.2, 2012

## EXHIBIT B-3

## DERIVATION OF RESPONSIBILITY FOR COSTS (RFC %) WESTWING 500/230KV TRANSFORMER BANKS NAVAJO PROJECT SOUTHERN TRANSMISSION SYSTEM OPERATING AGREEMENT

NAVADO PROJECT SOUTHERN TRANSMISSION SYSTEM OPERATING AGREEMENT

CALCULATION OF REPONSIBILITY FOR COSTS - % (RFC %) FOR WESTWING 500/230KV TRANSFORMERS 45.0% (A) FROM EDISON-NAVAJQ TRANSMISSION AGREEMENT - UNITED STATES MCCULLOUGH CAPACITY = 250/561 OF ITS NAVAJO POWER ENTITLEMENT (GENERATION ENTITLEMENT SHARE) (B) FROM NAVAJO CO-TENANCY AGREEMENT - UNITED STATES' GENERATION ENTITLEMENT 24.3% SHARE (C) NAVAJO GENERATION STATION = 3 GENERATING UNITS @ 750 MW EA = 2,250 (D) UNITED STATES' GENERATION ENTITLEMENT SHARE = (B) \* (C) = 547 . . (E) UNITES STATES' MCCULLOUGH CAPACITY = (A) \* (D) = 246 (F) UNITED STATES' SOUTHERN TRANSMISSION SYSTEM CAPACITY = (D)-(E)= 301

.

		•			SALT RIVER PROJECT	ARIZONA	UNITED STATES	TOTAL	
(G)	GENERATION	ENTITLEMENT	SHARE =		21.709	t 14.00%			
(H)	SOUTHERN TI FIRM RIGHTS	RANSMISSION : S IN TRANSFO	SYSTEM CA RMER BANK	PACITY = S =	488	3 315	301(F)	1,104 MW	(J.)
	(G) * (C) =		•••••••	· · ·		•			•

(I)	$\begin{array}{l} CALCULATED \\ (H) / (J) = \end{array}$	TRANSFORMER BAN	IKS RFC-2 =	44.28	28.5%	27.3%
•					4- 	
(K)	FROM EXHIB	IT B, I.2, TRANS	FORMER BANKS	44.2%	28.5%	27.3%

• •

RFC-% =

ORIGINAL JUNE 17, 1994 REVISION 1 AUGUST 26, 1994 REVISION 2 OCTOBER 1, 2012

#### EXHIBIT K

# SOUTHERN TRANSMISSION COMMUNICATION SYSTEM NAVAJO PROJECT SOUTHERN TRANSMISSION SYSTEM

 SYSTEM DESCRIPTION: The Southern Transmission Communication System will consist of 1) the backbone microwave system, and 2) the multiplex system. It shall utilize electronic stations on Arizona's Communication system.

1.1 BACKBONE RF SYSTEM DESCRIPTION:

The backbone RF System will include the following: i) RF microwave equipment; ii) all ancillary equipment, including but not limited to DSX crossconnects and power supplies; iii) supervisory alarm and control system; iv) auxiliary power units, fuel tanks, batteries, battery chargers and associated equipment; v) buildings and associated electrical wiring, lighting, and air conditioning equipment; vi) all tower structures, antennas, coaxial cable or waveguide, mounting brackets, and associated equipment; vii) communication site property including acquisition, leveling, grading, fencing and other required improvements; viii) roads required for communication site access; ix) power lines required for station power; and x) any other material and equipment which may be required to implement the backbone RF system.

1.2 MULTIPLEX SYSTEM DESCRIPTION:

2.

The Multiplex System will include the following: i) all voice channel equipment including channel banks, drop and insert units and signal termination equipment; ii) all higher order multiplex equipment including M13's, DACS' or similar equipment; iii) relaying equipment, either digital or tone.

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DETERMINATION OF MAINTENANCE COSTS AND AD VALOREM TAXES:

MAINTENANCE COSTS: Maintenance costs chargeable to the Southern Transmission Communication System shall be the percentage of Arizona's annual total backbone RF and Multiplex Systems maintenance charges as collected by Arizona and determined by dividing the Construction Cost of the RF & Multiplex Systems, including Capital Improvements, by the total capital costs of Arizona's RF & Multiplex Systems; including the capital cost of the RF & Multiplex Improvements thereto. Such capital costs are to be those charged by Arizona, less any capital costs for telemeters, supervisory control equipment charged to such accounts. This percentage is to be estimated at the beginning of each calendar year and used for monthly billings in accordance with this Exhibit K. Monthly billings will be adjusted to the annual percentage as soon as practicable after year end data becomes available.

AD VALOREM TAXES: Ad valorem taxes payable by Arizona on the Southern Transmission Communication System, including Capital Improvements thereto, shall be billed by Arizona at least ten (10) days prior to the due date for such taxes, and payments shall be due from the Participants three (3) days prior to such due date.

MULTIPLEX CHANNELS:

2.1

2;2

3

The capacity of the Southern Transmission Communication System is one (1) DS3 which equates to twenty-3ight (28) DS1's. A DSI consists of twenty four (24) voice channels. The DSI's are allocated as follows: 3.1 SOUTHERN TRANSMISSION COMMUNICATION SYSTEM: The Operating Agent of the Southern Transmission System shall have the right to use the following number of DS1's coincidental to the performance of Operating Work the Southern Transmission System: 3.1.2 Southern Transmission System 1

3.1.3 Southern Transmission System spares 1
3.2 NAVAJO GENERATING STATION: The Operating Agent of the Navajo
Generating Station shall have the right to use ten (10) DS1's
coincidental to the performance of Operating Work of the Navajo
Generating Station.

3.3 WESTERN TRANSMISSION SYSTEM: The Operating Agent of the Western Transmission System shall have the right to use one (1) DS1 coincidental to the performance of Operating Work of the Western Transmission System

3.4

5.

PARTICIPANT CHANNELS: The remaining unused DS1's are available for Participant Private use with the understanding that the requirements of the Southern Transmission System shall supersede Participant use if necessary. Participant private channels will be allocated based on percent ownership of the Navajo Southern Transmission System.

A Participant may use more than their allotted share of channels until the spare DS1's are completely allocated. At that time, Participant(s) will be required to relinquish us of those channels not specifically allocated to them. When a Participant requires additional channels, they must submit a request to Arizona, who will supply the additional channel(s) at the Participant(s) sole cost of materials and installation.

Future DS1 additions will be available to the Participants up to the expansion capacity of the microwave radios, availability of frequencies and excess capacity on the portion of the system that utilizes the Arizona system. Capital costs of the expansion and future maintenance costs will be divided on a percentage basis among the Participants that benefit from the upgrade.

ALLOCATION OF MAINTENANCE COSTS AND AD VALOREM TAXES:

FUTURE MULTIPLEX VOICE CHANNELS:

MAINTENANCE COSTS: Annual maintenance charges and ad valorem taxes shall be allocated to the Participants based on channel usage in the manner provided in this Section 5. It is contemplated the requirements for voice channels for the Navajo Project and the individual Participants will vary from time to time with consequent variation in associated Construction Costs, maintenance costs and ad valorem taxes. The allocation procedure provided in this Exhibit K shall be applied at the end of each calendar year, and the allocation percentages for annual maintenance cost thus developed shall be used for the subsequent twelve (12) months period.

5.1

5.2

DETERMINATION OF PERCENTAGE ALLOCATION: The annual maintenance costs and ad valorem taxes for the Southern Transmission Communication System shall be allocated to the Participants in the percentages developed from time to time in accordance with the following procedure:

		Exhibit	K Table	5.2			
				and the second se			1
Participants	Salt River Project	Arizon	Tueson	Nevada	Los Angeles	United States	Totals
Participants Generation Entitlement Share (A)	21.70%	14.00%	7.50%	11.30%	21.20%	24.30%	100.00
						erseeset.	
Total Number of Channels used by Generating Station ( <b>B</b> )							218.0
	<b>经</b> 纳到16月1日和	19. an 202			den synderede		
Participant's NWTS Entitlement Share ( <b>C</b> )				26.10%	48.90%	25.00%	· 100,00 %
						Sector Sector	
Total Number of Channels used by NWTS <b>(D)</b>			• • • •				7.0
	and the second						
NSTS Participants Responsibility for Costs - (RFC)	30.47%	24.81%	11.02%	3.5 <u>5</u> %	6.67%	23.48%	100.00 _%

		1. Sec. 16	37.68 K.K.				rt Sizes i
Total Number of Channels used by NSTS <b>(PUC)</b>							27.0
		S DE RA	ALEMEN RELIG		P. R. S. K. M.		
Number of Channels used by each	10	36.5	0.5	10	20	0.0	44.0
	4.0				Z,U		44.0
Total Number of Channels used in Microwave System (TECH)	<u>िः ने प्रितिह</u> े २२ व लिमिये स्टब्स्ट्रेक्ट्रिय						296.0
	Cirare Science	2. 通知重新	電路電影				
Participant's Composite Usage Percentage of Total							
Allocation	20.11%	24.90%	6.70%	9.60%	18.05%	20.63%	100.00%
((RFC*PUC)+(A*B)+ (C*D)+CHIP)/TECH	1			,			

### NOTES:

Participant's Generation Entitlement Share taken from Section 5.19 of the Co-Tenancy Agreement.

Participant's Responsibility for Costs (RFC) taken from line entitled "Participant's Responsibility for Costs (% of Total Costs)" on page 2 of Exhibit B, NAVAJO PROJECT SOUTHERN TRANSMISSION SYSTEM - RESPONSIBILITY FOR COSTS (RFC) AND RECORDED COSTS, to this Operating Agreement.

5.3 DETERMINATION OF EACH PARTICIPANT'S SHARE OF MONTHLY COSTS: The composite percentage allocation for each Participant developed

in Section 5.2 hereof shall be multiplied by the applicable total monthly costs for the Southern Transmission Communication

System as established pursuant to Section 2 of this Exhibit K to determine each Participant's share of the Southern Transmission Communication System monthly costs.

REVISIONS OF THIS EXHIBIT K: This Exhibit K shall be initially revised upon completion of construction of the Southern Transmission System and the preparation of the Final Completion Report, and subsequently upon changes to "Participants' Responsibility for Costs (% Total Costs)" in Exhibit B of this Operating Agreement or the addition of voice channels for the Navajo Project or for individual Participants. Any such revisions shall be reviewed and approved by the Transmission Engineering and Operating Committee.

## EXHIBIT 1\*

EXAMPLE OF DISPATCHING ALLOCATION RATIO CALCULATION Substations and/or switching stations with Circuit Switchers and/or Power Circuit Breakers Above 69 kV Being Dispatched by the Operating Agent as of January 25, 2011.

Voltage _kV	115	Т	161 1	Т	230	Ť	325	T	500 1	In Service
Adama	<u></u>	-+		<u> </u>			- 240	┡──╄		
Demis		-+			┉┅╍╍╍╍┥			┝╤╋	+	7/1000
Baydad	*	-		-		-+		<u>↓</u>	;	//1958
BIACK PEAK			<u> </u>	-+		·		┝─┤		7/1954
вискеуе	<u> </u>	÷		·	<u> </u>			┝╌┝		<u> </u>
Cactus	<u>.                                    </u>			ļ-	<u> </u>		·	╞╧┼		1/1908
	Ļ	$\rightarrow$			1 .			$\vdash$		7/1965
Cedar Mtn.	Ļ	$\rightarrow$		$\rightarrow$		<u> </u>	<u> </u>	$\square$	<u> </u>	11/2011
Cholla	L			$\square$	1		1	┟─┤	<u> </u>	//1962
Coconino					1					7/1960
Country Club	ļ <u>.</u>	$ \rightarrow $				Ļ	· ·	1_1		7/1950
Deer Valley	· · ]				1			ĻĹ	<u> </u>	7/1964
Desert Basin	<u> </u>	$\square$		·	· 1	Ļ		Г	I	4/2001
. Dugas		$\square$				ĹĹ		Г	1	11/2009
El Sol	L]			$\Box$	1		· · · · · ·	ĿĨ		7/1960
Fort Rock		_]		ĿŢ	1					7/1978
Four Corners		Ŀ		$\Box$	1		1		1	7/1962
Hoodoo Wash			·		·				1	12/2011
Gila Bend		1_		<u> </u>	. 1	• •	· · · ·	ĿĨ	· · ·	7/1943
Gila River				<u> </u>					1	11/2002
Glendale	<u>  • •  </u>	-		. 1	1	<u> </u>				7/1950
Juniper Mountain		[			1		ļ			7/1970
Leupp					1					7/1958 & 7/1953
Lincoln Street So.			•	1. 1	1.		· · · ·			7/1929
Lone Peak	r1			1	. 1		· · · · · · · · · · · · · · · · · · ·			7/1986
Meadowbrook	1		1 .	$\mathbf{h}$	1		····			7/1958
Milligan .	1 1			<u>í</u>	1	Î I		-		12/2009
Moenkopi			1			1.	ţ	1 .	1	7/1971
Morgan					1	<u> </u>	<u>† – – – – – – – – – – – – – – – – – – –</u>	: .		05/2010
Mural	1						<u> </u>			7/1952
Navajo	<u> </u>		+ · .			1	<u> </u>	1.	1	7/1975
North Gila	1			╞╌┤		1	<del> </del>	1	1	7/1984
Ocotillo	+	'·	ţ	<u>† -                                   </u>	1	1.	<u> </u>	+	<u> </u>	7/1960
Palm Valley	+	<u> </u> .	[	$\vdash$	1	$\mathbf{I}$	†	+		6/2007
Panda	<del>  · ·</del>	$ \vdash $		+	1	+	+	+	1 1	. 14/2002
Pinnacle Peak	<u> </u>	$\vdash$	<u> </u>	+	1	+	1	+	1 1	7/1962 5 2010
Preacher Canyon	+	<u>├</u> ──	<u>  .</u>	$\vdash$	<u> </u>	╉╼╼╴	+ <u>·</u> ···	.+	+	7/1060
RECORD CALLYOIL	- <del> </del>	┢╼┥	<u> </u>		1	17	<u>↓</u>	+	<del> </del>	2021/1
Reach	+	┢─┤		<del> </del>	<u> </u>	1.	+	+		1/2001
Podhavit	· · · ·	-	<u> </u>	$\left\{ - \right\}$	<u> </u>	+	<u>↓</u>	+	1	1/2001 7/2002
REUIGWK	<u>4</u>	<u>.</u>	<u> </u>	1	1 1	÷	<u> </u>	+	<u> </u>	7/1057
Round Valley		* . 	<b> </b>		<u> </u>	<u> </u>	<u> </u>	<u> </u>		1/1957 7/1055
an manuel	+ <sup>⊥</sup>			+	<u> </u>	+	<u></u>	+	<u> </u>	CODE
Sagalebrook Ranch	+ . <u>+ .</u>	<u> </u>	<u> </u>	┝─┤		+	<u> </u>	+.	<u> </u>	2006
Santa Rosa		1	<u> </u>	1		┼╾┙	+	<u> </u>	1	//1965
Saguaro	$\frac{1}{1}$	┥━──	<u> </u>	1		<u> </u>	ļ	+	<u>                                      </u>	//1954 &7/1978
Seiigman) Comp Sta.	1	ŀ	<u> </u>	-		<u> </u>			·	//1963
Sunnyslope	·   · · · · ·	<u> -</u>	ļ	<u> </u>	+ <u>1</u>	1	<u></u>			7/1959
Surprise	4	<u> </u>	ŀ	4	1	1	<u> · ·</u>	<u> </u>	. <u> </u>	7/1980
Tat Momoli	<u> </u> .	<u> </u>	1	<u> </u>	1	<u> </u>	·	<u> </u>	1	7/1972
Verde .		<u> </u>		+	1 1	$\perp$		4		7/1956
West Phoenix		ĻĨ.		$\bot$	1	1.		1		7/1937
Westwing		Ŀ	1 .	Ŀ	1	$\Box$		$\Box$	1	7/1974
White Tanks			:	$\Box$	1	Γ	<u> </u>	$\Box$		7/1968
Willow Lake	<u> </u>	<u> </u>		$\Box$	1	F		$\Box$		7/1950
Yavapai		1		1.	1	1	<u> </u>		1	7/1996
		Γ	1	1	1	1	<u> </u>	T	· · ·	<del>1</del>
Total = D = Sum	6	1+	1 1 .	1.+	38	Ŧ	5	-   +	15	= 65

Allocation Ratio = C/D = (3.5\*\*)/65= .0538 See Section 12.1.8 of this Agreement for cost calculation formula \* This Exhibit 1 is subject to updating from time to time to reflect substation additions and/or retirements. \*\* 1 (Navajo 500) + 2 (Westwing 230 and 500) + 1/2 (Moenkopi 500) = 3.5