

# ALSTON & BIRD LLP

601 Pennsylvania Avenue, N.W.  
North Building, 10<sup>th</sup> Floor  
Washington, DC 20004-2601

202-756-3300  
Fax: 202-756-3333

Bradley R. Miliauskas

Direct Dial: 202-756-3405

Email: bradley.miliauskas@alston.com

October 14, 2005

The Honorable Magalie Roman Salas  
Secretary  
Federal Energy Regulatory Commission  
888 First Street, NE  
Washington, DC 20426

**REDACTED VERSION FOR PUBLIC RELEASE**

**PRIVILEGED INFORMATION CONTAINED IN SEPARATE VOLUME**

**Re: California Independent System Operator Corporation  
Docket No. ER06-\_\_\_\_-000**

Dear Secretary Salas:

Pursuant to Section 205 of the Federal Power Act ("FPA"), 16 U.S.C. § 824d, the California Independent System Operator Corporation ("ISO")<sup>1</sup> submits for Commission filing and acceptance an amendment ("Amendment No. 1") to the amended and restated Metered Subsystem ("MSS") Aggregator Agreement between the ISO and the Northern California Power Agency ("NCPA"). The ISO requests an effective date of December 1, 2005 for this filing.

The ISO filed the original MSS Aggregator Agreement on July 15, 2002 in Docket No. ER02-2321-000, and the Commission conditionally accepted it in *California Independent System Operator Corporation*, 100 FERC ¶ 61,234, at Ordering Paragraph (C) (2002). On September 27, 2002, the ISO submitted a version of that MSS Aggregator Agreement that complied with the Commission's

---

<sup>1</sup> Capitalized terms not otherwise defined herein have the meanings set forth in the Master Definitions Supplement, Appendix A to the ISO Tariff, and in the MSS Aggregator Agreement as amended.

directives, which the Commission accepted by a letter order issued on January 3, 2003. Subsequently, the ISO twice amended that version of the MSS Aggregator Agreement. See Letter Order, Docket No. ER03-1119-000 (Sept. 22, 2003); Letter Order, Docket No. ER04-1020-000 (Sept. 2, 2004). On December 14, 2004, the ISO submitted the amended and restated MSS Aggregator Agreement in Docket No. ER05-333-000, and the Commission accepted it by a letter order issued on February 4, 2005. The MSS Aggregator Agreement is designated as Service Agreement No. 457.

**I. Amendment No. 1**

**A. Purpose of the MSS Aggregator Agreement and Amendment No. 1**

The MSS Aggregator Agreement is applicable to a governmental entity such as NCPA that is acting on behalf of its member agencies and is therefore an aggregator of a number of MSSs. Under the ISO Tariff, a MSS is a "geographically contiguous system located with a single Zone which has been operating as an electric utility for a number of years prior to the ISO Operations Date as a municipal utility, water district, irrigation district, State agency or Federal power administration subsumed within the ISO Control Area and encompassed by ISO certified revenue quality meters on all Generating Units or, if aggregated, each individual resource and Participating Load internal to the system . . . ." The MSS Aggregator Agreement establishes the terms and conditions by which NCPA operates its electric resources within the ISO Control Area, schedules transactions using the ISO Controlled Grid, participates in the ISO's markets, and meets its operational requirements under the ISO Tariff.

Amendment No. 1 has several purposes. First, the amendment contains changes to the MSS Aggregator Agreement to delete references to terminated contracts.<sup>2</sup> Also, Amendment No. 1 modifies the MSS Aggregator Agreement to reflect the creation of a new intertie at the Plumas-Sierra Marble Substation (the "Plumas-Sierra intertie"), between the ISO Control Area and the Control Area of the Sierra Pacific Power Company ("SPPC").<sup>3</sup> Further, Amendment No. 1

---

<sup>2</sup> One of the terminated contracts is the Interim COTP Operations Agreement, which is to be terminated, effective on December 1, 2005, to reflect the transfer of the 500 kV California-Oregon Transmission Project ("COTP") transmission line from the ISO Control Area to the Control Area of the Sacramento Municipal Utility District ("SMUD"). On the same day that the present filing is being submitted, the ISO is submitting a filing to terminate the Interim COTP Operations Agreement.

<sup>3</sup> The creation of the Plumas-Sierra Marble intertie, and the transfer of the 500 kV COTP transmission line described in footnote 2 above, are among several changes to the current ISO Control Area footprint that are scheduled to occur on December 1, 2005. The changes are

modifies the MSS Aggregator Agreement to specify scheduling timelines associated with transmission ownership rights for NCPA as a MSS Aggregator for MSS Operators following their own Load. In addition, Amendment No. 1 modifies the MSS Aggregator Agreement to provide updated information concerning specified contracts, to update Generating Unit information, and to update contact information for notices.

**B. Differences between the Currently Effective MSS Aggregator Agreement and this Amendment No. 1**

The MSS Aggregator Agreement is revised in a number of respects that include the following:

- Section 11.3 is revised to add references to transmission ownership rights comprising NCPA's System.
- Section 11.3, Schedule 1, and Schedule 13 are revised to reflect scheduling accommodations associated with the creation of the Plumas-Sierra intertie and to reflect the termination of specified contracts (as well as the transfer of the 500 kV COTP transmission line to the SMUD Control Area).
- Section 13.2 is revised to modify the provisions therein concerning transmission losses and to delete an exception therein concerning the calculation of a Generation Meter Multiplier.
- Schedule 14 is revised to reflect that the Lodi Gas Turbine is no longer designated as a Reliability Must-Run Unit, to rename the resource identification for the Lake Mendocino Generating Unit, and to update the footnote in Schedule 14 concerning the Lake Mendocino Generating Unit.
- Schedule 15.1 is revised to reflect SPPC as the owner of the new ISO meters at the Plumas-Sierra intertie.
- Schedule 17 is revised to reflect updated contact information for ISO personnel.

### **C. Request for Privileged Treatment**

Included in a separate volume along with this Amendment No. 1, pursuant to Commission Order Nos. 630 and 630-A,<sup>4</sup> is a sealed copy of the non-public portions of the MSS Aggregator Agreement as modified by Amendment No. 1 (specifically, Schedule 6, Schedule 11, including the attachments to Schedule 11, and Schedule 15.1). No changes are being made to Schedules 6 or 11 at this time. The ISO is seeking privileged treatment for these materials under 18 C.F.R. § 388.112 because their public disclosure could impair system operations, unnecessarily reveal sensitive information, and pose significant security problems as to the facilities referenced therein. For these reasons, the ISO submits that these materials should be exempt from public exposure and should be granted privileged treatment.

### **II. Request for Waiver**

The ISO respectfully requests a waiver of the Commission's 60-day prior notice requirement, pursuant to Section 35.11 of the Commission's regulations, 18 C.F.R. § 35.11, to allow the enclosed materials to become effective as of December 1, 2005, as provided in Amendment No. 1. Granting the waiver will permit the changes in Amendment No. 1 to become effective on the same date as the transfer of the 500 kV COTP transmission line to the SMUD Control Area and the anticipated date for the creation of the Plumas-Sierra intertie, as described above in footnotes 2 and 3. Granting the requested waiver, therefore, is appropriate.

### **III. Expenses**

No expense or cost associated with this filing has been alleged or judged in any judicial or administrative proceeding to be illegal, duplicative, unnecessary, or demonstratively the product of discriminatory employment practices.

### **IV. Service**

Copies of this filing have been served on NCPA, the California Public Utilities Commission, the California Electricity Oversight Board, and all entities that are on the official service lists for Docket Nos. ER02-2321, ER03-1119, ER04-1020, and ER05-333. In addition, the filing has been posted on the ISO's website.

---

<sup>4</sup> *Critical Energy Infrastructure Information*, Order No. 630, FERC Stats. & Regs. ¶ 31,140, order on reh'g, Order No. 630-A, FERC Stats. & Regs. ¶ 31,147 (2003).

Enclosed for filing are six copies of each of the following:

- (1) this letter of transmittal;
- (2) the executed Amendment No. 1 (Attachment A);
- (3) the revised MSS Aggregator Agreement, which incorporates the changes contained in Amendment No. 1 and which is in a format that complies with Order No. 614, *Designation of Electric Rate Schedule Sheets*, FERC Stats. and Regs. ¶ 31,096 (2000) (Attachment B); and
- (4) the revised MSS Aggregator Agreement with the changes contained in Amendment No. 1 shown in black-line format (Attachment C).

Also enclosed are two additional copies of this filing to be date-stamped and returned to our messenger.

**V. Correspondence**

The ISO requests that all correspondence, pleadings and other communications concerning this filing be served upon the following:

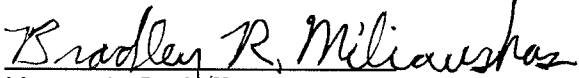
John Anders\*  
Corporate Counsel  
California Independent System  
Operator Corporation  
151 Blue Ravine Road  
Folsom, CA 95630  
Tel: (916) 351-4400  
Fax: (916) 608-7222

Bradley R. Miliauskas\*  
Alston & Bird LLP  
601 Pennsylvania Avenue, NW  
North Building, 10th Floor  
Washington, DC 20004-2601  
Tel: (202) 756-3300  
Fax: (202) 756-3333

\* Individuals designated for service pursuant to Rule 203(b)(3),  
18 C.F.R. § 203(b)(3).

Respectfully submitted,

John Anders  
Corporate Counsel  
California Independent System  
Operator Corporation  
151 Blue Ravine Road  
Folsom, CA 95630

  
Kenneth G. Jaffe  
Bradley R. Miliauskas  
Alston & Bird LLP  
North Building, 10th Floor  
Washington, DC 20004-2601

Attorneys for the California Independent  
System Operator Corporation

CALIFORNIA INDEPENDENT SYSTEM OPERATOR  
AND  
NORTHERN CALIFORNIA POWER AGENCY  
AMENDED AND RESTATED  
NCPA MSS AGGREGATOR AGREEMENT

Issued by: Anthony Ivancovich, Senior Regulatory Counsel  
Issued on: October 14, 2005

Effective Date: December 1, 2005

## ATTACHMENT A



**CALIFORNIA INDEPENDENT SYSTEM OPERATOR  
AND  
NORTHERN CALIFORNIA POWER AGENCY**

**Amendment No. 1 to the Amended and Restated  
NCPA MSS Aggregator Agreement**

**THIS AMENDMENT NO. 1** is dated this 13<sup>th</sup> day of OCTOBER, 2005 and is entered into, by and between:

(1) **Northern California Power Agency**, a joint powers agency organized under the laws of the State of California, having its registered and principal place of business located at 180 Cirby Way, Roseville, California 95678 ("NCPA");

and

(2) **California Independent System Operator Corporation**, a California non-profit public benefit corporation having its principal place of business located in such place in the State of California as the ISO Governing Board may from time to time designate, initially 151 Blue Ravine Road, Folsom, California 95630 (the "ISO").

NCPA and the ISO are hereinafter referred to individually as "Party" or collectively as the "Parties."

**Whereas:**

- A. The Parties are signatories to the Amended and Restated NCPA MSS Aggregator Agreement ("MSSAA"), which was effective January 1, 2005. The Amended and Restated MSSAA replaced the original MSSAA, which was effective September 1, 2002 and was amended by Amendment No. 1 and Amendment No. 2.
- B. The Parties desire to amend the Amended and Restated MSSAA to update Sections 11.3, 13.2, Schedules 1, 13, 14, 15.1 and 17. The revisions (1) accommodate a new non-ISO Controlled Grid intertie point at Marble Substation within the NCPA System, (2) delete references to terminated contracts, (3) specify scheduling timelines associated with transmission ownership rights for NCPA as an MSS Aggregator for MSS Operators following their own Load, (4) update Generating Unit information, and (5) update contact information for Notices.
- C. In all other respects, the Parties intend that the Amended and Restated MSSAA remain in full force and effect in accordance with its terms.

NOW THEREFORE, **THE PARTIES AGREE** as follows:

1. **Effective Date.** This Amendment No. 1 shall be effective on the date made effective by FERC.
2. **Termination.** The provisions of this Amendment No. 1 shall remain in full force and effect, unless subsequently amended, until the termination of the Amended and Restated MSSAA.
3. **Amendment to the Agreement.** The Amended and Restated MSSAA shall be amended as follows:

- 3.1 Section 11.3 "Scheduling Timelines" shall be deleted in its entirety and replaced with the following:

**11.3 Scheduling Timelines.** Except as otherwise specified in this Section 11.3, NCPA's Scheduling Coordinator shall submit all Schedules, including (i) Schedules for the use of its Existing Contracts and Encumbrances, and transmission ownership rights comprising NCPA's System, (ii) Schedules for the use of the ISO Controlled Grid as a new firm use, and (iii) Schedules for the self-provision of Energy and Ancillary Services, within the timelines established by the ISO Tariff. NCPA's Scheduling Coordinator shall not be precluded from making real-time changes if such scheduling capability is afforded NCPA or NCPA Members under Existing Contracts, Encumbrances, or the Settlement Agreement. If NCPA elects to follow its Load as an MSS Aggregator in accordance with Section 8.6, NCPA's Scheduling Coordinator shall have the ability to make changes in its Schedules in accordance with the timelines set forth in Schedule 13 if such scheduling capability is for use of transmission ownership rights in non-ISO Controlled Grid facilities located in the ISO Control Area at a Control Area intertie, provided that this scheduling capability shall be subject to reconsideration in conjunction with the implementation of MRTU in accordance with Section 3.6. Schedule 13 includes any Scheduling timelines required for Existing Contracts and Encumbrances, and transmission ownership rights comprising NCPA's System.

- 3.2 Section 13.2 "Transmission Losses" shall be deleted in its entirety and replaced with the following:

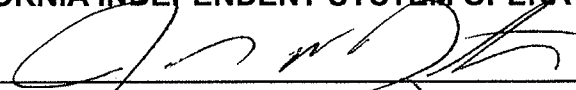
**13.2 Transmission Losses.** NCPA's Scheduling Coordinator shall be responsible for transmission losses, in accordance with the ISO Tariff, only for the delivery of Energy to NCPA's System or from NCPA's System, provided NCPA fulfills its obligation to provide for transmission losses on the transmission facilities forming part of NCPA's System in accordance

with Section 5.5 of this Agreement. A Generation Meter Multiplier ("GMM") shall be assigned to the Generating Units and a Transmission Meter Multiplier ("TMM") shall be assigned to Control Area intertie points that are part of NCPA's System at the Points of Interconnection for use of the ISO Controlled Grid. That GMM and TMM shall be 1.0 for all Generating Units and Control Area intertie points that are part of NCPA's System that are located at or behind a Point of Interconnection, to the extent that the Load at the Point of Interconnection for that portion of NCPA's System exceeds the amount of Generation produced by the Generating Units, plus the amount of any imports from any Control Area intertie, connected to that portion of NCPA's System.

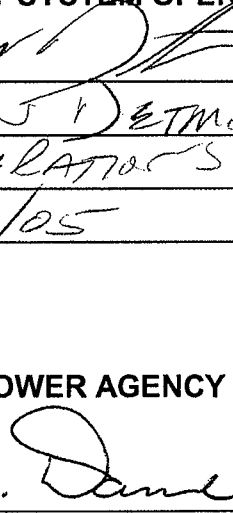
- 3.3 Schedule 1 specifying "NCPA's System Facilities" is deleted in its entirety and the Schedule 1 attached to this Amendment No. 1 is substituted in its place.
- 3.4 Schedule 13 specifying the "Existing Contracts and Encumbrances" is deleted in its entirety and the Schedule 13 attached to this Amendment No. 1, entitled "Existing Contracts, Encumbrances, and Transmission Ownership Rights," is substituted in its place.
- 3.5 Schedule 15.1 specifying "Meter Information" is deleted in its entirety and the Schedule 15.1 attached to this Amendment No. 1 is substituted in its place.
- 3.6 Schedule 17 specifying the contact information for "Notices" is deleted in its entirety and the Schedule 17 attached to this Amendment No. 1 is substituted in its place.
4. This Amendment No. 1 constitutes the complete and final agreement of the Parties with respect to the purpose of this Amendment No. 1 as described in the Recitals hereto and supersedes all prior understandings, whether written or oral, with respect to such subject matter.
5. Except as expressly modified in this Amendment No.1, the Amended and Restated MSSAA shall remain in full force and effect in accordance with its terms, and the unmodified provisions of the Amended and Restated MSSAA shall apply to any new rights and/or obligations established by this Amendment No.1.
6. This Amendment No. 1 may be executed in one or more counterparts at different times, each of which shall be regarded as an original and all of which, taken together, shall constitute one and the same agreement.

IN WITNESS WHEREOF, the Parties have caused this Amendment No. 1 to be duly executed by and through their respective authorized representatives as of the date hereinabove written.

**CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION**

By:   
Name: JAMES W. DETMERS  
Title: VP OPERATIONS  
Date: 10/13/05

**NORTHERN CALIFORNIA POWER AGENCY**

By:   
Name: DONALD B. DAME  
Title: AGM, POWER MANAGEMENT  
Date: 10/13/05

**SCHEDULE 1  
NCPA'S SYSTEM FACILITIES**

**[Section 1.2]**

The following facilities form NCPA's System, including the Points of Interconnection. Points of Interconnection

<b>Member Customer</b>	<b>Point of Interconnection</b>	<b>Voltage (kV)</b>	<b>2002 Normal Delivery Capability (MW)</b>	<b>2002 Coincident Peak Load (MW)</b>	<b>2002 Non – Coincident Peak Load (MW)</b>
Alameda	Oakland Substation C and Oakland Substation J	115 (Both Points)	229	55.2	69.7
Biggs	Biggs Sub (60 kV and 12 kV)	60 and 12	29.2	3.6	3.7
Gridley	Gridley Sub	60	62	8.9	8.9
Healdsburg	Healdsburg Sub	60	30	18.0	18.0
Lodi	Industrial Sub (Lodi Line 1 and Lodi Line 2); White Slough Sub (Lodi White Slough North and Lodi White Slough South); and White Slough Stig <sup>1</sup>	60 (Both Industrial Points)  12 (Both White Slough Sub Points)  230 (White Slough Stig)	124.5	123.9	123.9
Lompoc	Lompoc Sub (Lompoc Line 1 and Lompoc Line 2)	115 (Both Points)	72.5	18.9	24.9
Palo Alto	Colorado Sub (Palo Alto Line 1, Palo Alto Line 2, and Palo Alto Line 3)	115 (All 3 Points)	379	178.9	183.5
Plumas Sierra	Quincy Sub Marble Sub	60 60	28.3	23.2	28.1
Ukiah	Babcock Sub	115	31.4	30.4	30.9
Silicon Valley Power*	Northern Receiving Station (NRS) (Newark-NRS No. 1, Newark-NRS No. 2, and Nortech-NRS); Kifer Receiving Station (Newark-Kifer and FMC-Kifer); and SVP Switching Station (SSS)	115 (All 5 NRS and Kifer Points)        230 (SSS)			

<sup>1</sup> Lodi Wastewater treatment plant load will be served via the Lodi White Slough Stig Interconnection with PG&E, be separately metered, and be included in the normal, coincident and non-coincident load information for Lodi.

Port of Oakland	San Leandro – Oakland “J”, 10286 115-kV for Edes #1 Tap;	115	16.7	7.3	8.0
	Oakland “J” – Grant, 10244 115-kV for Edes #2 Tap; Oakland “C” Maritime Tap; and	115	40	6.4	6.4
	Oakland Army Base Tap	115	40	1.2	1.2

\*The Points of Interconnection listed herein for Silicon Valley Power are governed by the terms of the Silicon Valley Power MSS Agreement with the ISO with respect to the operational and other matters addressed in that agreement.

The interconnection points for all Generating Units listed on Schedule 14 also are Points of Interconnection.

#### Other System Facilities

1. Double Circuit 230 kV line from Collierville to Bellota.
2. NCPA MSS Members’ rights in Transmission Agency of Northern California’s (TANC) ownership of the California-Oregon Transmission Project (COTP), to the extent that a portion of the COTP remains in the ISO Control Area.
3. Two 230 kV lines from Geysers to Castle Rock Junction. NCPA 230 kV No. 1 goes from Plant No. 1 to Lakeville. NCPA 230 kV No.2 goes from Plant No. 2 to Fulton.
4. All facilities listed on Schedule 14 of this Agreement.

**SCHEDULE 13**

**EXISTING CONTRACTS, ENCUMBRANCES AND TRANSMISSION OWNERSHIP RIGHTS**

[Sections 9.1.1 and 11.3]

Existing Contract or Encumbrance	Amount (MW)	Scheduling Timelines	
		To PG&E	To ISO
South of Tesla Principles (SOTP) between PG&E and TANC (PG&E # 143)	102* (81 + 21)	30 min prior to the start of the active hour	In accordance with the ISO Tariff
NCPA System Transmission Ownership Rights in the ISO Control Area at Control Area Interties (and Related Contracts)	Amount (MW)	Scheduling Timelines	
			To ISO
Plumas-Sierra Rural Electric Cooperative transmission ownership rights up to Marble Substation intertie (as described in the ISO's Interconnected Control Area Operating Agreement with Sierra Pacific Power Co. for the Marble Substation intertie)	25	N/A	30 min prior to the start of the active hour
COTP Terminus (as described in the ISO-SMUD Interconnected Control Area Operating Agreement)	382 North to South* (252 + 130) 292 South to North* (192 + 100)	N/A	30 min prior to the start of the active hour

\*The amount of NCPA Members Existing Contracts and Encumbrances, and transmission ownership rights for the COTP Terminus, shown above aggregates NCPA's and SVP's COTP and SOTP rights. Such COTP and SOTP amounts are subject to interim adjustment in accordance with the Settlement Agreement. Interim adjustments shall not require amendment to this Agreement; provided, however, permanent changes to these amounts will be deemed an amendment to this Agreement and shall be given effect in accordance with the Settlement Agreement. The Agreement COTP Terminus transmission ownership rights amounts are contingent upon the direction of the transaction and the California Oregon Intertie rating. The SOTP amounts are contingent upon the availability of unused transmission service rights as further described in the Path 15 Operating Instructions (Appendix B, Transmission Control Agreement, as approved in Docket ER99-1770 and as may be amended or superseded).

Note: Details regarding the agreed upon scheduling provisions for each Existing Contract or Encumbrance are described in the Settlement Agreement.

**SCHEDULE 14**

**GENERATING UNITS AND PARTICIPATING LOADS**

**[Section 10.1]**

NCPA has identified in the attached table all of the individual Generating Units and Participating Loads that it owns or controls on NCPA's System, together with certain information required by the ISO.



Schedule 14

Section 1: Technical Characteristics of Generating Units  
Northern California Power Agency

Name of Facility (Including Unit Number)	QF (Y/N)	RMR (Y/N)	Name of Generating Unit Owner	ISO Resource ID	Type of Unit	Primary Fuel Type	Designed Gross (Nameplate) Capacity 1/ (MW)	Limitations (Reference #)
Alameda Gas Turbine #1	N	Y	NCPA	ALMEGT_1_UNIT 1	Combustion Turbine	Natural Gas	25.40	THERM2
Alameda Gas Turbine #2	N	Y	NCPA	ALMEGT_1_UNIT 2	Combustion Turbine	Natural Gas	25.40	THERM2
Collierville Hydro Aggregate	N	N	NCPA	COLVIL_7_PL1X2	Hydro Aggregate	Water	252.50	HYD1
Collierville Hydro Unit 1	N	N	NCPA		Hydro	Water	126.50	HYD1
Collierville Hydro Unit 2	N	N	NCPA		Hydro	Water	126.00	HYD1
Geothermal Plant 1 - Unit 1	N	N	NCPA	NCPA_7_GP1UN1	Geothermal	Geothermal	55.00	GEO1, 6
Geothermal Plant 1 - Unit 2	N	N	NCPA	NCPA_7_GP1UN2	Geothermal	Geothermal	55.00	GEO2, 6
Geothermal Plant 2 - Unit 3	N	Y	NCPA	NCPA_7_GP2UN3	Geothermal	Geothermal	55.00	GEO4, 7
Geothermal Plant 2 - Unit 4	N	Y	NCPA	NCPA_7_GP2UN4	Geothermal	Geothermal	55.00	GEO5, 7
Graeagle Hydro Project	N	N	Henwood	GRGLHP_6_UNITA1	Hydro			HYD2
Lake Mendocino Hydro Aggregate	N	N	City of Ukiah	UKIAH_7_LAKEMN	Hydro Aggregate	Water	3.50	HYD4
Lake Mendocino Unit 1	N	N	City of Ukiah		Hydro	Water	1.00	
Lake Mendocino Unit 2	N	N	City of Ukiah		Hydro	Water	2.50	
Lodi Gas Turbine	N	N	NCPA	LODI25_2_UNIT 1	Combustion Turbine	Natural Gas	25.40	THERM3
Lodi Steam Injected Gas Turbine	N	N	NCPA	STIGCT_2_LODI	Combustion Turbine	Natural Gas	51.20	THERM4, 5
Spicer Hydro Aggregate	N	N	NCPA	SPICER_1_UNITS	Hydro Aggregate	Water	6.00	HYD3
Spicer Hydro Unit 1	N	N	NCPA		Hydro	Water	2.80	
Spicer Hydro Unit 2	N	N	NCPA		Hydro	Water	2.80	
Spicer Hydro Unit 3	N	N	NCPA		Hydro	Water	0.50	

1/ Current effective values for purposes of scheduling Energy and bidding to provide Energy and/or Ancillary Services in ISO markets may differ from those set forth in this Schedule 1, depending on the results of ISO performance testing pursuant to Sections 2.5.24 and 2.5.25 of the ISO Tariff and Section 9 of the ISO Ancillary Services Requirements Protocol. This and other values are subject to certification by the ISO in accordance with Section 4.3.2 of the Participating Generator Agreement. More detailed Generating Unit operating data must be provided at a time and in a format specified by the ISO in response to ISO requests pursuant to ISO Tariff Sections 5.3 and 5.8.1.

## SCHEDULE 14

### Section 2: Limitations - Thermal Units Northern California Power Agency

Reference #	Description of Limitation
THERM1	Deleted
THERM2	For the Alameda Gas Turbine Units, air emissions permit limits total generation at the Alameda site to 25,800 gross MWhr per year. (ie. Any combination of generation from Alameda Unit 1 and 2 is limited to 25,800 MWhr per year). Annual operating hours limited to 877 hours. Each unit has a minimum off time of 15 minutes.
THERM3	For the Lodi Gas Turbine unit, air emissions permit limits daily operating hours (See Lodi Limitations tab). Unit is limited to 7 gallons of diesel fuel through the starting engine or approximately 2 starts per day. (a failed start counts as a start). Annual operating hours are limited to 877 hours. Unit has a minimum off time of 15 minutes.
THERM4	For the Lodi STIG unit, daily emissions limits are 112 lbs of NOx. At start up, approximately 50 lbs of NOx are emitted over a three to four hour period. After that, the unit emits approximately 3 lbs of NOx per hour at rated capacity. These emissions limits would be reached after 23 hours of operation at the Normal Maximum Operating Limit specified in Section 1 from a single start-up.
THERM5	Lodi STIG 49.9MW net per permit conditons and 1.3MW of parasitic load.

**Lodi Gas Turbine**  
**Additional Limitations based on Generation Levels**

<b>Gross Generation (MW)</b>	<b>Daily Operating Hours</b>
22.2	11
25	10.7
26	10.3
27	9.9
28	9.5

## SCHEDULE 14

### Section 2: Limitations - Hydro Units Northern California Power Agency

Reference #	Description of Limitation
HYD1	For Collierville Hydro, FERC license requirements and California State Fish Game requirements govern Hydro facility operations. Reservoir spills at Elevation of 3370 feet. Reservoir minimum operating elevation of 3318 feet (No spilling allowed). Unit trips at reservoir elevation of 3280 feet. Operations at the minimum operating level of 3-5 mw will be determined by cooling water temperatures. At this time the maximum station ramping rate has been determined to be 25MW/minute based on the CCWD water tap. Unit 1 and 2 will be operated as a single unit with a single resource ID.
HYD2	Graeagle Hydro Project is exempted from NCPA scheduling and ISO metering. When it runs, it will have the effect of reducing load within Plumas Sierra MSS.
HYD3	For Spicer Hydro Plant, FERC license requirements and California State Fish Game requirements govern Hydro facility operations. Minimum elevation for 2.75 MW output is 6560 feet. Maximum elevation is 6610 feet. Minimum elevation to operate is 6488 feet. New Spicer ramp rate (maximum) is 14 hours to full load. New Spicer ramp rate (maximum) from full load to minimum load is 16 hours.
HYD4	Lake Mendocino Hydro is out of service for refurbishment and is inactive within the ISO systems until 30 days advance notice from NCPA.

## SCHEDULE 14

### Section 2: Limitations - Geothermal Units Northern California Power Agency

Reference #	Description of Limitation
GEO1	For Geothermal Plant 1 - Unit 1, Aggregate Geo operations are limited to Confidential Geothermal Operating Plan (see tab)
GEO2	For Geothermal Plant 1 - Unit 2, Aggregate Geo operations are limited to Confidential Geothermal Operating Plan (see tab)
GEO3	Deleted
GEO4	For Geothermal Plant 2 - Unit 3, Aggregate Geo operations are limited to Confidential Geothermal Operating Plan (see tab)
GEO5	For Geothermal Plant 2 - Unit 4, Aggregate Geo operations are limited to Confidential Geothermal Operating Plan (see tab)
GEO6	For Geothermal Plant 1, individual unit ratings for units 1 and 2 are 44 and 42 MW, respectively. When both units are operating, output reduces to 41 and 33 MW, respectively.
GEO7	For Geothermal Plant 2, individual unit ratings for units 3 and 4 are 42.42 and 46.03 MW, respectively. When both units are operating, output reduces to 36 and 33 MW, respectively.
GEO8	Deleted

## SCHEDULE 14

### Section 2: Limitations Northern California Power Agency

#### Geothermal Operating Plan <sup>(4)</sup>

Geothermal Unit	Daily Max <sup>(1)</sup> Operating Cap (MWG)	Daily Min Operating Cap (MWG)	Annual Avg Capacity (MWG)
1	35	35	34
2	35	35	34
3	32	20 <sup>(2)</sup>	30
4	35	20 <sup>(2)</sup>	34
Total	137	110	132-134 <sup>(3)</sup>

<sup>(1)</sup> Daily Max Generation varies as steam field conditions change

<sup>(2)</sup> Single unit operation at minimum Plant 2 load of 20 MW

<sup>(3)</sup> Annual target range set by changes in plant, steamfield, availability factor and market conditions

<sup>(4)</sup> Values indicated are applicable at the time of revision of this MSS Schedule 14. Stated values may vary over time due to natural changes in the steam field conditions that cannot be precisely predicted or forecasted. Values will be revised as necessary upon subsequent revisions to this MSS Schedule 14.

**SCHEDULE 15.1**

**[PRIVILEGED MATERIAL REDACTED PURSUANT TO  
18 C.F.R. § 388.112]**

**SCHEDULE 17**

**NOTICES**

**[Section 19.1]**

**NCPA**

Name of Primary

Representative: Don Dame  
Title: Asst General Manager  
Address: 180 Cirby Way  
City/State/Zip Code: Roseville CA 95678  
Email Address: ddame@ncpa.com  
Phone: (916) 781 - 4207  
Fax No: (916) 781 - 4252

Name of Alternative

Representative: Matt Foskett  
Title: Supervisor Power Contracts  
Address: 180 Cirby Way  
City/State/Zip Code: Roseville CA 95678  
Email Address: matt@ncpa.com  
Phone: (916) 781 - 4217  
Fax No: (916) 781 - 4252



**ISO**

Name of Primary

Representative: Michael D. Dozier  
Title: Lead Contracts Negotiator  
Address: 151 Blue Ravine Road  
City/State/Zip Code: Folsom, CA 95630  
Email Address: mdozier@caiso.com  
Phone: (916) 608-5708  
Fax No: (916) 351-2487

Name of Alternative

Representative: Philip D. Pettingill  
Title: Manager of Infrastructure Policy & Contract Negotiation  
Address: 151 Blue Ravine Road  
City/State/Zip Code: Folsom, CA 95630  
Email Address: ppettingill@caiso.com  
Phone: (916) 608-7241  
Fax No: (916) 351-2264

**ATTACHMENT B**

CALIFORNIA INDEPENDENT SYSTEM OPERATOR  
AND  
NORTHERN CALIFORNIA POWER AGENCY  
AMENDED AND RESTATED  
NCPA MSS AGGREGATOR AGREEMENT

Issued by: Anthony Ivancovich, Senior Regulatory Counsel  
Issued on: October 14, 2005

Effective Date: December 1, 2005

---

---

**CALIFORNIA INDEPENDENT SYSTEM  
OPERATOR**

**AND**

**NORTHERN CALIFORNIA POWER AGENCY**

**AMENDED AND RESTATED  
NCPA MSS AGGREGATOR AGREEMENT**

---

---



**CALIFORNIA INDEPENDENT SYSTEM OPERATOR  
AND  
NORTHERN CALIFORNIA POWER AGENCY**

**AMENDED AND RESTATED  
NCPA MSS AGGREGATOR AGREEMENT**

**THIS AGREEMENT** is dated this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_ and is entered into, by and between:

(1) **Northern California Power Agency**, a joint powers agency organized under the laws of the State of California, having its registered and principal place of business located at 180 Cirby Way, Roseville, California 95678 (“NCPA”);

and

(2) **California Independent System Operator Corporation**, a California non-profit public benefit corporation having its principal place of business located in such place in the State of California as the ISO Governing Board may from time to time designate, initially 151 Blue Ravine Road, Folsom California 95630 (the “ISO”).

NCPA and the ISO are hereinafter referred to individually as “Party” or collectively as the “Parties.”

**Whereas:**

**A.** NCPA and the NCPA MSS Members are engaged in, among other things, generating and transmitting electric power in Northern California, and distributing electric power in the Service Areas of the NCPA MSS Members comprising NCPA’s System, with NCPA serving as the MSS Aggregator for the Metered Subsystem of each NCPA MSS Member;

**B.** The ISO, a NERC or its successor-certified Control Area, is engaged in, among other things, exercising Operational Control over certain electric transmission facilities forming the ISO Controlled Grid, scheduling transactions that utilize those transmission facilities and, operating certain markets, including markets for Imbalance Energy and Ancillary Services, pursuant to the terms of the ISO Tariff and has certain statutory obligations under California law to maintain the reliability of the ISO Controlled Grid, as well as certain NERC and Western Electricity Coordinating Council or its successor (“WECC”)-mandated responsibilities to ensure the reliable operation of the entire electric grid within the ISO Control Area;



- C. NCPA's System is within the ISO Control Area and is interconnected to the ISO Controlled Grid;
- D. NCPA and the NCPA MSS Members desire to continue to operate the generation, transmission and distribution resources of NCPA's System in an integrated manner to reliably serve the Loads of each NCPA MSS Member and also desire, as or through a Scheduling Coordinator, to schedule transactions using the ISO Controlled Grid and participate in the ISO's markets as a buyer and a seller;
- E. The Parties are entering into this Agreement in order to establish the terms and conditions on which (1) NCPA will operate NCPA's System electric resources within the ISO Control Area; (2) NCPA will, as or through a Scheduling Coordinator, schedule transactions using the ISO Controlled Grid and participate in the ISO's markets; and (3) the Parties will meet their obligations under the ISO Tariff, as may be modified by this Agreement, in connection therewith;
- F. NCPA intends to continue to utilize NCPA's System resources to follow the Load of NCPA MSS Members, make economic resource decisions, and the intent of the Parties is that any ISO charges will be charged to NCPA's Scheduling Coordinator based on the principle of cost causation, with due regard for historic considerations, timing and transition issues, and other relevant factors;
- G. In order to maintain the reliability of the interconnected electric systems encompassed by the WECC, the WECC RMS Agreement requires the ISO to require all Generators in its Control Area, including NCPA, to comply with certain WECC reliability criteria and to be subject to penalties imposed by the WECC Reliability Criteria Agreement should they fail to do so, which requirements are set forth in Section 10.4;
- H. NCPA is a specially organized agency under the Constitution of the State of California and utilizes tax-exempt financing for one or more of its projects that restricts the amount of private use of such projects; and
- I. NCPA and the NCPA MSS Members represent that they have a responsibility to serve their customer Loads pursuant to California Public Utilities Code Section 10005.

NOW THEREFORE, in consideration of the mutual covenants set forth herein, **THE PARTIES AGREE** as follows:



## ARTICLE I DEFINITIONS AND INTERPRETATION

- 1.1 Master Definitions Supplement.** Unless defined in the introduction or Section 1.2 of this Agreement, all terms used in this Agreement with initial capitalization shall have the same meaning as those contained in the Master Definitions Supplement to the ISO Tariff.
- 1.2 Special Definitions for this Agreement.** In this Agreement, the following terms shall have the meanings set opposite them:

**“MSS Aggregator”** means NCPA acting as a single MSS Operator on behalf of the multiple, non-contiguous Metered Subsystems of the NCPAB members and on behalf of SVP to the extent agreed upon between NCPA and SVP for implementation of SVP’s individual MSS agreement.

**“NCPA’s System”** means all transmission and distribution facilities owned or controlled by the NCPA MSS Members, and all Generating Units within the ISO Control Area owned or controlled by NCPA Members. A description of the Generating Units and Points of Interconnection comprising NCPA’s System is set forth in Schedule 1 and Schedule 14.

**“NCPA Members”** means NCPA MSS Members and Roseville.

**“NCPA MSS Members”** means NCPAB members and SVP.

**“NCPAB”** means those MSS Operator entities identified in Schedule 18 that will be bound under this Agreement.

**“Point of Interconnection”** means any point at which the Generating Units and Service Areas of the NCPA MSS Members that are part of NCPA’s System are directly interconnected with the ISO Controlled Grid or with any other portion of the interconnected electric grid in the ISO Control Area. The initial Points of Interconnection are described in Section 4.1.

**“Replacement IA”** means the Interconnection Agreement between NCPA and PG&E that replaces the NCPA-PG&E Interconnection Agreement designated as PG&E Rate Schedule FERC No. 142.

**“Roseville”** means the City of Roseville, which has joint ownership of generation facilities operated and scheduled by NCPA for the NCPA Members.

**“Settlement Agreement”** means the Settlement Agreement Among Pacific Gas and Electric Company, Northern California Power Agency, Silicon Valley Power of Santa Clara, California, the City of Roseville, California and the California



Independent System Operator Corporation in FERC Dockets ER01-2998-000, ER02-358-000, and EL02-64-000, as accepted by FERC.

“**SVP**” means Silicon Valley Power, which has signed an individual MSS agreement with the ISO, but will have NCPA act as Scheduling Coordinator on its behalf, including implementation of such individual MSS agreement as may be agreed upon between NCPA and SVP.

“**Under Frequency Load Shedding**” or “**UFLS**” means automatic Load Shedding, accomplished by the use of such devices as under frequency relays, intended to arrest frequency decline and assure continued operation within anticipated islands.

**1.3 Rules of Interpretation.** The following rules of interpretation and conventions shall apply to this Agreement:

- (a) the singular shall include the plural and vice versa;
- (b) the masculine shall include the feminine and neutral and vice versa;
- (c) “includes” or “including” shall mean “including without limitation”;
- (d) references to a Section, Article or Schedule shall mean a Section, Article or a Schedule of this Agreement, as the case may be, unless the context otherwise requires;
- (e) any reference to the ISO Tariff or any provision of the ISO Tariff will mean a reference to the ISO Tariff or provision then in effect as modified during the term of this Agreement, unless otherwise specifically provided;
- (f) unless the context otherwise requires, references to any law shall be deemed references to such law as it may be amended, replaced or restated from time to time;
- (g) unless the context otherwise requires, any reference to a “person” includes any individual, partnership, firm, company, corporation, joint venture, trust, association, organization or other entity, in each case whether or not having separate legal personality;
- (h) unless the context otherwise requires, any reference to a Party includes a reference to its permitted successors and assigns;
- (i) any reference to a day, week, month or year is to a calendar day, week, month or year;



- (j) the captions and headings in this Agreement are inserted solely to facilitate reference and shall have no bearing upon the interpretation of any of the terms and conditions of this Agreement; and
- (k) all references to "NCPA" herein shall be deemed to refer to both NCPA and the NCPA MSS Members.

## ARTICLE II TERM AND TERMINATION

**2.1 Effective Date.** This Agreement shall be effective as of the date it is accepted for filing and made effective by FERC, and shall remain in full force and effect until terminated pursuant to Section 2.2 or upon such other date as the Parties shall mutually agree.

### **2.2 Termination**

**2.2.1 Termination by Default.** Either Party (the terminating Party) may terminate this Agreement by giving written notice of termination in the event that the other Party (the defaulting Party) commits any default under this Agreement or the applicable provisions of the ISO Tariff which, if capable of being remedied, is not remedied within 30 days after the terminating Party has given the defaulting Party written notice of the default, unless excused by reason of Uncontrollable Forces under Article XVIII of this Agreement.

**2.2.2 Termination on Notice.** Either Party shall have the right to terminate this Agreement in accordance with this Section 2.2.2, subject to the procedural requirements set forth in Section 2.2.3. Either Party may terminate this Agreement by giving the other Party written notice at least six (6) months in advance of the intended effective date of termination. The ISO's right to terminate this Agreement in accordance with this Section 2.2.2 shall arise only after December 31, 2004.

**2.2.3 Filing.** With respect to any notice of termination given pursuant to this Section, the ISO must file a timely notice of termination with FERC. The filing of the notice of termination by the ISO will be considered timely if: (1) the request to file a notice of termination is made after the preconditions for termination have been met, and (2) the ISO files the notice of termination within 30 days of receipt of such request from NCPA or issuance of its own notice of termination. This Agreement shall terminate upon the date on which the notice of termination is permitted by FERC to become effective.

### ARTICLE III GENERAL TERMS AND CONDITIONS

- 3.1 Scope of Agreement.** Except as specifically provided otherwise, the provisions of this Agreement will apply only with respect to the facilities comprising NCPA's System, the facilities of NCPA MSS Members, and Loads and Generating Units of NCPA MSS Members directly connected only to NCPA's System. To the extent NCPA MSS Members have entitlements to Generating Units with Third Parties, this Agreement does not apply to such Third Parties. For the purposes of this Section 3.1, "Third Party" means any party other than NCPA, NCPA MSS Members, and the ISO. Subject to the terms of Article II, this Agreement shall not affect NCPA or NCPA MSS Members' ability to join or establish another Control Area or NCPA's right to exercise any available legal recourse to obtain or confirm that it possesses other forms of transmission rights.
- 3.2 ISO and NCPA Responsibilities.**
- 3.2.1 ISO Responsibility.** The Parties acknowledge that the ISO is responsible for the efficient use and reliable operation of the ISO Controlled Grid and the operation of the ISO's Control Area consistent with achievement of planning and Operating Reserve criteria no less stringent than those established by the WECC and NERC and in accordance with the ISO Tariff and further acknowledge that the ISO may not be able to satisfy fully these responsibilities if parties to agreements with the ISO, including NCPA, fail to comply fully with all of their obligations under those agreements.
- 3.2.2 NCPA Responsibility.** The Parties acknowledge that NCPA has a legal obligation to act in the best interests of all its member agencies that are signatories to the NCPA Joint Powers Agreement. The Parties further acknowledge that NCPA member agencies that are not signatories to MSS agreements with the ISO may have legal rights to the use and output of Generating Units and transmission facilities owned or controlled by NCPA and that these rights cannot be altered or diminished by this Agreement.
- 3.3 Relationship Between Agreement and ISO Tariff**
- 3.3.1** If and to the extent a matter is specifically addressed by a provision of this Agreement (including any schedules or other attachments to this Agreement), the provision of this Agreement shall govern notwithstanding any inconsistent provision of the ISO Tariff and, except as provided in Section 3.3.2, any ISO Tariff provision that is referenced in this Agreement.
- 3.3.2** If and to the extent this Agreement provides that a matter shall be determined in accordance with the applicable provisions of the ISO Tariff, the applicable provisions of the ISO Tariff shall govern.



- 3.3.3** Except as provided in Section 3.3.1, NCPA shall, with respect to the operation of any of the Generating Units listed in Schedule 14, comply with the requirements applicable to Participating Generators under Article 5 of the ISO Tariff and all other provisions of the ISO Tariff governing Participating Generators. Nothing in this Agreement shall obligate NCPA to execute, except as already executed, a Participating Generator Agreement with respect to any NCPA Generating Unit.
- 3.3.4** Except as provided in Section 3.3.1, NCPA shall, with respect to the operation of any Load listed in Schedule 14, comply with the requirements applicable to Participating Loads under Article 5 of the ISO Tariff and all other provisions of the ISO Tariff governing Participating Loads. Nothing in this Agreement shall obligate NCPA to execute a Participating Load Agreement with respect to the Load of any NCPA MSS Member.
- 3.3.5** Except as provided in Section 3.3.1, NCPA shall, with respect to the operation of the distribution facilities belonging to any NCPA MSS Member, comply with the requirements applicable to Utility Distribution Companies under Article 4 of the ISO Tariff. Nothing in this Agreement shall obligate NCPA or any NCPA MSS Member to execute a UDC Operating Agreement.
- 3.3.6** The applicability of any provision of the ISO Tariff to NCPA, including as provided in Sections 3.3.1 through 3.3.5, inclusive, shall, in the event of a dispute between the Parties, be determined through the ISO ADR Procedures in accordance with Article 13 of the ISO Tariff.
- 3.3.7** Nothing in this Agreement shall preclude NCPA from becoming a Participating TO by executing the TCA and fulfilling all other applicable requirements. If NCPA becomes a Participating TO, it shall comply with the requirements applicable to Participating TOs under Article 3 of the ISO Tariff or any settlement of FERC Docket No. ER00-2019.
- 3.3.8** This Agreement shall serve, with respect to NCPA, as the written agreements required by Sections 4.1.1, 5, 10.3.1, 23.1.1, and 23.4 of the ISO Tariff and the written agreement required for Participating Loads.

#### **3.4 Amendment to Agreement**

- 3.4.1** Except with respect to the ISO's rights set forth in Section 3.4.2 of this Agreement, this Agreement may be modified only by mutual written agreement between the Parties. Amendments that require FERC approval shall not take effect until FERC has accepted such amendments for filing and made them effective. This shall not modify NCPA's or the ISO's rights under Section 206 of the Federal Power Act.
- 3.4.2** The ISO shall have the right to apply unilaterally under Section 205 of the Federal Power Act to change the rates, terms, and conditions under this Agreement for services provided to NCPA. In proposing any changes, unless in

response to a FERC order as provided in Section 3.7, the ISO will consider the principles in this Agreement as detailed in Section 3.5.2. Additionally, unless in response to a FERC order as provided in Section 3.7, any changes proposed by the ISO shall be subject to the following:

- 3.4.2.1** The ISO shall provide NCPA 30 days advance written notice of such change.
  - 3.4.2.2** The ISO shall meet and confer with NCPA regarding the change, provided that the scheduling of such meeting shall not be unreasonably delayed.
  - 3.4.2.3** NCPA may waive these requirements upon written request by the ISO.
  - 3.4.2.4** The ISO shall provide NCPA with a copy of the FERC filing if, and when, made.
- 3.4.3** In addition to changes that may otherwise be contemplated by Section 3.6 or Section 3.7, the Parties recognize that their responsibilities and operations may change during the term of this Agreement. The Parties agree that, in the event any such change substantially affects the allocation of rights, responsibilities, and obligations between the Parties under this Agreement, the Parties, while continuing to honor the terms and conditions of this Agreement, will make good faith efforts to negotiate an appropriate amendment to this Agreement and shall endeavor in that process to restore that allocation.
- 3.5 Amendment to ISO Tariff.**
- 3.5.1** Nothing in this Agreement shall affect in any way the authority of the ISO to modify unilaterally the ISO Tariff in accordance with Section 19 of the ISO Tariff or of the ISO and NCPA to exercise their rights under the Federal Power Act or any other law or to pursue any legal remedies.
  - 3.5.2** In making amendments to the ISO Tariff as provided in Section 3.5.1, the ISO will consider the impact on Metered Subsystems and the principles reached in this Agreement, including but not limited to:
    - 3.5.2.1** **Cost Causation:** The intent of the Parties is that ISO charges will be charged to the Scheduling Coordinator for the MSS Operator, based on the principle of cost causation, with due regard for historic considerations, timing and transition issues, and other relevant factors.
    - 3.5.2.2** **Load Following Capability:** NCPA desires to maintain Load following capability to match the Loads of the NCPA MSS Members, and to make economic resource decisions with the resources in NCPA's portfolio.

- 3.5.2.3** Compatibility of Market Participants: For efficient use of transmission facilities and to decrease Congestion, the ISO desires that all Market Participants operate using similar rules and Scheduling timelines.
- 3.6 Market Redesign and Technology Upgrade.** The ISO is in the process, simultaneously with the negotiations of this Agreement, of redesigning the ISO's markets ("MRTU"). To the extent possible, the components of MRTU that impact Metered Subsystems will be incorporated in this Agreement. If components of the MRTU design are not known until after the execution of this Agreement, the Parties agree to amend this Agreement in accordance with Sections 3.4 and 3.5.2.
- 3.7 Changes to Conform To FERC Orders.** Nothing in this Article III shall be interpreted to limit the ISO's right to modify the ISO Tariff or this Agreement to comply with or conform to any FERC order.

#### **ARTICLE IV INTERCONNECTION**

- 4.1 Points of Interconnection.** The Points of Interconnection are described in Schedule 1. Additional Points of Interconnection may be established only by mutual agreement of the Parties, for which consent shall not unreasonably be withheld.
- 4.2 Interconnection Operation Standards.** The ISO and NCPA shall maintain stable established operating parameters and control power and reactive flow within standards stated in Schedule 2.
- 4.3 Operation, Maintenance, and Load Serving Responsibilities.** NCPA shall operate and maintain all facilities forming any part of NCPA's System, and shall be responsible for the supply of the Energy and Ancillary Services required to reliably provide electric service to the Loads connected to NCPA's System as described in Section 3.1 within the ISO Control Area in accordance with Applicable Reliability Criteria, including WECC and NERC criteria.
- 4.4 Expansion, Retirement, and Modification of Facilities.** NCPA shall coordinate with the ISO in the planning and implementation of any expansion, retirement, or modification of those facilities forming parts of NCPA's System that are identified in Schedule 1, replacements for such facilities, and other facilities forming parts of NCPA's System that serve similar functions or that otherwise will or may significantly affect the Points of Interconnection, and shall provide sufficient advance notice to enable the ISO to conduct any necessary studies. The Parties will amend Schedule 1, as necessary, should a new Point of Interconnection be established in accordance with Section 4.1.



## **4.5 Installation of Facilities and Rights of Access**

- 4.5.1** Pursuant to Schedule 3, the Parties shall permit one another, on reasonable notice and with mutual agreement in each case, to install equipment or have installed equipment or other facilities on the property of the other Party to enable the installing Party to meet its service obligations, unless doing so would negatively impact the reliability of service provided by the owning Party. Unless otherwise agreed, all costs of installation shall be borne by the installing Party.
- 4.5.2** A Party installing equipment on the property of the other Party shall be granted, free of charge, reasonable rights of access to inspect, repair, maintain and upgrade that equipment. Access shall be provided only on prior notice and such access shall not be unreasonably withheld.
- 4.5.3** Notwithstanding any other provision in this Section 4.5, NCPA shall provide the ISO with access for inspection or audit, to any equipment or other facilities of NCPA's System listed in Schedule 1, the operation of which affects any Point of Interconnection or the ISO Controlled Grid, without prior notice during normal working hours, 8:00 a.m. to 5:00 p.m. Monday through Friday, excluding NERC defined holidays. For access for inspection or audit during times outside of normal working hours, the ISO shall provide NCPA with one (1) Business Day advance notice. A shorter advance notice time may be attained subject to mutual agreement of the Parties. An NCPA Supervisor is to be present at anytime access is granted, to any equipment or other facilities of NCPA's System, the operation of which affects any Point of Interconnection or the ISO Controlled Grid.

## **ARTICLE V OPERATIONS**

### **5.1 Outages**

- 5.1.1** NCPA shall coordinate Outages of Generating Units and transmission facilities, including the Points of Interconnection, constituting parts of NCPA's System with the owners of the transmission facilities with which NCPA's System is interconnected so that each of those owners can take those Outages into account in coordinating maintenance of its transmission facilities with the ISO.
- 5.1.2** NCPA shall schedule with the ISO on an annual basis, pursuant to Schedule 4, any Maintenance Outages of the equipment included in Schedule 1, and shall coordinate the Outage requirements of NCPA's System with the Participating TO with which NCPA's System is interconnected.
- 5.1.3** Notwithstanding anything to the contrary in this Agreement, to the extent required by any valid law, regulation or order issued by any state or federal authority having jurisdiction over NCPA or NCPA's System, which law, regulation or order applies to entities that have executed a written undertaking required by Section 5



of the ISO Tariff, NCPA shall coordinate Outages of Generating Units and transmission facilities constituting parts of NCPA's System with the ISO, pursuant to any generally applicable program established by the ISO to implement such law, regulation or order.

- 5.2 Safety and Reliability.** NCPA shall operate and maintain NCPA's System in accordance with applicable safety and reliability standards, WECC and NERC requirements, regulatory requirements, operating guidelines, and Good Utility Practice so as to avoid any material impact on the ISO Controlled Grid. Without limiting the foregoing, NCPA shall operate and maintain NCPA's System, during normal and System Emergency conditions, in compliance with NCPA's Emergency Action Plan ("EAP") and the requirements applicable to Utility Distribution Companies in ISO Operating Procedures and standards. In the event any such ISO Operating Procedure or standard is revised to modify the requirements applicable to Utility Distribution Companies, the Parties shall comply with such revision.
- 5.3 Critical Protective Systems.** NCPA will coordinate with the ISO, PG&E, and any Generators on NCPA's System to ensure that ISO Controlled Grid Critical Protective Systems, including relay systems and other systems described in Schedule 5, are installed and maintained in order to function in a coordinated and complementary fashion with protective devices installed by NCPA, PG&E, and Generators. NCPA shall notify the ISO as soon as is reasonably possible of any condition that it becomes aware of that may compromise or affect the operating safety and reliability of the ISO Controlled Grid Critical Protective Systems, including the systems described in Schedule 5.
- 5.4 Single Point of Contact.** The ISO and NCPA shall each provide a single point of contact on a 24-hour, 7-day basis for the exchange of operational procedures and information. In the case that NCPA is also a Participating TO, there may be only one single point of contact required and, in the reasonable discretion of the ISO, duplicative reporting requirements and functions may be waived. The initial points of contact are set forth in Schedule 6. A Party must update the information in Schedule 6 as the information changes. Changes to Schedule 6 shall not constitute an amendment to this Agreement.
- 5.5 Transmission Losses, Outages, and Congestion.** NCPA shall be responsible for transmission losses within any NCPA MSS Member's Service Area and to any Points of Interconnection. In addition, NCPA shall be responsible for transmission line Outages and transmission Congestion within any NCPA MSS Member's Service Area. This Section 5.5 does not affect Congestion on the ISO Controlled Grid, which shall be managed in accordance with the ISO Tariff.

## ARTICLE VI INFORMATION SHARING

- 6.1 Forecasts.** NCPA shall provide to the ISO annually its ten-year forecasts of Demand growth, internal Generation, and expansions of or replacements for those transmission facilities that are part of NCPA's System identified in Schedule 1 and other transmission facilities that are part of NCPA's System that serve similar functions or that otherwise will or may significantly affect any Point of Interconnection. Such forecast shall be provided on the date that Utility Distribution Companies are required to provide similar forecasts in accordance with the ISO Tariff, which is currently October 15. The ISO shall notify NCPA of any changes in this date. Peak Demand forecasts for NCPA MSS Members shall be submitted weekly by NCPA's Scheduling Coordinator and monthly in accordance with the ISO Demand Forecasting Protocol, or biannually as part of the ISO's summer and winter assessment process, as agreed by the Parties.
- 6.2 System Surveys and Inspections.** NCPA and the ISO shall cooperate to perform system surveys and inspections of facilities at or near the Points of Interconnection that may significantly affect the facilities of the other Party.
- 6.3 Maintenance Schedules.** NCPA shall provide the ISO on an annual basis with a schedule of planned maintenance of those generation and transmission facilities identified in Schedule 1, and other transmission facilities serving a similar function or which otherwise would significantly affect the ISO Control Area in accordance with Schedule 4. NCPA and the ISO shall also maintain records of the Maintenance Outages scheduled by NCPA on such facilities and their actual duration.
- 6.4 Reliability Information.** NCPA and the ISO shall each have the obligation to inform the other Party, as promptly as possible, of any circumstance of which it becomes aware (including, but not limited to, abnormal temperatures, storms, floods, earthquakes, and equipment depletions and malfunctions and deviations from Registered Data and operating characteristics) that is reasonably likely to threaten the reliability of the ISO Controlled Grid or the integrity of NCPA's System respectively. NCPA and the ISO each shall also inform the other Party as promptly as possible of any incident of which it becomes aware (including, but not limited to, equipment outages, over-loads or alarms) which, in the case of NCPA, is reasonably likely to threaten the reliability of the ISO Controlled Grid, or, in the case of the ISO, is reasonably likely to adversely affect NCPA's System. Such information shall be provided in a form and content which is reasonable in all the circumstances, sufficient to provide timely warning to the other Party of the threat and, in the case of the ISO, not unduly discriminatory with respect to the ISO's provision of similar information to other entities.
- 6.5 Major Outage Reports.** NCPA shall promptly provide such information as the ISO may reasonably request concerning NCPA's operation of NCPA's System to enable the ISO to meet its responsibility under the ISO Tariff to conduct reviews





and prepare reports following major Outages. Where appropriate, the ISO will provide appropriate assurances that the confidentiality of commercially sensitive information shall be protected. The ISO shall have no responsibility to prepare reports on Outages that affect customers on NCPA's System, unless the Outage also affects customers connected to the system of another entity within the ISO Control Area. NCPA shall be solely responsible for the preparation of any reports required by any governmental entity or the WECC with respect to any Outage that affects solely customers on NCPA's System.

## **6.6 Annual Reviews and Reports**

- 6.6.1** The ISO shall make available to NCPA any public annual reviews or reports regarding performance standards, measurements or incentives relating to the ISO Controlled Grid that the ISO makes available to MSS Operators and Participating TOs.
- 6.6.2** NCPA shall make available to the ISO any public annual reviews or reports regarding performance standards, measurements or incentives relating to NCPA's System that may affect the ISO Control Area.
- 6.6.3** The ISO and NCPA shall jointly develop any necessary forms and procedures for collection, study, treatment, and transmittal of system data, information, reports and forecasts.
- 6.7** NCPA shall install and maintain direct telemetry links to the ISO's EMS system to provide real-time data to the ISO, including but not limited to Generation output, line and transformer flows at the NCPA Points of Interconnection, and bus voltages at the NCPA Points of Interconnection and at each Generating Unit, subject to any exemption available in accordance with the ISO Tariff. Additional data points to be transmitted to the ISO EMS system will be mutually agreed by the ISO and NCPA.

## **ARTICLE VII EMERGENCY OPERATIONS**

### **7.1 In General.**

Except with respect to Sections 7.4.3, 7.4.4, 7.5.1, and 7.5.2 and provisions regarding NCPA's UFLS program, or unless NCPA is short of resources to meet its forecasted Demand, as determined in accordance with Section 4.5.3 of the ISO Tariff, the terms of this Article VII shall only apply during a System Emergency that is not a result of a deficiency of resources to serve Loads in the ISO Control Area but instead occurs due to operating contingencies, which may include but not be limited to forced loss of resources and/or transmission components or may otherwise be caused by an Uncontrollable Force, as further



described in Attachment B to the NCPA EAP. NCPA shall have an “Emergency Action Plan” (“EAP”) approved by the ISO and on file with the ISO, which EAP shall be attached to Schedule 11. The EAP shall include the operational steps NCPA on behalf of the NCPAB Members shall take during System Emergencies, when the ISO implements its System Emergency-related Operating Procedures.

Under the direction of the ISO, NCPA shall follow all instructions as they pertain to the ISO’s System Emergency-related Operating Procedures, including actions to be taken by NCPA with respect to Generation, Ancillary Services, and the handling of Load reductions as specified in the EAP. NCPA shall participate in all System Emergency operations-related communication between the ISO and other MSSs and UDCs within the ISO Control Area, which may include meetings, conference calls, hotlines, and/or e-mails.

NCPA shall provide all necessary Load and Generation data associated with the ISO’s System Emergency-related Operating Procedures, including Generation supplied, Load shed, and reserves made available during the time of an ISO declared System Emergency.

In the event a System Emergency occurs or the ISO determines that a System Emergency is threatened or imminent, NCPA shall, in accordance with Good Utility Practice and the NCPA EAP: (a) comply with all directions from the ISO concerning the management and alleviation of a threatened or actual System Emergency, which may include shutting down or starting a Generating Unit, altering the scheduled delivery of Energy or Ancillary Services to or from, as well as within, the ISO Control Area, and/or disconnecting NCPA Members’ Load and (b) comply with all other procedures concerning System Emergencies set out in the NCPA EAP, ISO Protocols, and ISO Operating Procedures, in accordance with the applicable provisions of this Agreement. Without limiting the generality of the foregoing:

- 7.1.1** When requested by the ISO during a System Emergency, NCPA shall operate all of the Generating Units listed in Schedule 14 to supply the ISO with generating capacity and/or Energy that can be made available by those Generating Units in order to make available as much generating capacity and/or Energy as possible to the ISO during the term of any System Emergency, consistent with: (a) maintaining the adequate supply of Energy to NCPA MSS Member Loads, other than in accordance with Section 7.4 of this Agreement; and (b) due consideration for the provisions of Section 3.1 and particular obligations of NCPA identified in the EAP attached to Schedule 11 or in the limitations specified in Schedule 14, provided that NCPA shall provide the ISO with advance notice of any changes to the NCPA EAP or limitations in Schedule 14 that NCPA’s obligations impose on the operation of the Generating Units of NCPA’s System, and any changes agreed to by the ISO shall be amendments to this Agreement. For that purpose, NCPA shall provide the ISO any update to the NCPA EAP and any change in Schedule 14 with regard to any limitations on the operation of the Generating

Units of NCPA's System. NCPA shall provide the ISO updates regarding the status of the limitations in Schedule 14 promptly whenever it becomes aware of factors that affect such limitations, provided that updates shall be provided at least quarterly and no updates may be provided later than the deadline for the submission by other Generators of changes in limitations on the operation of Generating Units, which is currently the deadline for the submission of final Hour-Ahead Schedules, except when a change is due to a Forced Outage. In making as much generating capacity and/or Energy available that can be made available by its Generating Units to the ISO as possible for use in System Emergency conditions, subject to the foregoing, NCPA shall:

- 7.1.1.1** Schedule, reschedule and operate to the maximum extent possible, the Generating Units and other sources of power of NCPA's System within and without the ISO's Control Area to maximize the amount of generating capacity and/or Energy available that can be made available by those Generating Units and other resources to the ISO; and
- 7.1.1.2** Reschedule outages of equipment and facilities, including Generating Units and any facilities which may impact the operation of Generating Units, to maximize the amount of generating capacity and/or Energy available that can be made available by those Generating Units to the ISO.
- 7.1.2** In the event that the ISO issues a Dispatch instruction that contravenes the NCPA EAP attached to Schedule 11 or any limitation set forth in Schedule 14 duly communicated in accordance with Section 7.1.1, NCPA or its Scheduling Coordinator shall not be required to follow that instruction, although it may consent to do so in a particular case (without prejudice to NCPA's right to direct its Scheduling Coordinator to decline any such instructions thereafter). If NCPA or its Scheduling Coordinator chooses not to follow such an instruction, it shall notify the ISO as soon as possible that it will not follow the Dispatch instruction due to the previously communicated limitation.
- 7.1.3** NCPA's Scheduling Coordinator shall receive compensation for generating capacity and/or Energy supplied in response to System Emergency Dispatch instructions issued by the ISO in accordance with the ISO Tariff.
- 7.1.4** During a System Emergency, the ISO and NCPA shall communicate through their respective control centers and in accordance with procedures established in this Agreement and the ISO Tariff.
- 7.1.5** Notwithstanding anything to the contrary in Articles V, VII, VIII, IX, or X of this Agreement or any ISO Tariff provision, NCPA or NCPA Members shall not be expected or required to curtail their Loads or offer to the ISO generating capacity or Energy from their Generating Units in a System Emergency that is due to the failure of other Load serving entities to provide resources adequate to serve Load



and maintain Operating Reserves or maintain an Approved Credit Rating in accordance with the ISO Tariff.

- 7.1.5.1** Nothing in this Section 7.1.5 or this Agreement is intended to affect NCPA or NCPA Members obligation to comply with any market mitigation requirement, including any must-offer requirement, that the FERC may impose.
- 7.2 Notice.** When a System Emergency occurs, the ISO shall notify NCPA's control center as part of the process by which it notifies all Utility Distribution Companies and MSS Operators of System Emergency conditions. Details of the notification process are set forth in Schedule 7.
- 7.3 Records.** NCPA and the ISO shall maintain all appropriate records with respect to operations during a System Emergency in accordance with the ISO Tariff.
- 7.4 Load Shedding**
- 7.4.1 Disconnection of Load.** NCPA, on behalf of the NCPA MSS Members, shall implement and have at all times operational an automatic Under Frequency Load Shedding (UFLS) program described in Schedule 8 and any under-voltage relay protection program that may be described in Schedule 9. When called upon to do so by the ISO in accordance with Section 7.4.2 to avert, manage, or alleviate a System Emergency, NCPA, on behalf of the NCPA MSS Members, shall implement the manual Load Shedding program described in Schedule 10. The ISO shall notify NCPA when conditions exist that would require NCPA to implement the Load curtailment and Interruptible Load programs described in Schedules 10, 10A, and 10B. Subject to the provisions of Sections 7.1.2 and 7.4.2, if the ISO determines that Load curtailment is required to manage a System Emergency, the ISO shall determine the amount and location, if applicable, of Load to be reduced and, to the extent practicable, shall allocate a portion of the required Demand reduction to NCPA and each UDC and MSS Operator based on the ratio of its Demand at the time of the ISO Control Area annual peak Demand for the previous year to total ISO Control Area annual peak Demand for the previous year, taking into account system considerations and NCPA's curtailment rights. The ISO shall consult with NCPA, together with other Market Participants, in the ISO's annual development of a prioritization schedule for the Load Shedding program in accordance with Section 2.3.2.6 of the ISO Tariff.
- 7.4.2 Manual Load Shedding Priorities.** Section 4.5.3 of the ISO Tariff provides that the ISO will determine each UDC or MSS that has insufficient resources to meet its forecasted Demand in accordance with the ISO forecast. If Load Shedding is required solely due to insufficient resources to meet Load and/or inability to meet Operating Reserve obligations (as defined by WECC or its successor and implemented by the ISO), as determined in accordance with Section 4.5.3 of the



ISO Tariff, and only if NCPA, on behalf of the MSS Members, is short of resources to meet its forecasted Demand and exports, as determined in accordance with Section 4.5.3 of the ISO Tariff, will NCPA, on behalf of the MSS Members, be required to shed Load, as directed by the ISO. NCPA shall provide the ISO with detailed real time information, in graphical or tabular format for those contracts and resources that do not have direct telemetry, demonstrating its full resource sufficiency during any time that the ISO interrupted firm Load within the ISO Control Area or during which time an ISO direction to interrupt firm Load was in force, like other MSS Operators and UDCs seeking similar exclusion from firm Load Shedding obligations, and NCPA and its Scheduling Coordinator shall be subject to the provisions of Section 4.5.3 of the ISO Tariff for any failure to make such demonstration.

**7.4.3 Load Restoration.** Load shed in accordance with Section 7.4.1 and 7.4.2 of this Agreement shall be restored pursuant to Schedule 12.

**7.4.4** The ISO shall use reasonable efforts to coordinate NCPA's Under Frequency Load Shedding program with the Under Frequency Load Shedding programs of other MSS Operators and Utility Distribution Companies, and the implementation of all such other programs, so that no one entity bears a disproportionate share of Load Shedding in the ISO Control Area. NCPA warrants that its Under Frequency Load Shedding program does and will continue to fully adhere to the applicable WECC plans and requirements governing such programs, in accordance with Schedule 8.

**7.4.5** To the extent NCPA reduces NCPA's System Load in response to a System Emergency, it shall exercise its best efforts to maintain the same level of Generation and imports as was scheduled prior to the Load reduction in order to provide the ISO with Energy, subject to the provisions of Section 7.1.2. NCPA's Scheduling Coordinator shall receive compensation for any Energy or Ancillary Services made available to the ISO as a result of such Load Shedding in accordance with the ISO Tariff and ISO Operating Procedures.

## **7.5 Electrical Emergency Plan**

**7.5.1** NCPA shall cooperate with the ISO's implementation of the Electrical Emergency Plan ("EEP") developed by the ISO in accordance with Section 2.3.2.4 of the ISO Tariff. NCPA shall implement the NCPA EAP attached to Schedule 11 of this Agreement and filed with FERC for informational purposes, and the ISO shall cooperate with NCPA's implementation of the EAP.

**7.5.2** NCPA shall notify the NCPA MSS Members pursuant to NCPA's EAP of any voluntary Load curtailments of which the ISO notifies NCPA pursuant to the EEP.

**7.5.3** When the ISO allocates an amount of Load curtailment to NCPA pursuant to the EEP to manage a System Emergency, NCPA shall notify the NCPA MSS

Members, and the NCPA MSS Members shall effectuate the required Load reductions.

## **ARTICLE VIII LOCAL AND REGIONAL RELIABILITY**

### **8.1 Reliability Within NCPA's System**

**8.1.1** NCPA shall be solely responsible for maintaining the reliability of electric service to customers in NCPA's System in accordance with Applicable Reliability Criteria, WECC and NERC requirements, regulatory requirements, and Good Utility Practice, subject to the responsibilities of the ISO as the operator of the Control Area in which NCPA's System is located.

**8.1.2** NCPA shall be responsible for any reliability Generation, Voltage Support, and Black Start service requirements within NCPA's System. At the Points of Interconnection, Voltage Support shall be managed in accordance with the Replacement IA and the ISO Tariff.

**8.1.3** If and to the extent the WECC criteria change or NCPA does not maintain sufficient Generation to meet the reliability criteria in Schedule 16, as may be amended, as applied to NCPA's System and thus avoid adverse impacts on the ISO Controlled Grid, then NCPA's Scheduling Coordinator may be assessed costs incurred by the ISO to support the reliability of NCPA's System. The ISO will notify NCPA that the reliability criteria have not been met and the Parties shall negotiate in good faith over necessary modifications and, if they cannot reach agreement, submit the dispute to dispute resolution in accordance with Article XV of this Agreement.

**8.2 Control Area Reliability.** For the costs specified in this Article VIII, NCPA, through its Scheduling Coordinator, shall be responsible for supplying or bearing its proportionate share of the costs of generating resources required for the reliability of electric service to Loads in the ISO Control Area, except for Reliability Must-Run ("RMR") Generation costs on the ISO Controlled Grid, where such costs are the responsibility of the Participating TO where the RMR unit is interconnected, provided further that NCPA is not a Participating TO. NCPA, through its Scheduling Coordinator, may meet such obligation from resources it owns or with respect to which it has contractual entitlements to the Energy and Ancillary Services or it may purchase those products through the ISO's markets in accordance with the terms of the ISO Tariff.

**8.2.1** NCPA's reliability Generation is currently identified in Schedule 14. In addition, some of NCPA's Generation provides RMR Generation services to PG&E and is subject to the terms of the ISO Tariff applicable to Reliability Must-Run Generation.

- 8.2.2** Nothing in this Agreement shall obligate NCPA to make any Generating Units available as Reliability Must-Run Generation other than those identified in Schedule 14 as RMR Units, unless NCPA notifies the ISO that it desires to participate in the RMR Unit designation process. To the extent NCPA does not notify the ISO that it desires to participate in the RMR Unit designation process, the ISO agrees not to designate any other NCPA Generating Units as RMR Units provided NCPA agrees that, in circumstances affecting local reliability of the ISO Controlled Grid that would otherwise be mitigated by RMR Units, any Generation not being used to serve NCPA Members will be made available to the ISO, subject to Article VII of this Agreement.
- 8.3 Voltage Support.** Except as otherwise agreed by the Parties, NCPA shall maintain the voltage on NCPA's System so that reactive flows at the Points of Interconnection are within the power factor band of 0.97 lag to 0.99 lead. NCPA shall not be compensated for maintaining the power factor at the levels required by the ISO within this bandwidth. If NCPA fails to maintain the power factor at the levels specified by the ISO, NCPA's Scheduling Coordinator shall bear a portion of the ISO's Voltage Support costs in accordance with Section 13.6.
- 8.4 Black Start.** NCPA shall either provide its own share of ISO Control Area Black Start capability or, through its Scheduling Coordinator, bear a portion of the ISO's Black Start costs in accordance with Section 13.7.
- 8.5 Ancillary Services.** NCPA's responsibility for the ISO Control Area requirements of Ancillary Services shall be determined in accordance with the ISO Tariff. If NCPA's Scheduling Coordinator schedules sufficient self-provided capacity complying with the applicable requirements of the ISO Tariff, which capacity is committed to the various required Ancillary Services, and maintains the Ancillary Service capacity as available to the ISO for that purpose, NCPA's Scheduling Coordinator shall not be required to purchase capacity in the ISO's Ancillary Service markets. To the extent NCPA's Scheduling Coordinator does not schedule sufficient capacity for this purpose, NCPA may, through its Scheduling Coordinator, purchase the required capacity in the ISO's Ancillary Service markets. To the extent NCPA's Scheduling Coordinator does not maintain the availability of capacity committed to the ISO for Ancillary Services for that purpose, the Scheduling Coordinator shall be responsible for the applicable charges under the ISO Tariff.
- 8.6 Imbalance Energy.** To the extent that sufficient Energy for the purpose of serving Load in the Service Areas of NCPA Members for which NCPA serves as MSS Aggregator or Scheduling Coordinator and exports from the Service Areas of those NCPA Members, including losses, is not reflected in Schedules submitted by NCPA's Scheduling Coordinator and delivered in real time, NCPA shall be deemed (through its Scheduling Coordinator) to have purchased or sold Imbalance Energy in the ISO's Imbalance Energy market. The ISO will settle with NCPA's Scheduling Coordinator with regard to Imbalance Energy in



accordance with the ISO Tariff. However, when NCPA is following its MSS Load and exports from the MSS with NCPA's System resources and imports into the MSS, to the extent that the net Imbalance Energy for all of NCPA's MSS Loads and exports from the MSS, and resources and imports into the MSS, is within NCPA's portfolio deviation band, as specified in Section 13.12, NCPA's Scheduling Coordinator will not be subject to costs or penalties other than the cost of the Imbalance Energy itself. To the extent that NCPA's Scheduling Coordinator is operating outside of its portfolio deviation band, NCPA's Scheduling Coordinator shall be subject to penalties as specified in Section 13.12. In following Load, NCPA's Scheduling Coordinator may utilize any resource available to it regardless of whether, or at what level, that resource is reflected in Schedules submitted by NCPA's Scheduling Coordinator, except with respect to any portion of the capacity of a resource for which NCPA's Scheduling Coordinator has submitted an Ancillary Services capacity bid to the ISO for that resource or to the extent the ISO has issued a System Emergency operating order consistent with Section 7.1.1.

## **ARTICLE IX ACCESS**

### **9.1 Existing Contracts and Encumbrances and Access to the ISO Controlled Grid**

**9.1.1** This Agreement is intended to operate in conjunction with the Settlement Agreement. Nothing in this Agreement shall be construed or interpreted in any manner that would interfere with the terms and conditions of any Existing Contract or Encumbrance or relieve the ISO of its obligation to honor such Existing Contracts and Encumbrances, provided that NCPA or its Scheduling Coordinator shall schedule its use of Existing Contracts and Encumbrances as specified in Section 11.3 of this Agreement. The Existing Contracts and Encumbrances are listed on Schedule 13.

**9.1.2** NCPA shall have open and non-discriminatory access to the ISO Controlled Grid for the scheduling of transactions that do not utilize Existing Contracts and Encumbrances for it or the NCPA Members in accordance with the ISO Tariff and for other transmission services the ISO may provide in the future under the ISO Tariff.

**9.1.3** NCPA may use the ISO Controlled Grid in accordance with the ISO Tariff to buy and sell electric products in the ISO's markets and in bilateral transactions with other Market Participants.

**9.1.4** NCPA shall afford open and non-discriminatory access to the transmission facilities included in NCPA's System to any entity qualified to obtain an order under Section 211 of the Energy Policy Act of 1992 that affords such access to the transmission facilities that such entity owns or controls.





## **9.2 Access to ISO Markets**

**9.2.1 Sales of Energy and Ancillary Services.** Energy and Ancillary Services produced by Generating Units and Loads on NCPA's System may be sold in the ISO's markets on the terms applicable under the ISO Tariff to Participating Generators and Participating Loads, respectively, as modified by this Agreement. If NCPA's Scheduling Coordinator submits a bid for Energy or Ancillary Services from a Generating Unit or Load of NCPA's System, NCPA warrants to the ISO that it has the capability to provide that service in accordance with the ISO Tariff and that it shall comply with ISO Dispatch instructions for the provision of the service in accordance with this Agreement. If NCPA's Scheduling Coordinator submits a bid for Energy or Ancillary Services from a Generating Unit or Load within a Service Area of NCPA's System, any Energy delivered from that Generating Unit or Load shall be added to the calculation of NCPA's net metered Demand and exports from NCPA's System for purposes of determining deliveries to NCPA's System in assessing charges pursuant to Article XIII.

**9.2.2 Certification.** NCPA shall not use a Scheduling Coordinator to submit a bid for the provision of an Ancillary Service or submit a Schedule for the self provision of an Ancillary Service unless the Scheduling Coordinator serving NCPA is in possession of a current certificate pursuant to Sections 2.5.6 and 2.5.24 of the ISO Tariff.

**9.2.3 Supplemental Energy and Ancillary Service Bids.** Bids in the ISO's Supplemental Energy and Ancillary Service markets may only be submitted by NCPA's Scheduling Coordinator.

**9.2.4 Black Start and Voltage Support.** NCPA or its Scheduling Coordinator shall be entitled to bid the resources on NCPA's System in any open solicitation held by the ISO for Black Start or Voltage Support services, provided that the supply of any service by NCPA shall not impair its ability to provide the service it is required by Article VIII of this Agreement to provide for NCPA's System, and, if the services are sold to the ISO, NCPA or its Scheduling Coordinator shall provide such services in accordance with the ISO Tariff.

## **ARTICLE X GENERATING UNITS AND PARTICIPATING LOADS**

**10.1 Identification of Resources.** NCPA has identified in Schedule 14 the individual Generating Units and Participating Loads that it owns, operates or to which it has a contractual entitlement.

**10.1.1 Technical Characteristics.** NCPA has provided to the ISO in Schedule 14 the required information regarding the capacity and operating characteristics of each of the Generating Units and Participating Loads listed in that schedule. The ISO

may verify, inspect, and test the capacity and operating characteristics provided in Schedule 14, and any changes thereto made pursuant to Section 10.1.2 of this Agreement, in accordance with Section 2.5.25 of the ISO Tariff.

**10.1.2 Notification of Changes.** NCPA shall notify the ISO sixty (60) days prior to any change to the information provided in Schedule 14, provided that such notice shall not be required for changes to parameters of operating limitations set forth in Schedule 14, which shall be made in accordance with the ISO's Operating Procedures. The Parties shall amend Schedule 14, as applicable, to reflect that change. Subject to such notification, and verification, inspection, and testing in accordance with Section 10.1.1, but without waiting for the execution and effectiveness of an amended Schedule 14, the Parties shall implement any new information for a Generating Unit or Participating Load identified in Schedule 14 upon the effective date for the next scheduled update to the ISO's Master File.

**10.1.3** Nothing in this section shall preclude NCPA from informing the ISO of changes in limitations on the operation of a Generating Unit, as provided in Section 7.1 of this Agreement, or to comply with environmental laws and regulations, provided that NCPA provides the ISO with advance notice of any changes in such limitations.

## **10.2 Generating Unit Operation**

**10.2.1** NCPA shall install and maintain direct telemetry links to the ISO's EMS system for each NCPA Generating Unit that enable the ISO to view the status, voltage, and output of the Generating Unit and ISO certified meters that transmit data automatically to the ISO's meter data acquisition system. NCPA shall calculate and specify to the ISO any distribution loss factor applicable to the Generating Units of NCPA's System.

**10.2.2** If NCPA, through its Scheduling Coordinator, chooses to supply Regulation or self-provide Regulation from a Generating Unit, it must provide the ISO with control over the Generating Unit providing Regulation and place the Generating Unit on Automatic Generation Control ("AGC") responsive to the ISO's Regulation signal. Regulation service shall be provided in accordance with the ISO Tariff. NCPA or its Scheduling Coordinator may adjust output of the Generating Units of NCPA's System, in response to NCPA's Load following needs, provided that, if NCPA is providing Regulation to the ISO from any Generating Unit, it may not adjust the output of that Generating Unit unless the integrity of the ISO's Regulation signal, and the continuous responsiveness of such Generating Unit, via AGC, to the ISO's Regulation signal, is not compromised. If the ISO determines that the integrity of the ISO's Regulation signal or the continuous responsiveness to the ISO's Regulation signal is compromised, NCPA's Generating Unit shall be deemed not to have provided the Regulation, and NCPA shall be subject to the provisions of the ISO Tariff applicable to failure to provide Regulation. To the extent that NCPA chooses not to provide Regulation from an NCPA Generating Unit, the ISO shall not control

the Generating Unit via a direct link between the ISO and the Generating Unit without NCPA's consent.

**10.3 ISO Authority to Dispatch NCPA Resources.** The ISO's authority to Dispatch any portion of the capacity of any Generating Unit of NCPA, other than in accordance with a bid submitted to the ISO by NCPA's Scheduling Coordinator, is set forth in and subject to Section 7.1 of this Agreement.

#### **10.4 WECC Requirements Applicable to Participating Generators**

**10.4.1 Reliability Criteria.** NCPA shall comply with the requirements of Section 5.4 of the ISO Tariff applicable to Participating Generators.

**10.4.2 Payment of WECC Sanctions.** NCPA shall be responsible for payment directly to the WECC of any monetary sanction assessed against NCPA by the WECC, as provided in Section 5.4.3 of the ISO Tariff.

### **ARTICLE XI SCHEDULING**

**11.1 Scheduling Coordinator.** All Schedules submitted on behalf of NCPA for the delivery of Energy and Ancillary Services to Loads in NCPA's System and for exports from NCPA's System shall be submitted by a Scheduling Coordinator certified in accordance with the applicable provisions of the ISO Tariff that has entered into a Scheduling Coordinator Agreement with the ISO that is currently in effect. The Scheduling Coordinator may be NCPA itself or a Scheduling Coordinator designated by NCPA.

**11.2 Self-Provided Energy and Ancillary Services.** NCPA may self-provide all or any portion of its obligation for Energy and Ancillary Services. Whether or not NCPA engages in such self-provision, NCPA's Scheduling Coordinator shall include the gross output, less auxiliary load, of each Generating Unit and import from which NCPA meets that obligation and the gross Load served on NCPA's System and gross exports from NCPA's System in Schedules submitted to the ISO. If the ISO amends the ISO Tariff to relieve Scheduling Coordinators of the obligation to schedule gross Generation, imports, Loads, and exports, and the amendment would have applied to NCPA in the absence of this Agreement, the Parties shall negotiate an amendment to this Agreement to conform the obligations of this section to the modified procedures.

**11.3 Scheduling Timelines.** Except as otherwise specified in this Section 11.3, NCPA's Scheduling Coordinator shall submit all Schedules, including (i) Schedules for the use of its Existing Contracts and Encumbrances, and transmission ownership rights comprising NCPA's System, (ii) Schedules for the use of the ISO Controlled Grid as a new firm use, and (iii) Schedules for the self-



provision of Energy and Ancillary Services, within the timelines established by the ISO Tariff. NCPA's Scheduling Coordinator shall not be precluded from making real-time changes if such scheduling capability is afforded NCPA or NCPA Members under Existing Contracts, Encumbrances, or the Settlement Agreement. If NCPA elects to follow its Load as an MSS Aggregator in accordance with Section 8.6, NCPA's Scheduling Coordinator shall have the ability to make changes in its Schedules in accordance with the timelines set forth in Schedule 13 if such scheduling capability is for use of transmission ownership rights in non-ISO Controlled Grid facilities located in the ISO Control Area at a Control Area intertie, provided that this scheduling capability shall be subject to reconsideration in conjunction with the implementation of MRTU in accordance with Section 3.6. Schedule 13 includes any Scheduling timelines required for Existing Contracts and Encumbrances, and transmission ownership rights comprising NCPA's System.

## **ARTICLE XII METERING**

- 12.1** NCPA shall ensure installation of ISO-certified revenue quality meters and associated equipment at (a) the Points of Interconnection and, (b) for each Generating Unit listed in Schedule 14, at each bus to which one or more Generating Units is connected, provided that the Demand of any Load at that bus, other than a Generating Unit auxiliary load, is separately metered.
- 12.2** The provisions of the ISO Tariff applicable to ISO Metered Entities shall apply to NCPA, subject to the particular rights and obligations of the Parties with respect to metering set forth in Schedule 15, including access to and testing of NCPA's meters.
- 12.3** The calculation of NCPA's Settlement Quality Meter Data shall be in accordance with Schedule 15.

## **ARTICLE XIII CHARGES**

- 13.1 Charges Generally.** Except as may be provided otherwise in the provisions of this Article XIII, NCPA's Scheduling Coordinator shall be responsible for charges incurred in accordance with the ISO Tariff, provided that nothing in this Agreement shall prohibit NCPA from challenging the allocation of any new charge under the ISO Tariff to NCPA on the ground that the proposed charge is not appropriately assessed against a MSS Operator, or on any other ground. Further, except as specifically provided in this Agreement, NCPA shall only be responsible for charges allocated by the ISO Tariff to Participating TOs if it becomes a Participating TO, as permitted by Section 3.3.7.

- 13.2 Transmission Losses.** NCPA's Scheduling Coordinator shall be responsible for transmission losses, in accordance with the ISO Tariff, only for the delivery of Energy to NCPA's System or from NCPA's System, provided NCPA fulfills its obligation to provide for transmission losses on the transmission facilities forming part of NCPA's System in accordance with Section 5.5 of this Agreement. A Generation Meter Multiplier ("GMM") shall be assigned to the Generating Units and a Transmission Meter Multiplier ("TMM") shall be assigned to Control Area intertie points that are part of NCPA's System at the Points of Interconnection for use of the ISO Controlled Grid. That GMM and TMM shall be 1.0 for all Generating Units and Control Area intertie points that are part of NCPA's System that are located at or behind a Point of Interconnection, to the extent that the Load at the Point of Interconnection for that portion of NCPA's System exceeds the amount of Generation produced by the Generating Units, plus the amount of any imports from any Control Area intertie, connected to that portion of NCPA's System.
- 13.3 Congestion Costs.** NCPA's Scheduling Coordinator shall be responsible for Usage Charges and Grid Operations Charges, and any successor charges through which the ISO collects Congestion costs from Scheduling Coordinators, in accordance with the ISO Tariff only with respect to NCPA's Scheduling Coordinator's delivery of Energy and Ancillary Services, utilizing the ISO Controlled Grid, to NCPA's System or from NCPA's System, including NCPA's Scheduling Coordinator's delivery of Energy and Ancillary Services from Generating Units on NCPA's System to NCPA's System Loads other than Loads within the same Service Area to which the Generating Units are connected, provided that NCPA fulfills its obligation to manage Congestion on NCPA's System and at the Points of Interconnection at its own cost in accordance with Section 5.5 of this Agreement.
- 13.4 Unaccounted-For Energy Costs.** NCPA's System shall be treated as a Utility Distribution Company Service Area for purposes of allocating responsibility for Unaccounted-for Energy costs in accordance with the ISO Tariff.
- 13.5 Reliability Generation.** NCPA shall be responsible for the costs of maintaining the reliability of transmission facilities in NCPA's System, including costs of Generating Units operated by or on behalf of NCPA for that purpose. If and to the extent NCPA does not maintain sufficient Generation to meet the reliability criteria in Schedule 16 as applied to NCPA's System and thus avoid material adverse impacts on the ISO Controlled Grid, then NCPA may be assessed costs incurred by the ISO to support the reliability of NCPA's System.
- 13.6 Voltage Support Costs.** If and to the extent NCPA does not satisfy the Voltage Support obligations set forth in accordance with Section 8.3 of this Agreement, NCPA's Scheduling Coordinator shall bear a proportionate share of the ISO's Voltage Support cost in accordance with the ISO Tariff.



- 13.7 Black Start Costs.** If and to the extent NCPA does not provide its own Black Start capability in accordance with Section 8.4 of this Agreement, NCPA's Scheduling Coordinator shall bear a proportionate share of the ISO's Black Start cost in accordance with the ISO Tariff.
- 13.8 Neutrality Costs.** NCPA's Scheduling Coordinator's obligation to pay neutrality adjustments and Existing Contracts cash neutrality charges (or collect refunds) shall be based on NCPA's net metered Demand and exports from the ISO Control Area.
- 13.9 Summer Reliability Costs.** NCPA, through its Scheduling Coordinator, shall have the option to avoid any share of the ISO's costs for any summer Demand reduction program or for any summer reliability Generation procurement program pursuant to ISO Tariff Section 2.3.5.1.8. In order to avoid such costs, NCPA shall secure capacity reserves on an annual basis at least equal to fifteen percent (15%) of the peak Demand responsibility of NCPAB members, and provide documentation to the ISO of the resources proposed to meet that peak Demand responsibility plus such capacity reserves. Such capacity reserves may include on-demand rights to Energy, peaking resources, and NCPAB members' Demand reduction programs. For the purposes of this Section 13.9, the peak Demand responsibility shall be equal to the forecasted annual coincident peak Demand Forecast of NCPAB plus any firm power sales by NCPAB plus any NCPAB on-demand obligations to third parties, less interruptible Loads, and less any firm power purchases. Firm power for the purposes of this Section 13.9 shall be Energy that is intended to be available to the purchaser without being subject to interruption or curtailment by the supplier except for Uncontrollable Forces or emergency, and for which the supplier carries WECC-required operating reserves. To the extent that NCPA demonstrates its provision of capacity reserves in accordance with this Section 13.9, NCPAB members' Scheduling Coordinator shall not be obligated to bear any share of the ISO's costs for any summer Demand reduction program or for any summer reliability Generation procurement program pursuant to ISO Tariff Section 2.3.5.1.8. SVP must demonstrate its provision of the resources proposed to meet that peak Demand responsibility plus capacity reserves separately.
- 13.10 Generating Unit Minimum Load, Emissions and Start-Up Costs.** If the ISO is compensating Generating Units for Minimum Load Costs, Emissions Costs, and Start-Up Costs, and NCPA has elected to follow its Load in accordance with Section 8.6, then NCPA, which is performing as MSS Aggregator, shall elect either the option set forth in Section 13.10.1 or the option set forth in Section 13.10.2. If NCPA has not elected to follow its Load in accordance with Section 8.6, then NCPA may not elect the option set forth in Section 13.10.2.
- 13.10.1** NCPA may elect to be eligible for recovery of Minimum Load Costs and charge the ISO for the Emissions Costs and Start-Up Costs of the Generating Units serving the Load of NCPA's System. If NCPA makes such election, then the Scheduling Coordinator for NCPA as MSS Aggregator shall bear its



proportionate share of the total amount of those costs incurred by the ISO in accordance with the ISO Tariff.

**13.10.2** NCPA may elect not to be eligible for recovery of Minimum Load Costs and not to charge the ISO for the Emissions Costs and Start-Up Costs of the Generating Units serving the Load of NCPA's System. If NCPA makes such election, then the Scheduling Coordinator for NCPA as MSS Aggregator shall bear its proportionate share of the total amount of those costs incurred by the ISO based on NCPA as MSS Aggregator's Net Negative Uninstructed Deviations.

**13.10.3** NCPA shall make the election whether to be eligible for Minimum Load Cost recovery and charge the ISO for the subject Generating Unit Emission Costs and Start-Up Costs annually by November 1 for the following calendar year.

**13.11 Grid Management Charge Adjustment for MSS Load Following.** If the ISO is charging Grid Management Charges for uninstructed deviations (currently the Energy Transmission Services Uninstructed Deviations Charge and a portion of the Market Usage Charge), and if NCPA's Scheduling Coordinator has uninstructed deviations associated with Load following from resources listed in Schedule 14, then the ISO will net the Generation and imports into the MSS to match the Load and exports out of the MSS, and will not assess Grid Management Charges associated with uninstructed deviations for such portion of Energy that is used to match MSS Load and net exports out of the MSS. If Generation and imports into the MSS are above the amount to cover Load and exports out of the MSS, and were sold into the ISO's Imbalance Energy market, then NCPA's Scheduling Coordinator will only be charged Grid Management Charges associated with uninstructed deviations for this quantity. If Generation and imports into the MSS are below the amount to cover Load and exports out of the MSS and Imbalance Energy is purchased from the ISO, then NCPA's Scheduling Coordinator will only be charged Grid Management Charges associated with uninstructed deviations for this quantity. NCPA's Scheduling Coordinator will otherwise be assessed all components of the Grid Management Charge in accordance with the ISO Tariff.

**13.12 Deviation Band and Penalties Calculation.** The ISO will settle with NCPA's Scheduling Coordinator with regard to Imbalance Energy, based on the applicable zonal or locational ex post prices, in accordance with the ISO Tariff. For purposes of assessing penalties to NCPA's Scheduling Coordinator associated with operating outside the portfolio deviation band described in Section 8.6, the portfolio deviation band shall be three percent (3%) of the lesser of NCPA's metered or Hour-Ahead scheduled Demand and exports from the MSS, adjusted for Forced Outages and any ISO directed firm Load Shedding, for NCPA's portfolio as a whole. Penalties for operating outside of the deviation band will be based on a price that is the effective weighted average ex post price applicable to NCPA for the billing interval. If the metered Generation resources and imports into the MSS exceed the Demand, exports from the MSS, and Energy expected to be delivered by NCPA in response to the ISO's Dispatch

instructions and/or Regulation set-point signals issued by the ISO's AGC by more than the deviation band, then the ISO will take back its payment for Imbalance Energy by assessing NCPA's Scheduling Coordinator a penalty of one hundred percent (100%) of the amount of Imbalance Energy that is outside the deviation band. If metered Generation resources and imports into the MSS are deficient in meeting Demand, exports from the MSS, and Energy expected to be delivered by NCPA in response to the ISO's Dispatch instructions and/or Regulation set-point signals issued by the ISO's AGC by more than the deviation band, then NCPA's Scheduling Coordinator shall be assessed a two hundred percent (200%) penalty for the amount of Imbalance Energy that is outside of the deviation band, in addition to the Imbalance Energy charges that may be applicable. NCPA shall not oppose the ISO's allocation of the proceeds of any deviation band penalties as an offset to the ISO's Grid Management Charge.

**13.13 Replacement Reserve Allocation.** MD02 included the elimination of Replacement Reserve by October 1, 2002. Because Replacement Reserve was not eliminated by October 1, 2002, the Parties agree to negotiate a change to the ISO's allocation of Replacement Reserve costs to NCPA, upon notice from one Party to the other, to bring that allocation into conformance with the settlement principles of Section 8.6.

**13.14 Penalties for Failure to Provide Ancillary Services Capacity.** The Parties agree that Ancillary Services should be provided from the resources that the ISO actually instructs to respond and that the resources instructed to deliver Ancillary Services are expected to provide an incremental response consistent with the standards for the Ancillary Service. However, since NCPA's Scheduling Coordinator may simultaneously be undertaking economic trades or following Loads using the same resource that the ISO has instructed to deliver Ancillary Services, the ISO will incorporate NCPA's documented Load following instructions into its evaluation of Ancillary Services compliance. Penalties for failure to provide committed Ancillary Services capacity will be assessed by the ISO in accordance with the ISO Tariff, on an individual Generating Unit basis, whenever that capacity is considered to have not been made available to the ISO. If the ISO believes that an NCPA Generating Unit did not supply the committed amount of Ancillary Services capacity or associated Energy, based on the Ancillary Services capacity reservation, any instructions issued by the ISO to NCPA or its Scheduling Coordinator to provide associated Energy, and the supporting meter data, when assessing penalties the ISO will give due consideration to operational data that NCPA or its Scheduling Coordinator may provide to demonstrate that the Generating Unit's output was being adjusted for Load-following purposes as allowed by the terms of this Agreement and within the Ancillary Services capacity not provided to the ISO. Additionally, the Parties agree that the current equations for the settlement of real time Energy may under some circumstances result in Ancillary Services capacity penalties that are inappropriate when the Generating Unit is being used simultaneously to follow Load and provide Ancillary Services Energy.



**13.15 Operating and Maintenance Costs.** NCPA shall be responsible for all its costs incurred in connection with procuring, installing, operating, and maintaining the facilities, Generating Units, and Participating Loads of NCPA's System for the purpose of meeting its obligations under this Agreement.

**13.16 Billing and Payment.** Billing and payment will be in accordance with the ISO Tariff.

#### **ARTICLE XIV PENALTIES AND SANCTIONS**

**14.1 Penalties.** NCPA or its Scheduling Coordinator shall be subject to penalties and/or sanctions for failure to comply with any provisions of this Agreement only to the extent that (a) the penalty or sanction is set forth in the ISO Tariff and has been approved by FERC; and (b) the ISO Tariff provides for the imposition of the same penalty or sanction on a UDC, MSS Operator, Participating Generator, or Participating Load in the same circumstances. Nothing in this Agreement, with the exception of the provisions of Article XV, shall be construed as waiving the rights of NCPA to oppose or protest any penalty or sanction proposed by the ISO to the FERC or the specific imposition by the ISO of any FERC-approved penalty or sanction on NCPA.

**14.2 Corrective Measures.** If NCPA fails to meet or maintain the requirements set forth in this Agreement or in the applicable provisions of the ISO Tariff, the ISO shall be permitted to take any of the measures, contained or referenced herein or in the applicable provisions of the ISO Tariff that the ISO deems to be necessary to correct the situation.

#### **ARTICLE XV DISPUTE RESOLUTION**

**15.1 Dispute Resolution.** The Parties shall make reasonable efforts to settle all disputes arising out of or in connection with this Agreement. In the event any dispute is not settled, the Parties shall adhere to the ISO ADR Procedures set forth in Section 13 of the ISO Tariff, which is incorporated by reference, except that any reference in Section 13 of the ISO Tariff to Market Participants shall be read as a reference to NCPA and references to the ISO Tariff shall be read as references to this Agreement.

## ARTICLE XVI REPRESENTATIONS AND WARRANTIES

- 16.1 Representations and Warranties.** Each Party represents and warrants that the execution, delivery and performance of this Agreement by it has been duly authorized by all necessary corporate and/or governmental actions, to the extent authorized by law.
- 16.2 Necessary Approvals.** Each Party represents that all necessary leases, approvals, licenses, permits, easements, rights of way or access to install, own and/or operate its facilities subject to this Agreement have been or will be obtained prior to the effective date of this Agreement.
- 16.3 NCPA Representation of NCPA Members.** NCPA represents and warrants that, as of the effective date of this Agreement as set forth in Section 2.1, it is authorized by all applicable NCPA Members to perform the duties and obligations set forth in this Agreement.

## ARTICLE XVII LIABILITY AND INDEMNIFICATION

- 17.1 Liability and Indemnification.** The provisions of Section 14 of the ISO Tariff will apply to liability and indemnification arising under this Agreement, except that all references in Section 14 of the ISO Tariff to Market Participants shall be read as references to NCPA and references to the ISO Tariff shall be read as references to this Agreement.

## ARTICLE XVIII UNCONTROLLABLE FORCES

- 18.1** Section 15 of the ISO Tariff shall be incorporated by reference into this Agreement, except that all references in Section 15 of the ISO Tariff to Market Participants shall be read as a reference to NCPA and references to the ISO Tariff shall be read as references to this Agreement.

## ARTICLE XIX MISCELLANEOUS

- 19.1 Notices.** Any notice, demand or request which may be given to or made upon either Party regarding this Agreement shall be made in writing to the employee or official identified in Schedule 17 of this Agreement, and shall be deemed properly given: (a) upon delivery, if delivered in person, (b) five (5) days after deposit in the mail if sent by first class United States mail, postage prepaid, (c) upon receipt of confirmation by return facsimile if sent by facsimile, or (d) upon delivery if

delivered by prepaid commercial courier service. A Party must update the information in Schedule 17 as the information changes. Such changes shall not constitute an amendment to this Agreement.

- 19.2 Waivers.** Any waiver at any time by either Party of its rights with respect to any default under this Agreement, or with respect to any other matter arising in connection with this Agreement, shall not constitute or be deemed a waiver with respect to any subsequent default or other matter arising in connection with this Agreement. Any delay, short of the statutory period of limitations, in asserting or enforcing any right under this Agreement shall not constitute or be deemed a waiver of such right.
- 19.3 Governing Law and Forum.** This Agreement shall be deemed to be a contract made under, and for all purposes shall be governed by and construed in accordance with, the laws of the State of California, except its conflict of laws provisions. The Parties agree that any legal action or proceeding arising under or relating to this Agreement to which the ISO ADR Procedures do not apply shall be brought in one of the following forums as appropriate: any court of the State of California, any federal court of the United States of America located in the State of California, or, where subject to its jurisdiction, before the Federal Energy Regulatory Commission.
- 19.4 Merger.** This Agreement constitutes the complete and final agreement of the Parties with respect to the subject matter hereof and supersedes all prior agreements, whether written or oral, with respect to the provisions of this Agreement.
- 19.5 Counterparts.** This Agreement may be executed in one or more counterparts at different times, each of which shall be regarded as an original and all of which, taken together, shall constitute one and the same Agreement.
- 19.6 Consistency with Federal Laws and Regulations.** Nothing in this Agreement shall compel either Party to violate federal statutes or regulations, or orders lawfully promulgated thereunder. If any provision of this Agreement is inconsistent with any obligation imposed on a Party by such federal statute, regulation or order, to that extent, it shall be inapplicable to that Party. No Party shall incur any liability by failing to comply with a provision of this Agreement that is inapplicable to it by reason of being inconsistent with any such federal statutes, regulations, or orders lawfully promulgated thereunder; provided, however, that such Party shall use its best efforts to comply with this Agreement, to the extent that applicable federal laws, regulations, and orders lawfully promulgated thereunder permit it to do so.
- 19.7 Severability.** If any term, covenant, or condition of this Agreement or the application or effect of any such term, covenant, or condition is held invalid as to any person, entity, or circumstance, or is determined to be unjust, unreasonable, unlawful, imprudent, or otherwise not in the public interest by any court or



government agency of competent jurisdiction, then such term, covenant, or condition shall remain in force and effect to the maximum extent permitted by law, and all other terms, covenants, and conditions of this Agreement and their application shall not be affected thereby, but shall remain in force and effect and the Parties shall be relieved of their obligations only to the extent necessary to eliminate such regulatory or other determination unless a court or governmental agency of competent jurisdiction holds that such provisions are not separable from all other provisions of this Agreement.

**19.8 Assignments.** Either Party may assign its rights and obligations under this Agreement, with the other Party's prior written consent, in accordance with Section 17 of the ISO Tariff, which is incorporated by reference into this Agreement. Such consent shall not be unreasonably withheld.

**IN WITNESS WHEREOF**, the Parties hereto have caused this Agreement to be duly executed on behalf of each by and through their authorized representatives as of the date hereinabove written.

**CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION**

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

**NORTHERN CALIFORNIA POWER AGENCY**

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_



**SCHEDULE 1**  
**NCPA'S SYSTEM FACILITIES**  
**[Section 1.2]**

The following facilities form NCPA's System, including the Points of Interconnection.



## Points of Interconnection

Member Customer	Point of Interconnection	Voltage (kV)	2002 Normal Delivery Capability (MW)	2002 Coincident Peak Load (MW)	2002 Non – Coincident Peak Load (MW)
Alameda	Oakland Substation C and Oakland Substation J	115 (Both Points)	229	55.2	69.7
Biggs	Biggs Sub (60 kV and 12 kV)	60 and 12	29.2	3.6	3.7
Gridley	Gridley Sub	60	62	8.9	8.9
Healdsburg	Healdsburg Sub	60	30	18.0	18.0
Lodi	Industrial Sub (Lodi Line 1 and Lodi Line 2); White Slough Sub (Lodi White Slough North and Lodi White Slough South); and White Slough Stig <sup>1</sup>	60 (Both Industrial Points)  12 (Both White Slough Sub Points)  230 (White Slough Stig)	124.5	123.9	123.9
Lompoc	Lompoc Sub (Lompoc Line 1 and Lompoc Line 2)	115 (Both Points)	72.5	18.9	24.9
Palo Alto	Colorado Sub (Palo Alto Line 1, Palo Alto Line 2, and Palo Alto Line 3)	115 (All 3 Points)	379	178.9	183.5
Plumas Sierra	Quincy Sub Marble Sub	60 60	28.3	23.2	28.1
Ukiah	Babcock Sub	115	31.4	30.4	30.9
Silicon Valley Power*	Northern Receiving Station (NRS) (Newark-NRS No. 1, Newark-NRS No. 2, and Nortech-NRS); Kifer Receiving Station (Newark-Kifer and FMC-Kifer); and SVP Switching Station (SSS)	115 (All 5 NRS and Kifer Points)       230 (SSS)			
Port of Oakland	San Leandro – Oakland “J”, 10286 115-kV for Edes #1 Tap; Oakland “J” – Grant, 10244 115-kV for Edes #2 Tap; Oakland “C”	115	16.7	7.3	8.0

<sup>1</sup> Lodi Wastewater treatment plant load will be served via the Lodi White Slough Stig Interconnection with PG&E, be separately metered, and be included in the normal, coincident and non-coincident load information for Lodi.



	Maritime Tap; and Oakland Army Base Tap	115	40	6.4	6.4
		115	40	1.2	1.2



\*The Points of Interconnection listed herein for Silicon Valley Power are governed by the terms of the Silicon Valley Power MSS Agreement with the ISO with respect to the operational and other matters addressed in that agreement.

The interconnection points for all Generating Units listed on Schedule 14 also are Points of Interconnection.

#### Other System Facilities

1. Double Circuit 230 kV line from Collierville to Bellota.
2. NCPA MSS Members' rights in Transmission Agency of Northern California's (TANC) ownership of the California-Oregon Transmission Project (COTP), to the extent that a portion of the COTP remains in the ISO Control Area.
3. Two 230 kV lines from Geysers to Castle Rock Junction. NCPA 230 kV No. 1 goes from Plant No. 1 to Lakeville. NCPA 230 kV No.2 goes from Plant No. 2 to Fulton.
4. All facilities listed on Schedule 14 of this Agreement.



**SCHEDULE 2**  
**INTERCONNECTED OPERATION STANDARDS**  
**[Section 4.2]**

The ISO and NCPA shall jointly maintain stable operating parameters and control real and reactive power flows in accordance with the following Interconnected Operation Standards.

**NCPA Responsibilities**

- 1.0 NCPA shall operate the facilities of NCPA's System at each Point of Interconnection in such manner as to avoid any material or adverse impact on the ISO Control Area. In accordance with this performance goal, NCPA shall:
  - 1.1 Operate the facilities of NCPA's System at each Point of Interconnection within established operating parameters including normal ratings, emergency ratings, voltage limits, and balance of load between electrical phases.
  - 1.2 Maintain primary and backup protective systems such that faults on NCPA's System facilities will be cleared within the timeframe specified by the Participating TO and NCPA with minimal impact on the ISO Controlled Grid.
  - 1.3 Maintain load power factor at each Point of Interconnection with the ISO Controlled Grid in accordance with Section 8.3 of this Agreement.
  - 1.4 In addition, NCPA shall operate the facilities of NCPA's System at each Point of Interconnection in accordance with the requirements applicable to Utility Distribution Companies in the ISO Operating Procedures and standards, and such that at the Points of Interconnection between the ISO Controlled Grid and NCPA's System no circuits or equipment shall exceed the allowable ampacity rating or simultaneous transfer limit between the ISO Controlled Grid and NCPA's System (such simultaneous transfer limit shall be studied and established by the Parties). If the actual or anticipated power flow between the ISO Controlled Grid and NCPA's System causes a circuit at a Point of Interconnection to exceed its applicable ampacity rating or such flow exceeds or is anticipated to exceed the agreed to allowable simultaneous transfer limit between the ISO Controlled Grid and NCPA's System, and further if the ISO determines and NCPA concurs with the ISO's determination, in accordance with Good Utility Practice, that NCPA's System is the cause of such exceedance or anticipated exceedance, NCPA retains the right, and the ISO shall have the right to require NCPA, to take immediate action to reduce such flow on the overloaded circuit or reduce such simultaneous power flow between the ISO Controlled Grid and NCPA's System by one or more actions (as determined by NCPA) including, but not limited to, increasing internal Generation within NCPA's System or curtailing NCPA MSS Member Load as necessary. If the ISO determines, in

accordance with Good Utility Practice, that NCPA's System is not the cause of the existing or anticipated exceedance, the ISO may require third parties to take necessary action to reduce flows on overloaded circuits or reduce simultaneous power flows between the ISO Controlled Grid and NCPA's System if applicable and allowable through arrangements that the ISO may have with such third parties or pursuant to the ISO's authority under the ISO Tariff or its delegated jurisdictional authority through WECC or NERC. If the ISO is unable to determine a) whether NCPA's System caused, or b) to what extent NCPA's System may have caused, such exceedance or anticipated exceedance, or c) the Parties do not agree on the causation determination, the Parties agree, in accordance with Good Utility Practice, to confer and mutually decide what actions shall be taken.

### **ISO Responsibilities**

- 2.0 The ISO shall operate the ISO Controlled Grid at each Point of Interconnection with NCPA in such manner as to avoid any material or adverse impact on NCPA facilities. In accordance with this performance goal, the ISO shall:
- 2.1 Participate with all affected parties (including NCPA and PG&E) in the development of joint power quality performance standards and jointly maintain compliance with such standards.
- 2.2 Observe NCPA grid voltage limits specified in Attachment 1 including requirements for reduced voltage on ISO Controlled Grid facilities which apply during heavy fog (or other unusual operating conditions) as needed to minimize the risk of insulator flashover. Any anticipated reduction in operating voltages on ISO Controlled Grid facilities shall be studied and established by NCPA and the ISO.
- 2.3 Approve NCPA's maintenance requests in a timely manner for transmission facilities that impact the ISO Controlled Grid, and shall not unreasonably withhold approval of such requests for authorization to perform energized insulator washing work or to take planned Outages needed to replace or insul-grease insulators.
- 2.4 Support NCPA investigation of power quality incidents, and provide related data to NCPA in a timely manner.
- 2.5 Support installation of apparatus on the ISO Controlled Grid to improve power quality, and take all reasonable measures to investigate and mitigate power quality concerns caused by actions or events in neighboring systems or control areas.
- 2.6 Maintain load power factor at each Point of Interconnection with NCPA's System in accordance with Section 8.3 of the Agreement.



**SCHEDULE 2**  
**ATTACHMENT 1**

**NCPA GRID VOLTAGE LIMITS**

There are no NCPA grid voltage limitations at the present time.

**SCHEDULE 3****RIGHTS OF ACCESS TO FACILITIES****[Section 4.5.1]**

- 1.0 Equipment Installation.** In order to give effect to this Agreement, a Party that requires use of particular equipment (the equipment owner) may require installation of such equipment on property owned by the other Party (the property owner), provided that the equipment is necessary to meet the equipment owner's service obligations and that the equipment shall not have a negative impact on the reliability of the service provided, nor prevent the property owner from performing its own obligations or exercising its rights under this Agreement.
- 1.1 Free Access.** The property owner shall grant to the equipment owner free of charge reasonable installation rights and rights of access to accommodate equipment inspection, maintenance, repair, upgrading, or removal for the purposes of this Agreement, subject to the property owner's reasonable safety, operational, and future expansion needs.
- 1.2 Notice.** The equipment owner shall provide reasonable notice to the property owner when requesting access for site assessment, equipment installation, or other relevant purposes. Such access shall not be provided unless the parties mutually agree to the date, time, and purpose of each access. Agreement on the terms of the access shall not be unreasonably withheld or delayed.
- 1.3 Removal of Installed Equipment.** Following reasonable notice, the equipment owner shall be required, at its own expense, to remove or relocate equipment, at the request of the property owner, provided that the equipment owner shall not be required to do so if it would have a negative impact on the reliability of the service provided, or would prevent the equipment owner from performing its own obligations or exercising its rights under this Agreement.
- 1.4 Costs.** The equipment owner shall repair at its own expense any property damage it causes in exercising its rights and shall reimburse the property owner for any other reasonable costs that it may be required to incur to accommodate the equipment owner's exercise of its rights under Section 4.5 of this Agreement.
- 2.0 Rights to Assets.** The Parties shall not interfere with each other's assets, without prior written agreement.



**3.0 Inspection of Facilities.** In order to meet their respective obligations under this Agreement, each Party may view or inspect facilities owned by the other Party. Provided that reasonable notice is given, a Party shall not unreasonably deny access to relevant facilities for viewing or inspection by the requesting Party.

**SCHEDULE 4****MAINTENANCE COORDINATION****[Section 5.1.2]**

By October 15<sup>th</sup> of each year, NCPA shall exchange with the ISO a provisional planned outage program for all lines and equipment in Schedule 1. That document will be updated quarterly or as changes occur to the proposed schedule.

The ISO shall approve all proposed outages on equipment and lines listed on Schedule 1 unless a proposed outage would cause the ISO to violate Applicable Reliability Criteria. Approval of outages shall not be unreasonably withheld.

As noted on Schedule 1, some facilities are jointly owned by NCPA and one or more other entities. The ISO acknowledges that, under the terms of the operating agreements applicable to each such facility, NCPA may not be able to control unilaterally the timing of outages. NCPA shall exercise its rights under the operating agreements, if any, applicable to each jointly owned facility listed on Schedule 1 to coordinate scheduling of outages with the ISO in accordance with this Agreement to the maximum extent possible and shall not enter into any operating agreement or amendment to an existing operating agreement with respect to any such facility that diminishes NCPA's rights to schedule outages. However, NCPA shall communicate directly to the ISO regarding its coordination of scheduled outages.

Applications for scheduled work shall be submitted to the ISO by NCPA's Grid Operations group via means to be agreed to by both Parties. The documents submitted by NCPA shall record the details for all work and become the database for reporting and recording outage information.

**SCHEDULE 5****CRITICAL PROTECTIVE SYSTEMS****[Section 5.3]**

Distribution protective relay schemes affecting the ISO Controlled Grid are those associated with transformers that would trip transmission breakers and/or busses at NCPA's Points of Interconnection when activated. These would include any of the following:

1. High Side Overcurrent Relays
2. Differential Overcurrent Relays
3. Sudden Pressure Relays
4. Low Oil Relays
5. Neutral Ground Overcurrent Relays
6. On fuse protected transformers, it would be the high-side fuses.

NCPA shall provide the ISO a description of the relaying schemes at the Points of Interconnection prior to commencing operations as an MSS Aggregator.

**SCHEDULE 6**

**[PRIVILEGED MATERIAL REDACTED PURSUANT TO  
18 C.F.R. § 388.112]**





## **SCHEDULE 7**

### **EMERGENCIES**

#### **[Section 7.2]**

The ISO shall notify NCPA's Power Control Center ("PCC") Operator, as identified in Schedule 6, of the emergency, including information regarding the cause, nature, extent, and potential duration of the emergency. The PCC Operator shall make the appropriate notifications within NCPA organization. The PCC Operator shall then take such actions as are appropriate for the emergency.

NCPA shall make requests for information from the ISO regarding emergencies through contacts to the ISO's Operations Shift Supervisor, by NCPA's PCC Operator, or NCPA's Information Officer may coordinate public information with the ISO Communication Coordinator.

NCPA is required to estimate service restoration by geographic areas, and shall use its call center and the media to communicate with customers during service interruptions. NCPA is also required to communicate the same information to appropriate state and local governmental entities. For transmission system caused outages, the ISO's Operations Shift Supervisor will notify the PCC Operator, who will make appropriate notifications within NCPA's organization of any information related to the outage such as cause, nature, extent, potential duration and customers affected.

The PCC Operator and Grid Control Center logs, Electric Switching Orders and Energy Management System temporal database will be used in preparation of outage reviews. These documents are defined as the chronological record of the operation of the activities which occur with the portion of the electrical system assigned to that control center. The log shall contain all pertinent information, including orders received and transmitted, relay operations, messages, clearances, accidents, trouble reports, daily switching program, etc.

NCPA shall retain records in accordance with its standard practices for six years.

**SCHEDULE 8****UNDERFREQUENCY LOAD SHEDDING****[Section 7.4.1]**

The objective of the Under Frequency Load Shedding (UFLS) program is to provide security and protection to the interconnected bulk power network by arresting frequency decay during periods of insufficient resources

NCPA's UFLS program establishes Under Frequency Load Shedding objectives consistent with the load shedding policies of the Western Electricity Coordinating Council, the North American Electric Reliability Council, and NCPA. NCPA's UFLS program, as implemented by the NCPA MSS Members, shall at all times comport with the requirements of the WECC Coordinated Off-Nominal Frequency Load Shedding and Restoration Plan (Final Report November 25, 1997, as revised December 5, 2003) and any of its subsequent amendments. NCPA's UFLS program utilizes WECC planning criteria in this area. Per WECC requirements, UFLS is on the feeder side of the transformer.

NCPA's UFLS program, other than for the Port of Oakland, is set forth in Attachment A to NCPA's EAP, which is attached to Schedule 11, and incorporates the tripping scheme set forth therein.

The Port of Oakland will continue to participate in the UFLS program of PG&E. The Port of Oakland's Interconnection Agreement with PG&E, dated December 15, 2000 (with a termination date in Section 5.3.1(b) of that agreement of no later than January 1, 2021) and which, to the extent relevant to the UFLS obligations under this agreement, is incorporated herein by reference, provides the Port of Oakland's UFLS program for distribution circuits when required by PG&E in accordance with the PG&E Electrical Emergency Plan (EEP) dated June 20, 2002 and which, to the extent relevant to the UFLS obligations under this agreement, is incorporated herein by reference. NCPA will develop a separate UFLS program for the Port of Oakland prior to such time as the Port of Oakland's Interconnection Agreement with PG&E described above may cease to apply for any reason to the Port of Oakland, including without limitation by way of amendment or termination, or that would in the ISO's discretion effectively cease to satisfy the UFLS obligations under this Agreement. Until such time as NCPA and the Port of Oakland implement a program for Port of Oakland's UFLS independent of PG&E, NCPA and the Port of Oakland shall continue to operate in accordance with the applicable PG&E EEP dated June 30, 2002 and the Port of Oakland's Interconnection Agreement with PG&E, dated December 15, 2000. NCPA will notify the ISO immediately if the PG&E UFLS program described above ceases to apply to Port of Oakland.

This Schedule 8 and the NCPA EAP shall be revised to incorporate updated, including any separate UFLS program for Port of Oakland, upon implementation by NCPA.



## **SCHEDULE 9**

### **OTHER AUTOMATIC LOAD SHEDDING**

#### **[Section 7.4.1]**

NCPA has no other automatic load shedding devices other than those identified in Schedule 8.



## **SCHEDULE 10**

### **MANUAL LOAD SHEDDING**

#### **[Section 7.4.1]**

Criteria for the implementation of manual Load Shedding are set forth in the NCPA Emergency Action Plan attached to Schedule 11.

**SCHEDULE 10A****ROTATING LOAD CURTAILMENT PROCEDURES****[Section 7.4.1]**

NCPA's rotating Load curtailment procedures are described in the NCPA Emergency Action Plan attached to Schedule 11. To maintain a minimum amount of continuously interrupted Load, as directed by the ISO, for an extended amount of time, no portion of NCPA's interrupted Load shall be restored unless an equal or greater amount of Load is interrupted first.



**SCHEDULE 10B**

**INTERRUPTIBLE LOAD**

**[Section 7.4.1]**

Should NCPA establish an interruptible Load program and seek to bid any interruptible Load into any ISO market, NCPA shall provide a complete description of the program to the ISO at least sixty (60) days prior to the submission of the first such bid by NCPA's Scheduling Coordinator and all applicable Operating Procedures shall be followed.

**SCHEDULE 11**

**[PRIVILEGED MATERIAL REDACTED PURSUANT TO  
18 C.F.R. § 388.112]**

**SCHEDULE 12****LOAD RESTORATION****[Section 7.4.3]**

NCPA shall follow the procedures set forth below in this Schedule 12 in promoting orderly, coordinated restoration of electric systems after a major system disturbance has occurred which resulted in load shedding by frequency relays in California.

1. Immediately after load shedding by frequency relay has occurred in NCPA's System, NCPA shall remain in contact with PG&E's Area Control Center (ACC) until normal frequency has been restored throughout the ISO Control Area or the ISO Shift Manager has concluded that such full-time communications can be terminated. Emergency communications over the California ACC Hot-line will be under the direction of the ISO Shift Manager and the senior dispatcher present at the PG&E ACC(s).
2. Manual load restoration shall not normally be initiated until the California ACC Hot Line is attended. No load is to be manually restored unless directed by the ISO, either directly or through its assignee, provided that the procedure for the ISO's designation of any assignee is agreed to by NCPA, after the frequency has recovered and there is indication that the frequency can be maintained. NCPA shall await direction from the ISO or its assignee, who will be in contact with the ISO Shift Manager. The ISO Shift Manager shall determine whether adequate generation resources are available on line to support the load to be restored.
3. If the ISO cannot meet the WECC and NERC Control Area Disturbance Control Standard or the Control Performance Standard post disturbance, no manual load restoration shall be permitted. If the frequency is such that automatic load restoration occurs under these conditions, if NCPA has restored load automatically, it will manually shed an equivalent amount of load to offset the load which was automatically restored.
4. Restoration of ties and off-site power supply to nuclear generating facilities should be given top priority. Manual load restoration will be deferred during periods of tie restoration. NCPA should be equipped and prepared to drop load manually when necessary to allow frequency recovery sufficient to re-establish ISO intra-area ties and ties between the ISO Control Area and outside systems. Where manual load shedding is required, the ISO shall make reasonable efforts to allocate the load shedding requirement equitably among NCPA, UDCs, and MSS Operators where load shedding shall be beneficial, and such load shedding shall be made in accordance with Section 7.4.
5. NCPA shall use its existing plans and priorities to restore load within the parameters given by the ISO, giving the appropriate priority to essential





services such as military, public safety agencies, water treatment plants, sewage treatment plants, etc.

**SCHEDULE 13**

**EXISTING CONTRACTS, ENCUMBRANCES AND TRANSMISSION OWNERSHIP RIGHTS**

[Sections 9.1.1 and 11.3]

Existing Contract or Encumbrance	Amount (MW)	Scheduling Timelines	
		To PG&E	To ISO
South of Tesla Principles (SOTP) between PG&E and TANC (PG&E # 143)	102* (81 + 21)	30 min prior to the start of the active hour	In accordance with the ISO Tariff
<b>NCPA System Transmission Ownership Rights in the ISO Control Area at Control Area Interties (and Related Contracts)</b>	<b>Amount (MW)</b>	<b>Scheduling Timelines</b>	
			To ISO
Plumas-Sierra Rural Electric Cooperative transmission ownership rights up to Marble Substation intertie (as described in the ISO's Interconnected Control Area Operating Agreement with Sierra Pacific Power Co. for the Marble Substation intertie)	25	N/A	30 min prior to the start of the active hour
COTP Terminus (as described in the ISO-SMUD Interconnected Control Area Operating Agreement)	382 North to South* (252 + 130) 292 South to North* (192 + 100)	N/A	30 min prior to the start of the active hour

\*The amount of NCPA Members Existing Contracts and Encumbrances, and transmission ownership rights for the COTP Terminus, shown above aggregates NCPA's and SVP's COTP and SOTP rights. Such COTP and SOTP amounts are subject to interim adjustment in accordance with the Settlement Agreement. Interim adjustments shall not require amendment to this Agreement; provided, however, permanent changes to these amounts will be deemed an amendment to this Agreement and shall be given affect in accordance with the Settlement Agreement. The Agreement COTP Terminus transmission ownership rights amounts are contingent upon the direction of the transaction and the California Oregon Intertie rating. The SOTP amounts are contingent upon the availability of unused transmission service



rights as further described in the Path 15 Operating Instructions (Appendix B, Transmission Control Agreement, as approved in Docket ER99-1770 and as may be amended or superceded).

**Note:** Details regarding the agreed upon scheduling provisions for each Existing Contract or Encumbrance are described in the Settlement Agreement.



## **SCHEDULE 14**

### **GENERATING UNITS AND PARTICIPATING LOADS**

#### **[Section 10.1]**

NCPA has identified in the attached table all of the individual Generating Units and Participating Loads that it owns or controls on NCPA's System, together with certain information required by the ISO.

**Schedule 14**

**Section 1: Technical Characteristics of Generating Units  
Northern California Power Agency**

Name of Facility (Including Unit Number)	QF (Y/N)	RMR (Y/N)	Name of Generating Unit Owner	ISO Resource ID	Type of Unit	Primary Fuel Type	Designed Gross (Nameplate) Capacity 1/ (MW)	Limitations (Reference #)
Alameda Gas Turbine #1	N	Y	NCPA	ALMEGT_1_UNIT 1	Combustion Turbine	Natural Gas	25.40	THERM2
Alameda Gas Turbine #2	N	Y	NCPA	ALMEGT_1_UNIT 2	Combustion Turbine	Natural Gas	25.40	THERM2
Collierville Hydro Aggregate	N	N	NCPA	COLVIL_7_PL1X2	Hydro Aggregate	Water	252.50	HYD1
Collierville Hydro Unit 1	N	N	NCPA		Hydro	Water	126.50	HYD1
Collierville Hydro Unit 2	N	N	NCPA		Hydro	Water	126.00	HYD1
Geothermal Plant 1 - Unit 1	N	N	NCPA	NCPA_7_GP1UN1	Geothermal	Geothermal	55.00	GEO1, 6
Geothermal Plant 1 - Unit 2	N	N	NCPA	NCPA_7_GP1UN2	Geothermal	Geothermal	55.00	GEO2, 6
Geothermal Plant 2 - Unit 3	N	Y	NCPA	NCPA_7_GP2UN3	Geothermal	Geothermal	55.00	GEO4, 7
Geothermal Plant 2 - Unit 4	N	Y	NCPA	NCPA_7_GP2UN4	Geothermal	Geothermal	55.00	GEO5, 7
Graeagle Hydro Project	N	N	Henwood	GRGLHP_6_UNITA1	Hydro			HYD2
Lake Mendocino Hydro Aggregate	N	N	City of Ukiah	UKIAH_7_LAKEMN	Hydro Aggregate	Water	3.50	HYD4
Lake Mendocino Unit 1	N	N	City of Ukiah		Hydro	Water	1.00	
Lake Mendocino Unit 2	N	N	City of Ukiah		Hydro	Water	2.50	
Lodi Gas Turbine	N	N	NCPA	LODI25_2_UNIT 1	Combustion Turbine	Natural Gas	25.40	THERM3
Lodi Steam Injected Gas Turbine	N	N	NCPA	STIGCT_2_LODI	Combustion Turbine	Natural Gas	51.20	THERM4, 5
Spicer Hydro Aggregate	N	N	NCPA	SPICER_1_UNITS	Hydro Aggregate	Water	6.00	HYD3
Spicer Hydro Unit 1	N	N	NCPA		Hydro	Water	2.80	
Spicer Hydro Unit 2	N	N	NCPA		Hydro	Water	2.80	
Spicer Hydro Unit 3	N	N	NCPA		Hydro	Water	0.50	

1/ Current effective values for purposes of scheduling Energy and bidding to provide Energy and/or Ancillary Services in ISO markets may differ from those set forth in this Schedule 1, depending on the results of ISO performance testing pursuant to Sections 2.5.24 and 2.5.25 of the ISO Tariff and Section 9 of the ISO Ancillary Services Requirements Protocol. This and other values are subject to certification by the ISO in accordance with Section 4.3.2 of the Participating Generator Agreement. More detailed Generating Unit operating data must be provided at a time and in a format specified by the ISO in response to ISO requests pursuant to ISO Tariff Sections 5.3 and 5.8.1.

## SCHEDULE 14

### Section 2: Limitations - Thermal Units Northern California Power Agency

Reference #	Description of Limitation
THERM1	Deleted
THERM2	For the Alameda Gas Turbine Units, air emissions permit limits total generation at the Alameda site to 25,800 gross MWhr per year. (ie. Any combination of generation from Alameda Unit 1 and 2 is limited to 25,800 MWhr per year). Annual operating hours limited to 877 hours. Each unit has a minimum off time of 15 minutes.
THERM3	For the Lodi Gas Turbine unit, air emissions permit limits daily operating hours (See Lodi Limitations tab). Unit is limited to 7 gallons of diesel fuel through the starting engine or approximately 2 starts per day. (a failed start counts as a start). Annual operating hours are limited to 877 hours. Unit has a minimum off time of 15 minutes.
THERM4	For the Lodi STIG unit, daily emissions limits are 112 lbs of NOx. At start up, approximately 50 lbs of NOx are emitted over a three to four hour period. After that, the unit emits approximately 3 lbs of NOx per hour at rated capacity. These emissions limits would be reached after 23 hours of operation at the Normal Maximum Operating Limit specified in Section 1 from a single start-up.
THERM5	Lodi STIG 49.9MW net per permit conditons and 1.3MW of parasitic load.

**Lodi Gas Turbine**  
**Additional Limitations based on Generation Levels**

<b>Gross Generation (MW)</b>	<b>Daily Operating Hours</b>
22.2	11
25	10.7
26	10.3
27	9.9
28	9.5

**SCHEDULE 14**

**Section 2: Limitations - Hydro Units  
Northern California Power Agency**

Reference #	Description of Limitation
HYD1	For Collierville Hydro, FERC license requirements and California State Fish Game requirements govern Hydro facility operations. Reservoir spills at Elevation of 3370 feet. Reservoir minimum operating elevation of 3318 feet (No spilling allowed). Unit trips at reservoir elevation of 3280 feet. Operations at the minimum operating level of 3-5 mw will be determined by cooling water temperatures. At this time the maximum station ramping rate has been determined to be 25MW/minute based on the CCWD water tap. Unit 1 and 2 will be operated as a single unit with a single resource ID.
HYD2	Graeagle Hydro Project is exempted from NCPA scheduling and ISO metering. When it runs, it will have the effect of reducing load within Plumas Sierra MSS.
HYD3	For Spicer Hydro Plant, FERC license requirements and California State Fish Game requirements govern Hydro facility operations. Minimum elevation for 2.75 MW output is 6560 feet. Maximum elevation is 6610 feet. Minimum elevation to operate is 6488 feet. New Spicer ramp rate (maximum) is 14 hours to full load. New Spicer ramp rate (maximum) from full load to minimum load is 16 hours.
HYD4	Lake Mendocino Hydro is out of service for refurbishment and is inactive within the ISO systems until 30 days advance notice from NCPA.



## SCHEDULE 14

### Section 2: Limitations - Geothermal Units Northern California Power Agency

Reference #	Description of Limitation
GEO1	For Geothermal Plant 1 - Unit 1, Aggregate Geo operations are limited to Confidential Geothermal Operating Plan (see tab)
GEO2	For Geothermal Plant 1 - Unit 2, Aggregate Geo operations are limited to Confidential Geothermal Operating Plan (see tab)
GEO3	Deleted
GEO4	For Geothermal Plant 2 - Unit 3, Aggregate Geo operations are limited to Confidential Geothermal Operating Plan (see tab)
GEO5	For Geothermal Plant 2 - Unit 4, Aggregate Geo operations are limited to Confidential Geothermal Operating Plan (see tab)
GEO6	For Geothermal Plant 1, individual unit ratings for units 1 and 2 are 44 and 42 MW, respectively. When both units are operating, output reduces to 41 and 33 MW, respectively.
GEO7	For Geothermal Plant 2, individual unit ratings for units 3 and 4 are 42.42 and 46.03 MW, respectively. When both units are operating, output reduces to 36 and 33 MW, respectively.
GEO8	Deleted

## SCHEDULE 14

### Section 2: Limitations Northern California Power Agency

#### Geothermal Operating Plan <sup>(4)</sup>

Geothermal Unit	Daily Max <sup>(1)</sup> Operating Cap (MWG)	Daily Min Operating Cap (MWG)	Annual Avg Capacity (MWG)
1	35	35	34
2	35	35	34
3	32	20 <sup>(2)</sup>	30
4	35	20 <sup>(2)</sup>	34
Total	137	110	132-134 <sup>(3)</sup>

<sup>(1)</sup> Daily Max Generation varies as steam field conditions change

<sup>(2)</sup> Single unit operation at minimum Plant 2 load of 20 MW

<sup>(3)</sup> Annual target range set by changes in plant, steamfield, availability factor and market conditions

<sup>(4)</sup> Values indicated are applicable at the time of revision of this MSS Schedule 14. Stated values may vary over time due to natural changes in the steam field conditions that cannot be precisely predicted or forecasted. Values will be revised as necessary upon subsequent revisions to this MSS Schedule 14.

**SCHEDULE 15****METERING OBLIGATIONS****[Section 12.2]****Obligations and Rights of NCPA**

- 1.0 Submission of Meter Data through the ISO's Revenue Meter Data Acquisition and Processing System ("MDAS").** NCPA agrees to make available to the ISO through MDAS its Meter Data in accordance with the ISO Tariff. The ISO's requirements regarding the frequency with which it requires Meter Data to be made available to it through MDAS by NCPA are referred to in the Metering Protocol of the ISO Tariff.
- 1.1 Meter Information.** NCPA shall provide in the format prescribed by Schedule 15.1 the required information with respect to all of its meters used to provide Meter Data to the ISO. NCPA must immediately notify the ISO of any changes to the information provided to the ISO in accordance with this Section and provide the ISO with any information in relation to such change as reasonably requested by the ISO. NCPA shall have the right to modify Schedule 15.1, although such modification shall not constitute an amendment to this Agreement.
- 1.2 Transformer and/or Line Loss Correction Factor.** If NCPA uses low voltage side metering, it shall use the ISO approved transformer and/or line loss correction factor referred to in the Metering Protocol of the ISO Tariff.
- 1.3 Rights to Access Metering Facilities.** NCPA shall use its best efforts to procure any rights necessary for the ISO to access all Metering Facilities of NCPA MSS Members to fulfill its obligations under the ISO Tariff, and its obligations under this Agreement. If, after using its best efforts, NCPA is unable to provide the ISO with such access rights, NCPA shall ensure that one of its employees is an ISO Authorized Inspector and such employee undertakes, at the ISO's request, the certification, testing, inspection and/or auditing of those Metering Facilities in accordance with the procedures established pursuant to the Metering Protocol of the ISO Tariff, including the requirement to complete and provide to the ISO all necessary documentation. The ISO acknowledges that it will not be prevented from fulfilling its obligations under the ISO Tariff or this Agreement by reason of the fact that it is provided with escorted access to the Metering Facilities of NCPA.
- 1.4 Security and Validation Procedures.** The security measures and the validation, editing, and estimation procedures that the ISO shall apply to Meter Data made available to the ISO by NCPA shall be as referred to in the Metering Protocol of the ISO Tariff.



- 1.5 Authorized Users.** In addition to the persons referred to in the ISO Tariff, including NCPA and the relevant Scheduling Coordinator, as being entitled to access Meter Data on MDAS, NCPA may set forth in Schedule 15.2 of this Agreement any additional authorized users that shall be entitled to access NCPA's Settlement Quality Meter Data held by the ISO. NCPA shall include in Schedule 15.2 as authorized users the relevant UDCs and TOs. The ISO shall provide the authorized users with any password or other information necessary to access NCPA's Settlement Quality Meter Data held by the ISO on MDAS. Any amendment or addition to Schedule 15.2 shall not constitute an amendment to this Agreement.
- 1.6 Certification, Inspection, and Auditing of Meters.** NCPA shall be responsible for all reasonable costs incurred by the ISO or an ISO Authorized Inspector in connection with them carrying out the certification, inspection, testing or auditing of the meters identified in Schedule 15.1 from which NCPA provides Meter Data to the ISO. The ISO or ISO Authorized Inspector shall furnish NCPA, upon request, an itemized bill for such costs.

### **Obligations and Rights of the ISO**

- 2.0 Direct Polling of MDAS.** The ISO shall allow the Scheduling Coordinator representing NCPA and all authorized users to directly poll MDAS for the Meter Data relating to NCPA in accordance with the procedures referred to in the Metering Protocol of the ISO Tariff.
- 2.1 ISO as a Third-Party Beneficiary.** The ISO shall be a third-party beneficiary to any future agreement between NCPA and any other party relating to the Metering Facilities of NCPA for the purpose of granting the ISO access to any relevant information, records and facilities as needed by the ISO to fulfill its obligations under the ISO Tariff and its obligations under this Agreement.
- 2.2 Remote and Local Access to Metering Data.** The ISO shall provide NCPA any password or other requirements necessary for NCPA to access its Meter Data remotely or locally at the meter.

### **Calculation of NCPA Settlement Quality Meter Data**

The calculation of NCPA's Settlement Quality Meter Data ("SQMD") shall be made in accordance with a calculation procedure that is mutually agreed by the Parties, which calculation procedure will generally be as follows:

NCPA SQMD (Gross Load) = Meter Data at the Points of Interconnection  
plus Metered Generation from Internal Generating  
Units



This calculation will be done on an aggregated basis, by Demand zone, consistent with the level of aggregation of the Schedules that will be submitted to the ISO and to PG&E.

**SCHEDULE 15.1**

**[PRIVILEGED MATERIAL REDACTED PURSUANT TO  
18 C.F.R. § 388.112]**



## **SCHEDULE 15.2**

### **ACCESS TO METER DATA AND AUTHORIZED USERS**

[NCPA shall provide in Schedule 15.2 a list of all authorized users of NCPA's Settlement Quality Meter Data and any restrictions or limitations placed on them.]

PG&E

Western Area Power Administration

**SCHEDULE 16**

**TRANSMISSION RELIABILITY CRITERIA**

**[Section 13.5]**

For transmission reliability, NCPA shall abide by all NERC and WECC Planning Criteria and the following:

**Power Flow Assessment:**

	Criteria	
Contingencies	Thermal <sup>3</sup>	Voltage <sup>4</sup>
Generating unit <sup>1</sup>	A/R	A/R
Transmission line <sup>1</sup>	A/R	A/R
Transformer <sup>1</sup>	A/R <sup>5</sup>	A/R <sup>5</sup>
Overlapping <sup>2</sup>	A/R	A/R

- 1 All single contingency outages (i.e. generating unit, transmission line or transformer) will be simulated on participating transmission owners' local area systems.
- 2 Key generating unit out, system readjusted, followed by a line outage.
- 3 Applicable Rating – Based on ISO Transmission Register or facility upgrade plans.
- 4 Applicable Rating – ISO Grid Planning Criteria or facility owner criteria as appropriate.
- 5 Based on judgement of ISO and facility owner, a thermal or voltage criterion violation resulting from a transformer outage may not be cause for Reliability Must-Run Generation solution if the violation is considered marginal (e.g. acceptable loss of life or low voltage), otherwise (e.g. unacceptable loss of life or voltage collapse) a Reliability Must-Run Generation solution would be indicated.

**Post Transient Load Flow Assessment:**

Contingencies	Reactive Margin Criteria <sup>2</sup>
Selected <sup>1</sup>	A/R

- 1 If power flow results indicate significant low voltages for a given power flow contingency, simulate that outage using the post transient load flow program. The post-transient assessment will develop appropriate Q/V and/or P/V curves.
- 2 Applicable Rating – positive margin based on 105% of 1 in 2 year load forecast.





**Stability Assessment:**

Contingencies

Stability Criteria<sup>2</sup>

Selected<sup>1</sup> A/R

- 1 If power flow or post transient study results indicate significant low voltages or marginal reactive margin for a given contingency, simulate that outage using the dynamic stability program.
- 2 Applicable Rating – ISO Grid Planning Criteria or facility owner criteria as appropriate.

**SCHEDULE 17****NOTICES****[Section 19.1]****NCPA**

Name of Primary

Representative: Don Dame

Title: Asst General Manager

Address: 180 Cirby Way

City/State/Zip Code: Roseville CA 95678

Email Address: ddame@ncpa.com

Phone: (916) 781 - 4207

Fax No: (916) 781 - 4252

Name of Alternative

Representative: Matt Foskett

Title: Supervisor Power Contracts

Address: 180 Cirby Way

City/State/Zip Code: Roseville CA 95678

Email Address: matt@ncpa.com

Phone: (916) 781 - 4217

Fax No: (916) 781 - 4252

**ISO****Name of Primary**

**Representative:** Michael D. Dozier  
**Title:** Lead Contracts Negotiator  
**Address:** 151 Blue Ravine Road  
**City/State/Zip Code:** Folsom, CA 95630  
**Email Address:** mdozier@caiso.com  
**Phone:** (916) 608-5708  
**Fax No:** (916) 351-2487

**Name of Alternative**

**Representative:** Philip D. Pettingill  
**Title:** Manager of Infrastructure Policy & Contract Negotiation  
**Address:** 151 Blue Ravine Road  
**City/State/Zip Code:** Folsom, CA 95630  
**Email Address:** ppettingill@caiso.com  
**Phone:** (916) 608-7241  
**Fax No:** (916) 351-2264



**SCHEDULE 18**

**NCPA MEMBERS**

**[Section 1.2]**

**NCPAB**

Alameda Power & Telecom

City of Biggs

City of Gridley

City of Healdsburg

City of Lodi

City of Lompoc

City of Palo Alto

City of Ukiah

Plumas-Sierra Rural Electric Cooperative

Port of Oakland (The Port of Oakland's Oakland International Airport Service Area, the Port of Oakland Harbor Service Area, and the Port of Oakland Army Base)

**NCPAS**

City of Santa Clara (Silicon Valley Power)

**ATTACHMENT C**

---

---

**CALIFORNIA INDEPENDENT SYSTEM  
OPERATOR**

**AND**

**NORTHERN CALIFORNIA POWER AGENCY**

**AMENDED AND RESTATED  
NCPA MSS AGGREGATOR AGREEMENT**

---

---

**CALIFORNIA INDEPENDENT SYSTEM OPERATOR  
AND  
NORTHERN CALIFORNIA POWER AGENCY**

**AMENDED AND RESTATED  
NCPA MSS AGGREGATOR AGREEMENT**

**THIS AGREEMENT** is dated this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_ and is entered into, by and between:

(1) **Northern California Power Agency**, a joint powers agency organized under the laws of the State of California, having its registered and principal place of business located at 180 Cirby Way, Roseville, California 95678 (“NCPA”);

and

(2) **California Independent System Operator Corporation**, a California non-profit public benefit corporation having its principal place of business located in such place in the State of California as the ISO Governing Board may from time to time designate, initially 151 Blue Ravine Road, Folsom California 95630 (the “ISO”).

NCPA and the ISO are hereinafter referred to individually as “Party” or collectively as the “Parties.”

**Whereas:**

**A.** NCPA and the NCPA MSS Members are engaged in, among other things, generating and transmitting electric power in Northern California, and distributing electric power in the Service Areas of the NCPA MSS Members comprising NCPA’s System, with NCPA serving as the MSS Aggregator for the Metered Subsystem of each NCPA MSS Member;

**B.** The ISO, a NERC or its successor-certified Control Area, is engaged in, among other things, exercising Operational Control over certain electric transmission facilities forming the ISO Controlled Grid, scheduling transactions that utilize those transmission facilities and, operating certain markets, including markets for Imbalance Energy and Ancillary Services, pursuant to the terms of the ISO Tariff and has certain statutory obligations under California law to maintain the reliability of the ISO Controlled Grid, as well as certain NERC and Western Electricity Coordinating Council or its successor (“WECC”)-mandated responsibilities to ensure the reliable operation of the entire electric grid within the ISO Control Area;



- C. NCPA's System is within the ISO Control Area and is interconnected to the ISO Controlled Grid;
- D. NCPA and the NCPA MSS Members desire to continue to operate the generation, transmission and distribution resources of NCPA's System in an integrated manner to reliably serve the Loads of each NCPA MSS Member and also desire, as or through a Scheduling Coordinator, to schedule transactions using the ISO Controlled Grid and participate in the ISO's markets as a buyer and a seller;
- E. The Parties are entering into this Agreement in order to establish the terms and conditions on which (1) NCPA will operate NCPA's System electric resources within the ISO Control Area; (2) NCPA will, as or through a Scheduling Coordinator, schedule transactions using the ISO Controlled Grid and participate in the ISO's markets; and (3) the Parties will meet their obligations under the ISO Tariff, as may be modified by this Agreement, in connection therewith;
- F. NCPA intends to continue to utilize NCPA's System resources to follow the Load of NCPA MSS Members, make economic resource decisions, and the intent of the Parties is that any ISO charges will be charged to NCPA's Scheduling Coordinator based on the principle of cost causation, with due regard for historic considerations, timing and transition issues, and other relevant factors;
- G. In order to maintain the reliability of the interconnected electric systems encompassed by the WECC, the WECC RMS Agreement requires the ISO to require all Generators in its Control Area, including NCPA, to comply with certain WECC reliability criteria and to be subject to penalties imposed by the WECC Reliability Criteria Agreement should they fail to do so, which requirements are set forth in Section 10.4;
- H. NCPA is a specially organized agency under the Constitution of the State of California and utilizes tax-exempt financing for one or more of its projects that restricts the amount of private use of such projects; and
- I. NCPA and the NCPA MSS Members represent that they have a responsibility to serve their customer Loads pursuant to California Public Utilities Code Section 10005.

NOW THEREFORE, in consideration of the mutual covenants set forth herein, **THE PARTIES AGREE** as follows:



**ARTICLE I  
DEFINITIONS AND INTERPRETATION**

- 1.1 Master Definitions Supplement.** Unless defined in the introduction or Section 1.2 of this Agreement, all terms used in this Agreement with initial capitalization shall have the same meaning as those contained in the Master Definitions Supplement to the ISO Tariff.
- 1.2 Special Definitions for this Agreement.** In this Agreement, the following terms shall have the meanings set opposite them:
- “MSS Aggregator”** means NCPA acting as a single MSS Operator on behalf of the multiple, non-contiguous Metered Subsystems of the NCPAB members and on behalf of SVP to the extent agreed upon between NCPA and SVP for implementation of SVP’s individual MSS agreement.
- “NCPA’s System”** means all transmission and distribution facilities owned or controlled by the NCPA MSS Members, and all Generating Units within the ISO Control Area owned or controlled by NCPA Members. A description of the Generating Units and Points of Interconnection comprising NCPA’s System is set forth in Schedule 1 and Schedule 14.
- “NCPA Members”** means NCPA MSS Members and Roseville.
- “NCPA MSS Members”** means NCPAB members and SVP.
- “NCPAB”** means those MSS Operator entities identified in Schedule 18 that will be bound under this Agreement.
- “Point of Interconnection”** means any point at which the Generating Units and Service Areas of the NCPA MSS Members that are part of NCPA’s System are directly interconnected with the ISO Controlled Grid or with any other portion of the interconnected electric grid in the ISO Control Area. The initial Points of Interconnection are described in Section 4.1.
- “Replacement IA”** means the Interconnection Agreement between NCPA and PG&E that replaces the NCPA-PG&E Interconnection Agreement designated as PG&E Rate Schedule FERC No. 142.
- “Roseville”** means the City of Roseville, which has joint ownership of generation facilities operated and scheduled by NCPA for the NCPA Members.
- “Settlement Agreement”** means the Settlement Agreement Among Pacific Gas and Electric Company, Northern California Power Agency, Silicon Valley Power of Santa Clara, California, the City of Roseville, California and the California



Independent System Operator Corporation in FERC Dockets ER01-2998-000, ER02-358-000, and EL02-64-000, as accepted by FERC.

“**SVP**” means Silicon Valley Power, which has signed an individual MSS agreement with the ISO, but will have NCPA act as Scheduling Coordinator on its behalf, including implementation of such individual MSS agreement as may be agreed upon between NCPA and SVP.

“**Under Frequency Load Shedding**” or “**UFLS**” means automatic Load Shedding, accomplished by the use of such devices as under frequency relays, intended to arrest frequency decline and assure continued operation within anticipated islands.

**1.3 Rules of Interpretation.** The following rules of interpretation and conventions shall apply to this Agreement:

- (a) the singular shall include the plural and vice versa;
- (b) the masculine shall include the feminine and neutral and vice versa;
- (c) “includes” or “including” shall mean “including without limitation”;
- (d) references to a Section, Article or Schedule shall mean a Section, Article or a Schedule of this Agreement, as the case may be, unless the context otherwise requires;
- (e) any reference to the ISO Tariff or any provision of the ISO Tariff will mean a reference to the ISO Tariff or provision then in effect as modified during the term of this Agreement, unless otherwise specifically provided;
- (f) unless the context otherwise requires, references to any law shall be deemed references to such law as it may be amended, replaced or restated from time to time;
- (g) unless the context otherwise requires, any reference to a “person” includes any individual, partnership, firm, company, corporation, joint venture, trust, association, organization or other entity, in each case whether or not having separate legal personality;
- (h) unless the context otherwise requires, any reference to a Party includes a reference to its permitted successors and assigns;
- (i) any reference to a day, week, month or year is to a calendar day, week, month or year;

- (j) the captions and headings in this Agreement are inserted solely to facilitate reference and shall have no bearing upon the interpretation of any of the terms and conditions of this Agreement; and
- (k) all references to "NCPA" herein shall be deemed to refer to both NCPA and the NCPA MSS Members.

## ARTICLE II TERM AND TERMINATION

**2.1 Effective Date.** This Agreement shall be effective as of the date it is accepted for filing and made effective by FERC, and shall remain in full force and effect until terminated pursuant to Section 2.2 or upon such other date as the Parties shall mutually agree.

### **2.2 Termination**

**2.2.1 Termination by Default.** Either Party (the terminating Party) may terminate this Agreement by giving written notice of termination in the event that the other Party (the defaulting Party) commits any default under this Agreement or the applicable provisions of the ISO Tariff which, if capable of being remedied, is not remedied within 30 days after the terminating Party has given the defaulting Party written notice of the default, unless excused by reason of Uncontrollable Forces under Article XVIII of this Agreement.

**2.2.2 Termination on Notice.** Either Party shall have the right to terminate this Agreement in accordance with this Section 2.2.2, subject to the procedural requirements set forth in Section 2.2.3. Either Party may terminate this Agreement by giving the other Party written notice at least six (6) months in advance of the intended effective date of termination. The ISO's right to terminate this Agreement in accordance with this Section 2.2.2 shall arise only after December 31, 2004.

**2.2.3 Filing.** With respect to any notice of termination given pursuant to this Section, the ISO must file a timely notice of termination with FERC. The filing of the notice of termination by the ISO will be considered timely if: (1) the request to file a notice of termination is made after the preconditions for termination have been met, and (2) the ISO files the notice of termination within 30 days of receipt of such request from NCPA or issuance of its own notice of termination. This Agreement shall terminate upon the date on which the notice of termination is permitted by FERC to become effective.

### **ARTICLE III GENERAL TERMS AND CONDITIONS**

- 3.1 Scope of Agreement.** Except as specifically provided otherwise, the provisions of this Agreement will apply only with respect to the facilities comprising NCPA's System, the facilities of NCPA MSS Members, and Loads and Generating Units of NCPA MSS Members directly connected only to NCPA's System. To the extent NCPA MSS Members have entitlements to Generating Units with Third Parties, this Agreement does not apply to such Third Parties. For the purposes of this Section 3.1, "Third Party" means any party other than NCPA, NCPA MSS Members, and the ISO. Subject to the terms of Article II, this Agreement shall not affect NCPA or NCPA MSS Members' ability to join or establish another Control Area or NCPA's right to exercise any available legal recourse to obtain or confirm that it possesses other forms of transmission rights.
- 3.2 ISO and NCPA Responsibilities.**
- 3.2.1 ISO Responsibility.** The Parties acknowledge that the ISO is responsible for the efficient use and reliable operation of the ISO Controlled Grid and the operation of the ISO's Control Area consistent with achievement of planning and Operating Reserve criteria no less stringent than those established by the WECC and NERC and in accordance with the ISO Tariff and further acknowledge that the ISO may not be able to satisfy fully these responsibilities if parties to agreements with the ISO, including NCPA, fail to comply fully with all of their obligations under those agreements.
- 3.2.2 NCPA Responsibility.** The Parties acknowledge that NCPA has a legal obligation to act in the best interests of all its member agencies that are signatories to the NCPA Joint Powers Agreement. The Parties further acknowledge that NCPA member agencies that are not signatories to MSS agreements with the ISO may have legal rights to the use and output of Generating Units and transmission facilities owned or controlled by NCPA and that these rights cannot be altered or diminished by this Agreement.
- 3.3 Relationship Between Agreement and ISO Tariff**
- 3.3.1** If and to the extent a matter is specifically addressed by a provision of this Agreement (including any schedules or other attachments to this Agreement), the provision of this Agreement shall govern notwithstanding any inconsistent provision of the ISO Tariff and, except as provided in Section 3.3.2, any ISO Tariff provision that is referenced in this Agreement.
- 3.3.2** If and to the extent this Agreement provides that a matter shall be determined in accordance with the applicable provisions of the ISO Tariff, the applicable provisions of the ISO Tariff shall govern.

- 3.3.3** Except as provided in Section 3.3.1, NCPA shall, with respect to the operation of any of the Generating Units listed in Schedule 14, comply with the requirements applicable to Participating Generators under Article 5 of the ISO Tariff and all other provisions of the ISO Tariff governing Participating Generators. Nothing in this Agreement shall obligate NCPA to execute, except as already executed, a Participating Generator Agreement with respect to any NCPA Generating Unit.
- 3.3.4** Except as provided in Section 3.3.1, NCPA shall, with respect to the operation of any Load listed in Schedule 14, comply with the requirements applicable to Participating Loads under Article 5 of the ISO Tariff and all other provisions of the ISO Tariff governing Participating Loads. Nothing in this Agreement shall obligate NCPA to execute a Participating Load Agreement with respect to the Load of any NCPA MSS Member.
- 3.3.5** Except as provided in Section 3.3.1, NCPA shall, with respect to the operation of the distribution facilities belonging to any NCPA MSS Member, comply with the requirements applicable to Utility Distribution Companies under Article 4 of the ISO Tariff. Nothing in this Agreement shall obligate NCPA or any NCPA MSS Member to execute a UDC Operating Agreement.
- 3.3.6** The applicability of any provision of the ISO Tariff to NCPA, including as provided in Sections 3.3.1 through 3.3.5, inclusive, shall, in the event of a dispute between the Parties, be determined through the ISO ADR Procedures in accordance with Article 13 of the ISO Tariff.
- 3.3.7** Nothing in this Agreement shall preclude NCPA from becoming a Participating TO by executing the TCA and fulfilling all other applicable requirements. If NCPA becomes a Participating TO, it shall comply with the requirements applicable to Participating TOs under Article 3 of the ISO Tariff or any settlement of FERC Docket No. ER00-2019.
- 3.3.8** This Agreement shall serve, with respect to NCPA, as the written agreements required by Sections 4.1.1, 5, 10.3.1, 23.1.1, and 23.4 of the ISO Tariff and the written agreement required for Participating Loads.

### **3.4 Amendment to Agreement**

- 3.4.1** Except with respect to the ISO's rights set forth in Section 3.4.2 of this Agreement, this Agreement may be modified only by mutual written agreement between the Parties. Amendments that require FERC approval shall not take effect until FERC has accepted such amendments for filing and made them effective. This shall not modify NCPA's or the ISO's rights under Section 206 of the Federal Power Act.
- 3.4.2** The ISO shall have the right to apply unilaterally under Section 205 of the Federal Power Act to change the rates, terms, and conditions under this Agreement for services provided to NCPA. In proposing any changes, unless in

response to a FERC order as provided in Section 3.7, the ISO will consider the principles in this Agreement as detailed in Section 3.5.2. Additionally, unless in response to a FERC order as provided in Section 3.7, any changes proposed by the ISO shall be subject to the following:

- 3.4.2.1** The ISO shall provide NCPA 30 days advance written notice of such change.
- 3.4.2.2** The ISO shall meet and confer with NCPA regarding the change, provided that the scheduling of such meeting shall not be unreasonably delayed.
- 3.4.2.3** NCPA may waive these requirements upon written request by the ISO.
- 3.4.2.4** The ISO shall provide NCPA with a copy of the FERC filing if, and when, made.
- 3.4.3** In addition to changes that may otherwise be contemplated by Section 3.6 or Section 3.7, the Parties recognize that their responsibilities and operations may change during the term of this Agreement. The Parties agree that, in the event any such change substantially affects the allocation of rights, responsibilities, and obligations between the Parties under this Agreement, the Parties, while continuing to honor the terms and conditions of this Agreement, will make good faith efforts to negotiate an appropriate amendment to this Agreement and shall endeavor in that process to restore that allocation.

### **3.5 Amendment to ISO Tariff.**

- 3.5.1** Nothing in this Agreement shall affect in any way the authority of the ISO to modify unilaterally the ISO Tariff in accordance with Section 19 of the ISO Tariff or of the ISO and NCPA to exercise their rights under the Federal Power Act or any other law or to pursue any legal remedies.
- 3.5.2** In making amendments to the ISO Tariff as provided in Section 3.5.1, the ISO will consider the impact on Metered Subsystems and the principles reached in this Agreement, including but not limited to:
  - 3.5.2.1** **Cost Causation:** The intent of the Parties is that ISO charges will be charged to the Scheduling Coordinator for the MSS Operator, based on the principle of cost causation, with due regard for historic considerations, timing and transition issues, and other relevant factors.
  - 3.5.2.2** **Load Following Capability:** NCPA desires to maintain Load following capability to match the Loads of the NCPA MSS Members, and to make economic resource decisions with the resources in NCPA's portfolio.



- 3.5.2.3** Compatibility of Market Participants: For efficient use of transmission facilities and to decrease Congestion, the ISO desires that all Market Participants operate using similar rules and Scheduling timelines.
- 3.6 Market Redesign and Technology Upgrade.** The ISO is in the process, simultaneously with the negotiations of this Agreement, of redesigning the ISO's markets ("MRTU"). To the extent possible, the components of MRTU that impact Metered Subsystems will be incorporated in this Agreement. If components of the MRTU design are not known until after the execution of this Agreement, the Parties agree to amend this Agreement in accordance with Sections 3.4 and 3.5.2.
- 3.7 Changes to Conform To FERC Orders.** Nothing in this Article III shall be interpreted to limit the ISO's right to modify the ISO Tariff or this Agreement to comply with or conform to any FERC order.

#### **ARTICLE IV INTERCONNECTION**

- 4.1 Points of Interconnection.** The Points of Interconnection are described in Schedule 1. Additional Points of Interconnection may be established only by mutual agreement of the Parties, for which consent shall not unreasonably be withheld.
- 4.2 Interconnection Operation Standards.** The ISO and NCPA shall maintain stable established operating parameters and control power and reactive flow within standards stated in Schedule 2.
- 4.3 Operation, Maintenance, and Load Serving Responsibilities.** NCPA shall operate and maintain all facilities forming any part of NCPA's System, and shall be responsible for the supply of the Energy and Ancillary Services required to reliably provide electric service to the Loads connected to NCPA's System as described in Section 3.1 within the ISO Control Area in accordance with Applicable Reliability Criteria, including WECC and NERC criteria.
- 4.4 Expansion, Retirement, and Modification of Facilities.** NCPA shall coordinate with the ISO in the planning and implementation of any expansion, retirement, or modification of those facilities forming parts of NCPA's System that are identified in Schedule 1, replacements for such facilities, and other facilities forming parts of NCPA's System that serve similar functions or that otherwise will or may significantly affect the Points of Interconnection, and shall provide sufficient advance notice to enable the ISO to conduct any necessary studies. The Parties will amend Schedule 1, as necessary, should a new Point of Interconnection be established in accordance with Section 4.1.



## **4.5 Installation of Facilities and Rights of Access**

- 4.5.1** Pursuant to Schedule 3, the Parties shall permit one another, on reasonable notice and with mutual agreement in each case, to install equipment or have installed equipment or other facilities on the property of the other Party to enable the installing Party to meet its service obligations, unless doing so would negatively impact the reliability of service provided by the owning Party. Unless otherwise agreed, all costs of installation shall be borne by the installing Party.
- 4.5.2** A Party installing equipment on the property of the other Party shall be granted, free of charge, reasonable rights of access to inspect, repair, maintain and upgrade that equipment. Access shall be provided only on prior notice and such access shall not be unreasonably withheld.
- 4.5.3** Notwithstanding any other provision in this Section 4.5, NCPA shall provide the ISO with access for inspection or audit, to any equipment or other facilities of NCPA's System listed in Schedule 1, the operation of which affects any Point of Interconnection or the ISO Controlled Grid, without prior notice during normal working hours, 8:00 a.m. to 5:00 p.m. Monday through Friday, excluding NERC defined holidays. For access for inspection or audit during times outside of normal working hours, the ISO shall provide NCPA with one (1) Business Day advance notice. A shorter advance notice time may be attained subject to mutual agreement of the Parties. An NCPA Supervisor is to be present at anytime access is granted, to any equipment or other facilities of NCPA's System, the operation of which affects any Point of Interconnection or the ISO Controlled Grid.

## **ARTICLE V OPERATIONS**

### **5.1 Outages**

- 5.1.1** NCPA shall coordinate Outages of Generating Units and transmission facilities, including the Points of Interconnection, constituting parts of NCPA's System with the owners of the transmission facilities with which NCPA's System is interconnected so that each of those owners can take those Outages into account in coordinating maintenance of its transmission facilities with the ISO.
- 5.1.2** NCPA shall schedule with the ISO on an annual basis, pursuant to Schedule 4, any Maintenance Outages of the equipment included in Schedule 1, and shall coordinate the Outage requirements of NCPA's System with the Participating TO with which NCPA's System is interconnected.
- 5.1.3** Notwithstanding anything to the contrary in this Agreement, to the extent required by any valid law, regulation or order issued by any state or federal authority having jurisdiction over NCPA or NCPA's System, which law, regulation or order applies to entities that have executed a written undertaking required by Section 5





of the ISO Tariff, NCPA shall coordinate Outages of Generating Units and transmission facilities constituting parts of NCPA's System with the ISO, pursuant to any generally applicable program established by the ISO to implement such law, regulation or order.

- 5.2 Safety and Reliability.** NCPA shall operate and maintain NCPA's System in accordance with applicable safety and reliability standards, WECC and NERC requirements, regulatory requirements, operating guidelines, and Good Utility Practice so as to avoid any material impact on the ISO Controlled Grid. Without limiting the foregoing, NCPA shall operate and maintain NCPA's System, during normal and System Emergency conditions, in compliance with NCPA's Emergency Action Plan ("EAP") and the requirements applicable to Utility Distribution Companies in ISO Operating Procedures and standards. In the event any such ISO Operating Procedure or standard is revised to modify the requirements applicable to Utility Distribution Companies, the Parties shall comply with such revision.
- 5.3 Critical Protective Systems.** NCPA will coordinate with the ISO, PG&E, and any Generators on NCPA's System to ensure that ISO Controlled Grid Critical Protective Systems, including relay systems and other systems described in Schedule 5, are installed and maintained in order to function in a coordinated and complementary fashion with protective devices installed by NCPA, PG&E, and Generators. NCPA shall notify the ISO as soon as is reasonably possible of any condition that it becomes aware of that may compromise or affect the operating safety and reliability of the ISO Controlled Grid Critical Protective Systems, including the systems described in Schedule 5.
- 5.4 Single Point of Contact.** The ISO and NCPA shall each provide a single point of contact on a 24-hour, 7-day basis for the exchange of operational procedures and information. In the case that NCPA is also a Participating TO, there may be only one single point of contact required and, in the reasonable discretion of the ISO, duplicative reporting requirements and functions may be waived. The initial points of contact are set forth in Schedule 6. A Party must update the information in Schedule 6 as the information changes. Changes to Schedule 6 shall not constitute an amendment to this Agreement.
- 5.5 Transmission Losses, Outages, and Congestion.** NCPA shall be responsible for transmission losses within any NCPA MSS Member's Service Area and to any Points of Interconnection. In addition, NCPA shall be responsible for transmission line Outages and transmission Congestion within any NCPA MSS Member's Service Area. This Section 5.5 does not affect Congestion on the ISO Controlled Grid, which shall be managed in accordance with the ISO Tariff.

## ARTICLE VI INFORMATION SHARING

- 6.1 Forecasts.** NCPA shall provide to the ISO annually its ten-year forecasts of Demand growth, internal Generation, and expansions of or replacements for those transmission facilities that are part of NCPA's System identified in Schedule 1 and other transmission facilities that are part of NCPA's System that serve similar functions or that otherwise will or may significantly affect any Point of Interconnection. Such forecast shall be provided on the date that Utility Distribution Companies are required to provide similar forecasts in accordance with the ISO Tariff, which is currently October 15. The ISO shall notify NCPA of any changes in this date. Peak Demand forecasts for NCPA MSS Members shall be submitted weekly by NCPA's Scheduling Coordinator and monthly in accordance with the ISO Demand Forecasting Protocol, or biannually as part of the ISO's summer and winter assessment process, as agreed by the Parties.
- 6.2 System Surveys and Inspections.** NCPA and the ISO shall cooperate to perform system surveys and inspections of facilities at or near the Points of Interconnection that may significantly affect the facilities of the other Party.
- 6.3 Maintenance Schedules.** NCPA shall provide the ISO on an annual basis with a schedule of planned maintenance of those generation and transmission facilities identified in Schedule 1, and other transmission facilities serving a similar function or which otherwise would significantly affect the ISO Control Area in accordance with Schedule 4. NCPA and the ISO shall also maintain records of the Maintenance Outages scheduled by NCPA on such facilities and their actual duration.
- 6.4 Reliability Information.** NCPA and the ISO shall each have the obligation to inform the other Party, as promptly as possible, of any circumstance of which it becomes aware (including, but not limited to, abnormal temperatures, storms, floods, earthquakes, and equipment depletions and malfunctions and deviations from Registered Data and operating characteristics) that is reasonably likely to threaten the reliability of the ISO Controlled Grid or the integrity of NCPA's System respectively. NCPA and the ISO each shall also inform the other Party as promptly as possible of any incident of which it becomes aware (including, but not limited to, equipment outages, over-loads or alarms) which, in the case of NCPA, is reasonably likely to threaten the reliability of the ISO Controlled Grid, or, in the case of the ISO, is reasonably likely to adversely affect NCPA's System. Such information shall be provided in a form and content which is reasonable in all the circumstances, sufficient to provide timely warning to the other Party of the threat and, in the case of the ISO, not unduly discriminatory with respect to the ISO's provision of similar information to other entities.
- 6.5 Major Outage Reports.** NCPA shall promptly provide such information as the ISO may reasonably request concerning NCPA's operation of NCPA's System to enable the ISO to meet its responsibility under the ISO Tariff to conduct reviews



and prepare reports following major Outages. Where appropriate, the ISO will provide appropriate assurances that the confidentiality of commercially sensitive information shall be protected. The ISO shall have no responsibility to prepare reports on Outages that affect customers on NCPA's System, unless the Outage also affects customers connected to the system of another entity within the ISO Control Area. NCPA shall be solely responsible for the preparation of any reports required by any governmental entity or the WECC with respect to any Outage that affects solely customers on NCPA's System.

## **6.6 Annual Reviews and Reports**

- 6.6.1** The ISO shall make available to NCPA any public annual reviews or reports regarding performance standards, measurements or incentives relating to the ISO Controlled Grid that the ISO makes available to MSS Operators and Participating TOs.
- 6.6.2** NCPA shall make available to the ISO any public annual reviews or reports regarding performance standards, measurements or incentives relating to NCPA's System that may affect the ISO Control Area.
- 6.6.3** The ISO and NCPA shall jointly develop any necessary forms and procedures for collection, study, treatment, and transmittal of system data, information, reports and forecasts.
- 6.7** NCPA shall install and maintain direct telemetry links to the ISO's EMS system to provide real-time data to the ISO, including but not limited to Generation output, line and transformer flows at the NCPA Points of Interconnection, and bus voltages at the NCPA Points of Interconnection and at each Generating Unit, subject to any exemption available in accordance with the ISO Tariff. Additional data points to be transmitted to the ISO EMS system will be mutually agreed by the ISO and NCPA.

## **ARTICLE VII EMERGENCY OPERATIONS**

### **7.1 In General.**

Except with respect to Sections 7.4.3, 7.4.4, 7.5.1, and 7.5.2 and provisions regarding NCPA's UFLS program, or unless NCPA is short of resources to meet its forecasted Demand, as determined in accordance with Section 4.5.3 of the ISO Tariff, the terms of this Article VII shall only apply during a System Emergency that is not a result of a deficiency of resources to serve Loads in the ISO Control Area but instead occurs due to operating contingencies, which may include but not be limited to forced loss of resources and/or transmission components or may otherwise be caused by an Uncontrollable Force, as further

described in Attachment B to the NCPA EAP. NCPA shall have an "Emergency Action Plan" ("EAP") approved by the ISO and on file with the ISO, which EAP shall be attached to Schedule 11. The EAP shall include the operational steps NCPA on behalf of the NCPAB Members shall take during System Emergencies, when the ISO implements its System Emergency-related Operating Procedures.

Under the direction of the ISO, NCPA shall follow all instructions as they pertain to the ISO's System Emergency-related Operating Procedures, including actions to be taken by NCPA with respect to Generation, Ancillary Services, and the handling of Load reductions as specified in the EAP. NCPA shall participate in all System Emergency operations-related communication between the ISO and other MSSs and UDCs within the ISO Control Area, which may include meetings, conference calls, hotlines, and/or e-mails.

NCPA shall provide all necessary Load and Generation data associated with the ISO's System Emergency-related Operating Procedures, including Generation supplied, Load shed, and reserves made available during the time of an ISO declared System Emergency.

In the event a System Emergency occurs or the ISO determines that a System Emergency is threatened or imminent, NCPA shall, in accordance with Good Utility Practice and the NCPA EAP: (a) comply with all directions from the ISO concerning the management and alleviation of a threatened or actual System Emergency, which may include shutting down or starting a Generating Unit, altering the scheduled delivery of Energy or Ancillary Services to or from, as well as within, the ISO Control Area, and/or disconnecting NCPA Members' Load and (b) comply with all other procedures concerning System Emergencies set out in the NCPA EAP, ISO Protocols, and ISO Operating Procedures, in accordance with the applicable provisions of this Agreement. Without limiting the generality of the foregoing:

- 7.1.1** When requested by the ISO during a System Emergency, NCPA shall operate all of the Generating Units listed in Schedule 14 to supply the ISO with generating capacity and/or Energy that can be made available by those Generating Units in order to make available as much generating capacity and/or Energy as possible to the ISO during the term of any System Emergency, consistent with: (a) maintaining the adequate supply of Energy to NCPA MSS Member Loads, other than in accordance with Section 7.4 of this Agreement; and (b) due consideration for the provisions of Section 3.1 and particular obligations of NCPA identified in the EAP attached to Schedule 11 or in the limitations specified in Schedule 14, provided that NCPA shall provide the ISO with advance notice of any changes to the NCPA EAP or limitations in Schedule 14 that NCPA's obligations impose on the operation of the Generating Units of NCPA's System, and any changes agreed to by the ISO shall be amendments to this Agreement. For that purpose, NCPA shall provide the ISO any update to the NCPA EAP and any change in Schedule 14 with regard to any limitations on the operation of the Generating



Units of NCPA's System. NCPA shall provide the ISO updates regarding the status of the limitations in Schedule 14 promptly whenever it becomes aware of factors that affect such limitations, provided that updates shall be provided at least quarterly and no updates may be provided later than the deadline for the submission by other Generators of changes in limitations on the operation of Generating Units, which is currently the deadline for the submission of final Hour-Ahead Schedules, except when a change is due to a Forced Outage. In making as much generating capacity and/or Energy available that can be made available by its Generating Units to the ISO as possible for use in System Emergency conditions, subject to the foregoing, NCPA shall:

- 7.1.1.1** Schedule, reschedule and operate to the maximum extent possible, the Generating Units and other sources of power of NCPA's System within and without the ISO's Control Area to maximize the amount of generating capacity and/or Energy available that can be made available by those Generating Units and other resources to the ISO; and
- 7.1.1.2** Reschedule outages of equipment and facilities, including Generating Units and any facilities which may impact the operation of Generating Units, to maximize the amount of generating capacity and/or Energy available that can be made available by those Generating Units to the ISO.
- 7.1.2** In the event that the ISO issues a Dispatch instruction that contravenes the NCPA EAP attached to Schedule 11 or any limitation set forth in Schedule 14 duly communicated in accordance with Section 7.1.1, NCPA or its Scheduling Coordinator shall not be required to follow that instruction, although it may consent to do so in a particular case (without prejudice to NCPA's right to direct its Scheduling Coordinator to decline any such instructions thereafter). If NCPA or its Scheduling Coordinator chooses not to follow such an instruction, it shall notify the ISO as soon as possible that it will not follow the Dispatch instruction due to the previously communicated limitation.
- 7.1.3** NCPA's Scheduling Coordinator shall receive compensation for generating capacity and/or Energy supplied in response to System Emergency Dispatch instructions issued by the ISO in accordance with the ISO Tariff.
- 7.1.4** During a System Emergency, the ISO and NCPA shall communicate through their respective control centers and in accordance with procedures established in this Agreement and the ISO Tariff.
- 7.1.5** Notwithstanding anything to the contrary in Articles V, VII, VIII, IX, or X of this Agreement or any ISO Tariff provision, NCPA or NCPA Members shall not be expected or required to curtail their Loads or offer to the ISO generating capacity or Energy from their Generating Units in a System Emergency that is due to the failure of other Load serving entities to provide resources adequate to serve Load

and maintain Operating Reserves or maintain an Approved Credit Rating in accordance with the ISO Tariff.

**7.1.5.1** Nothing in this Section 7.1.5 or this Agreement is intended to affect NCPA or NCPA Members obligation to comply with any market mitigation requirement, including any must-offer requirement, that the FERC may impose.

**7.2 Notice.** When a System Emergency occurs, the ISO shall notify NCPA's control center as part of the process by which it notifies all Utility Distribution Companies and MSS Operators of System Emergency conditions. Details of the notification process are set forth in Schedule 7.

**7.3 Records.** NCPA and the ISO shall maintain all appropriate records with respect to operations during a System Emergency in accordance with the ISO Tariff.

#### **7.4 Load Shedding**

**7.4.1 Disconnection of Load.** NCPA, on behalf of the NCPA MSS Members, shall implement and have at all times operational an automatic Under Frequency Load Shedding (UFLS) program described in Schedule 8 and any under-voltage relay protection program that may be described in Schedule 9. When called upon to do so by the ISO in accordance with Section 7.4.2 to avert, manage, or alleviate a System Emergency, NCPA, on behalf of the NCPA MSS Members, shall implement the manual Load Shedding program described in Schedule 10. The ISO shall notify NCPA when conditions exist that would require NCPA to implement the Load curtailment and Interruptible Load programs described in Schedules 10, 10A, and 10B. Subject to the provisions of Sections 7.1.2 and 7.4.2, if the ISO determines that Load curtailment is required to manage a System Emergency, the ISO shall determine the amount and location, if applicable, of Load to be reduced and, to the extent practicable, shall allocate a portion of the required Demand reduction to NCPA and each UDC and MSS Operator based on the ratio of its Demand at the time of the ISO Control Area annual peak Demand for the previous year to total ISO Control Area annual peak Demand for the previous year, taking into account system considerations and NCPA's curtailment rights. The ISO shall consult with NCPA, together with other Market Participants, in the ISO's annual development of a prioritization schedule for the Load Shedding program in accordance with Section 2.3.2.6 of the ISO Tariff.

**7.4.2 Manual Load Shedding Priorities.** Section 4.5.3 of the ISO Tariff provides that the ISO will determine each UDC or MSS that has insufficient resources to meet its forecasted Demand in accordance with the ISO forecast. If Load Shedding is required solely due to insufficient resources to meet Load and/or inability to meet Operating Reserve obligations (as defined by WECC or its successor and implemented by the ISO), as determined in accordance with Section 4.5.3 of the

ISO Tariff, and only if NCPA, on behalf of the MSS Members, is short of resources to meet its forecasted Demand and exports, as determined in accordance with Section 4.5.3 of the ISO Tariff, will NCPA, on behalf of the MSS Members, be required to shed Load, as directed by the ISO. NCPA shall provide the ISO with detailed real time information, in graphical or tabular format for those contracts and resources that do not have direct telemetry, demonstrating its full resource sufficiency during any time that the ISO interrupted firm Load within the ISO Control Area or during which time an ISO direction to interrupt firm Load was in force, like other MSS Operators and UDCs seeking similar exclusion from firm Load Shedding obligations, and NCPA and its Scheduling Coordinator shall be subject to the provisions of Section 4.5.3 of the ISO Tariff for any failure to make such demonstration.

**7.4.3 Load Restoration.** Load shed in accordance with Section 7.4.1 and 7.4.2 of this Agreement shall be restored pursuant to Schedule 12.

**7.4.4** The ISO shall use reasonable efforts to coordinate NCPA's Under Frequency Load Shedding program with the Under Frequency Load Shedding programs of other MSS Operators and Utility Distribution Companies, and the implementation of all such other programs, so that no one entity bears a disproportionate share of Load Shedding in the ISO Control Area. NCPA warrants that its Under Frequency Load Shedding program does and will continue to fully adhere to the applicable WECC plans and requirements governing such programs, in accordance with Schedule 8.

**7.4.5** To the extent NCPA reduces NCPA's System Load in response to a System Emergency, it shall exercise its best efforts to maintain the same level of Generation and imports as was scheduled prior to the Load reduction in order to provide the ISO with Energy, subject to the provisions of Section 7.1.2. NCPA's Scheduling Coordinator shall receive compensation for any Energy or Ancillary Services made available to the ISO as a result of such Load Shedding in accordance with the ISO Tariff and ISO Operating Procedures.

## **7.5 Electrical Emergency Plan**

**7.5.1** NCPA shall cooperate with the ISO's implementation of the Electrical Emergency Plan ("EEP") developed by the ISO in accordance with Section 2.3.2.4 of the ISO Tariff. NCPA shall implement the NCPA EAP attached to Schedule 11 of this Agreement and filed with FERC for informational purposes, and the ISO shall cooperate with NCPA's implementation of the EAP.

**7.5.2** NCPA shall notify the NCPA MSS Members pursuant to NCPA's EAP of any voluntary Load curtailments of which the ISO notifies NCPA pursuant to the EEP.

**7.5.3** When the ISO allocates an amount of Load curtailment to NCPA pursuant to the EEP to manage a System Emergency, NCPA shall notify the NCPA MSS

Members, and the NCPA MSS Members shall effectuate the required Load reductions.

## **ARTICLE VIII LOCAL AND REGIONAL RELIABILITY**

### **8.1 Reliability Within NCPA's System**

**8.1.1** NCPA shall be solely responsible for maintaining the reliability of electric service to customers in NCPA's System in accordance with Applicable Reliability Criteria, WECC and NERC requirements, regulatory requirements, and Good Utility Practice, subject to the responsibilities of the ISO as the operator of the Control Area in which NCPA's System is located.

**8.1.2** NCPA shall be responsible for any reliability Generation, Voltage Support, and Black Start service requirements within NCPA's System. At the Points of Interconnection, Voltage Support shall be managed in accordance with the Replacement IA and the ISO Tariff.

**8.1.3** If and to the extent the WECC criteria change or NCPA does not maintain sufficient Generation to meet the reliability criteria in Schedule 16, as may be amended, as applied to NCPA's System and thus avoid adverse impacts on the ISO Controlled Grid, then NCPA's Scheduling Coordinator may be assessed costs incurred by the ISO to support the reliability of NCPA's System. The ISO will notify NCPA that the reliability criteria have not been met and the Parties shall negotiate in good faith over necessary modifications and, if they cannot reach agreement, submit the dispute to dispute resolution in accordance with Article XV of this Agreement.

**8.2 Control Area Reliability.** For the costs specified in this Article VIII, NCPA, through its Scheduling Coordinator, shall be responsible for supplying or bearing its proportionate share of the costs of generating resources required for the reliability of electric service to Loads in the ISO Control Area, except for Reliability Must-Run ("RMR") Generation costs on the ISO Controlled Grid, where such costs are the responsibility of the Participating TO where the RMR unit is interconnected, provided further that NCPA is not a Participating TO. NCPA, through its Scheduling Coordinator, may meet such obligation from resources it owns or with respect to which it has contractual entitlements to the Energy and Ancillary Services or it may purchase those products through the ISO's markets in accordance with the terms of the ISO Tariff.

**8.2.1** NCPA's reliability Generation is currently identified in Schedule 14. In addition, some of NCPA's Generation provides RMR Generation services to PG&E and is subject to the terms of the ISO Tariff applicable to Reliability Must-Run Generation.



- 8.2.2** Nothing in this Agreement shall obligate NCPA to make any Generating Units available as Reliability Must-Run Generation other than those identified in Schedule 14 as RMR Units, unless NCPA notifies the ISO that it desires to participate in the RMR Unit designation process. To the extent NCPA does not notify the ISO that it desires to participate in the RMR Unit designation process, the ISO agrees not to designate any other NCPA Generating Units as RMR Units provided NCPA agrees that, in circumstances affecting local reliability of the ISO Controlled Grid that would otherwise be mitigated by RMR Units, any Generation not being used to serve NCPA Members will be made available to the ISO, subject to Article VII of this Agreement.
- 8.3 Voltage Support.** Except as otherwise agreed by the Parties, NCPA shall maintain the voltage on NCPA's System so that reactive flows at the Points of Interconnection are within the power factor band of 0.97 lag to 0.99 lead. NCPA shall not be compensated for maintaining the power factor at the levels required by the ISO within this bandwidth. If NCPA fails to maintain the power factor at the levels specified by the ISO, NCPA's Scheduling Coordinator shall bear a portion of the ISO's Voltage Support costs in accordance with Section 13.6.
- 8.4 Black Start.** NCPA shall either provide its own share of ISO Control Area Black Start capability or, through its Scheduling Coordinator, bear a portion of the ISO's Black Start costs in accordance with Section 13.7.
- 8.5 Ancillary Services.** NCPA's responsibility for the ISO Control Area requirements of Ancillary Services shall be determined in accordance with the ISO Tariff. If NCPA's Scheduling Coordinator schedules sufficient self-provided capacity complying with the applicable requirements of the ISO Tariff, which capacity is committed to the various required Ancillary Services, and maintains the Ancillary Service capacity as available to the ISO for that purpose, NCPA's Scheduling Coordinator shall not be required to purchase capacity in the ISO's Ancillary Service markets. To the extent NCPA's Scheduling Coordinator does not schedule sufficient capacity for this purpose, NCPA may, through its Scheduling Coordinator, purchase the required capacity in the ISO's Ancillary Service markets. To the extent NCPA's Scheduling Coordinator does not maintain the availability of capacity committed to the ISO for Ancillary Services for that purpose, the Scheduling Coordinator shall be responsible for the applicable charges under the ISO Tariff.
- 8.6 Imbalance Energy.** To the extent that sufficient Energy for the purpose of serving Load in the Service Areas of NCPA Members for which NCPA serves as MSS Aggregator or Scheduling Coordinator and exports from the Service Areas of those NCPA Members, including losses, is not reflected in Schedules submitted by NCPA's Scheduling Coordinator and delivered in real time, NCPA shall be deemed (through its Scheduling Coordinator) to have purchased or sold Imbalance Energy in the ISO's Imbalance Energy market. The ISO will settle with NCPA's Scheduling Coordinator with regard to Imbalance Energy in

accordance with the ISO Tariff. However, when NCPA is following its MSS Load and exports from the MSS with NCPA's System resources and imports into the MSS, to the extent that the net Imbalance Energy for all of NCPA's MSS Loads and exports from the MSS, and resources and imports into the MSS, is within NCPA's portfolio deviation band, as specified in Section 13.12, NCPA's Scheduling Coordinator will not be subject to costs or penalties other than the cost of the Imbalance Energy itself. To the extent that NCPA's Scheduling Coordinator is operating outside of its portfolio deviation band, NCPA's Scheduling Coordinator shall be subject to penalties as specified in Section 13.12. In following Load, NCPA's Scheduling Coordinator may utilize any resource available to it regardless of whether, or at what level, that resource is reflected in Schedules submitted by NCPA's Scheduling Coordinator, except with respect to any portion of the capacity of a resource for which NCPA's Scheduling Coordinator has submitted an Ancillary Services capacity bid to the ISO for that resource or to the extent the ISO has issued a System Emergency operating order consistent with Section 7.1.1.

## **ARTICLE IX ACCESS**

### **9.1 Existing Contracts and Encumbrances and Access to the ISO Controlled Grid**

- 9.1.1** This Agreement is intended to operate in conjunction with the Settlement Agreement. Nothing in this Agreement shall be construed or interpreted in any manner that would interfere with the terms and conditions of any Existing Contract or Encumbrance or relieve the ISO of its obligation to honor such Existing Contracts and Encumbrances, provided that NCPA or its Scheduling Coordinator shall schedule its use of Existing Contracts and Encumbrances as specified in Section 11.3 of this Agreement. The Existing Contracts and Encumbrances are listed on Schedule 13.
- 9.1.2** NCPA shall have open and non-discriminatory access to the ISO Controlled Grid for the scheduling of transactions that do not utilize Existing Contracts and Encumbrances for it or the NCPA Members in accordance with the ISO Tariff and for other transmission services the ISO may provide in the future under the ISO Tariff.
- 9.1.3** NCPA may use the ISO Controlled Grid in accordance with the ISO Tariff to buy and sell electric products in the ISO's markets and in bilateral transactions with other Market Participants.
- 9.1.4** NCPA shall afford open and non-discriminatory access to the transmission facilities included in NCPA's System to any entity qualified to obtain an order under Section 211 of the Energy Policy Act of 1992 that affords such access to the transmission facilities that such entity owns or controls.



## 9.2 Access to ISO Markets

**9.2.1 Sales of Energy and Ancillary Services.** Energy and Ancillary Services produced by Generating Units and Loads on NCPA's System may be sold in the ISO's markets on the terms applicable under the ISO Tariff to Participating Generators and Participating Loads, respectively, as modified by this Agreement. If NCPA's Scheduling Coordinator submits a bid for Energy or Ancillary Services from a Generating Unit or Load of NCPA's System, NCPA warrants to the ISO that it has the capability to provide that service in accordance with the ISO Tariff and that it shall comply with ISO Dispatch instructions for the provision of the service in accordance with this Agreement. If NCPA's Scheduling Coordinator submits a bid for Energy or Ancillary Services from a Generating Unit or Load within a Service Area of NCPA's System, any Energy delivered from that Generating Unit or Load shall be added to the calculation of NCPA's net metered Demand and exports from NCPA's System for purposes of determining deliveries to NCPA's System in assessing charges pursuant to Article XIII.

**9.2.2 Certification.** NCPA shall not use a Scheduling Coordinator to submit a bid for the provision of an Ancillary Service or submit a Schedule for the self provision of an Ancillary Service unless the Scheduling Coordinator serving NCPA is in possession of a current certificate pursuant to Sections 2.5.6 and 2.5.24 of the ISO Tariff.

**9.2.3 Supplemental Energy and Ancillary Service Bids.** Bids in the ISO's Supplemental Energy and Ancillary Service markets may only be submitted by NCPA's Scheduling Coordinator.

**9.2.4 Black Start and Voltage Support.** NCPA or its Scheduling Coordinator shall be entitled to bid the resources on NCPA's System in any open solicitation held by the ISO for Black Start or Voltage Support services, provided that the supply of any service by NCPA shall not impair its ability to provide the service it is required by Article VIII of this Agreement to provide for NCPA's System, and, if the services are sold to the ISO, NCPA or its Scheduling Coordinator shall provide such services in accordance with the ISO Tariff.

## ARTICLE X GENERATING UNITS AND PARTICIPATING LOADS

**10.1 Identification of Resources.** NCPA has identified in Schedule 14 the individual Generating Units and Participating Loads that it owns, operates or to which it has a contractual entitlement.

**10.1.1 Technical Characteristics.** NCPA has provided to the ISO in Schedule 14 the required information regarding the capacity and operating characteristics of each of the Generating Units and Participating Loads listed in that schedule. The ISO

may verify, inspect, and test the capacity and operating characteristics provided in Schedule 14, and any changes thereto made pursuant to Section 10.1.2 of this Agreement, in accordance with Section 2.5.25 of the ISO Tariff.

- 10.1.2 Notification of Changes.** NCPA shall notify the ISO sixty (60) days prior to any change to the information provided in Schedule 14, provided that such notice shall not be required for changes to parameters of operating limitations set forth in Schedule 14, which shall be made in accordance with the ISO's Operating Procedures. The Parties shall amend Schedule 14, as applicable, to reflect that change. Subject to such notification, and verification, inspection, and testing in accordance with Section 10.1.1, but without waiting for the execution and effectiveness of an amended Schedule 14, the Parties shall implement any new information for a Generating Unit or Participating Load identified in Schedule 14 upon the effective date for the next scheduled update to the ISO's Master File.
- 10.1.3** Nothing in this section shall preclude NCPA from informing the ISO of changes in limitations on the operation of a Generating Unit, as provided in Section 7.1 of this Agreement, or to comply with environmental laws and regulations, provided that NCPA provides the ISO with advance notice of any changes in such limitations.

## **10.2 Generating Unit Operation**

- 10.2.1** NCPA shall install and maintain direct telemetry links to the ISO's EMS system for each NCPA Generating Unit that enable the ISO to view the status, voltage, and output of the Generating Unit and ISO certified meters that transmit data automatically to the ISO's meter data acquisition system. NCPA shall calculate and specify to the ISO any distribution loss factor applicable to the Generating Units of NCPA's System.
- 10.2.2** If NCPA, through its Scheduling Coordinator, chooses to supply Regulation or self-provide Regulation from a Generating Unit, it must provide the ISO with control over the Generating Unit providing Regulation and place the Generating Unit on Automatic Generation Control ("AGC") responsive to the ISO's Regulation signal. Regulation service shall be provided in accordance with the ISO Tariff. NCPA or its Scheduling Coordinator may adjust output of the Generating Units of NCPA's System, in response to NCPA's Load following needs, provided that, if NCPA is providing Regulation to the ISO from any Generating Unit, it may not adjust the output of that Generating Unit unless the integrity of the ISO's Regulation signal, and the continuous responsiveness of such Generating Unit, via AGC, to the ISO's Regulation signal, is not compromised. If the ISO determines that the integrity of the ISO's Regulation signal or the continuous responsiveness to the ISO's Regulation signal is compromised, NCPA's Generating Unit shall be deemed not to have provided the Regulation, and NCPA shall be subject to the provisions of the ISO Tariff applicable to failure to provide Regulation. To the extent that NCPA chooses not to provide Regulation from an NCPA Generating Unit, the ISO shall not control



the Generating Unit via a direct link between the ISO and the Generating Unit without NCPA's consent.

**10.3 ISO Authority to Dispatch NCPA Resources.** The ISO's authority to Dispatch any portion of the capacity of any Generating Unit of NCPA, other than in accordance with a bid submitted to the ISO by NCPA's Scheduling Coordinator, is set forth in and subject to Section 7.1 of this Agreement.

#### **10.4 WECC Requirements Applicable to Participating Generators**

**10.4.1 Reliability Criteria.** NCPA shall comply with the requirements of Section 5.4 of the ISO Tariff applicable to Participating Generators.

**10.4.2 Payment of WECC Sanctions.** NCPA shall be responsible for payment directly to the WECC of any monetary sanction assessed against NCPA by the WECC, as provided in Section 5.4.3 of the ISO Tariff.

### **ARTICLE XI SCHEDULING**

**11.1 Scheduling Coordinator.** All Schedules submitted on behalf of NCPA for the delivery of Energy and Ancillary Services to Loads in NCPA's System and for exports from NCPA's System shall be submitted by a Scheduling Coordinator certified in accordance with the applicable provisions of the ISO Tariff that has entered into a Scheduling Coordinator Agreement with the ISO that is currently in effect. The Scheduling Coordinator may be NCPA itself or a Scheduling Coordinator designated by NCPA.

**11.2 Self-Provided Energy and Ancillary Services.** NCPA may self-provide all or any portion of its obligation for Energy and Ancillary Services. Whether or not NCPA engages in such self-provision, NCPA's Scheduling Coordinator shall include the gross output, less auxiliary load, of each Generating Unit and import from which NCPA meets that obligation and the gross Load served on NCPA's System and gross exports from NCPA's System in Schedules submitted to the ISO. If the ISO amends the ISO Tariff to relieve Scheduling Coordinators of the obligation to schedule gross Generation, imports, Loads, and exports, and the amendment would have applied to NCPA in the absence of this Agreement, the Parties shall negotiate an amendment to this Agreement to conform the obligations of this section to the modified procedures.

**11.3 Scheduling Timelines.** Except as otherwise specified in this Section 11.3, NCPA's Scheduling Coordinator shall submit all Schedules, including (i) Schedules for the use of its Existing Contracts and Encumbrances, and transmission ownership rights comprising NCPA's System, (ii) Schedules for the use of the ISO Controlled Grid as a new firm use, and (iii) Schedules for the self-



provision of Energy and Ancillary Services, within the timelines established by the ISO Tariff. NCPA's Scheduling Coordinator shall not be precluded from making real-time changes if such scheduling capability is afforded NCPA or NCPA Members under Existing Contracts, Encumbrances, or the Settlement Agreement, or the Interim COTP Operations Agreement, dated October 28, 2004, as may be made effective by FERC. If NCPA elects to follow its Load as an MSS Aggregator in accordance with Section 8.6, NCPA's Scheduling Coordinator shall have the ability to make changes in its Schedules in accordance with the timelines set forth in Schedule 13 if such scheduling capability is for use of transmission ownership rights in non-ISO Controlled Grid facilities located in the ISO Control Area at a Control Area intertie, provided that this scheduling capability shall be subject to reconsideration in conjunction with the implementation of MRTU in accordance with Section 3.6. Schedule 13 includes any Scheduling timelines required for Existing Contracts and Encumbrances, and transmission ownership rights comprising NCPA's System.

## ARTICLE XII METERING

- 12.1** NCPA shall ensure installation of ISO-certified revenue quality meters and associated equipment at (a) the Points of Interconnection and, (b) for each Generating Unit listed in Schedule 14, at each bus to which one or more Generating Units is connected, provided that the Demand of any Load at that bus, other than a Generating Unit auxiliary load, is separately metered.
- 12.2** The provisions of the ISO Tariff applicable to ISO Metered Entities shall apply to NCPA, subject to the particular rights and obligations of the Parties with respect to metering set forth in Schedule 15, including access to and testing of NCPA's meters.
- 12.3** The calculation of NCPA's Settlement Quality Meter Data shall be in accordance with Schedule 15.

## ARTICLE XIII CHARGES

- 13.1 Charges Generally.** Except as may be provided otherwise in the provisions of this Article XIII, NCPA's Scheduling Coordinator shall be responsible for charges incurred in accordance with the ISO Tariff, provided that nothing in this Agreement shall prohibit NCPA from challenging the allocation of any new charge under the ISO Tariff to NCPA on the ground that the proposed charge is not appropriately assessed against a MSS Operator, or on any other ground. Further, except as specifically provided in this Agreement, NCPA shall only be



responsible for charges allocated by the ISO Tariff to Participating TOs if it becomes a Participating TO, as permitted by Section 3.3.7.

- 13.2 Transmission Losses.** NCPA's Scheduling Coordinator shall be responsible for transmission losses, in accordance with the ISO Tariff, only for the delivery of Energy to NCPA's System or from NCPA's System, provided NCPA fulfills its obligation to provide for transmission losses on the transmission facilities forming part of NCPA's System in accordance with Section 5.5 of this Agreement. A Generation Meter Multiplier ("GMM") shall be assigned to the Generating Units and a Transmission Meter Multiplier ("TMM") shall be assigned to Control Area intertie points that are part of ~~an~~ NCPA's System at the Points of Interconnection for use of the ISO Controlled Grid. That GMM and TMM shall be 1.0 for all Generating Units and Control Area intertie points that are part of ~~within~~ NCPA's System that are located at or behind a Point of Interconnection, to the extent that the Load at the Point of Interconnection for that portion of NCPA's System exceeds the amount of Generation produced by the Generating Units, plus the amount of any imports from any Control Area intertie, connected to that portion of NCPA's System, ~~except that a GMM shall be calculated by the ISO for Energy produced pursuant to a Dispatch instruction from the ISO.~~
- 13.3 Congestion Costs.** NCPA's Scheduling Coordinator shall be responsible for Usage Charges and Grid Operations Charges, and any successor charges through which the ISO collects Congestion costs from Scheduling Coordinators, in accordance with the ISO Tariff only with respect to NCPA's Scheduling Coordinator's delivery of Energy and Ancillary Services, utilizing the ISO Controlled Grid, to NCPA's System or from NCPA's System, including NCPA's Scheduling Coordinator's delivery of Energy and Ancillary Services from Generating Units on NCPA's System to NCPA's System Loads other than Loads within the same Service Area to which the Generating Units are connected, provided that NCPA fulfills its obligation to manage Congestion on NCPA's System and at the Points of Interconnection at its own cost in accordance with Section 5.5 of this Agreement.
- 13.4 Unaccounted-For Energy Costs.** NCPA's System shall be treated as a Utility Distribution Company Service Area for purposes of allocating responsibility for Unaccounted-for Energy costs in accordance with the ISO Tariff.
- 13.5 Reliability Generation.** NCPA shall be responsible for the costs of maintaining the reliability of transmission facilities in NCPA's System, including costs of Generating Units operated by or on behalf of NCPA for that purpose. If and to the extent NCPA does not maintain sufficient Generation to meet the reliability criteria in Schedule 16 as applied to NCPA's System and thus avoid material adverse impacts on the ISO Controlled Grid, then NCPA may be assessed costs incurred by the ISO to support the reliability of NCPA's System.
- 13.6 Voltage Support Costs.** If and to the extent NCPA does not satisfy the Voltage Support obligations set forth in accordance with Section 8.3 of this Agreement,



NCPA's Scheduling Coordinator shall bear a proportionate share of the ISO's Voltage Support cost in accordance with the ISO Tariff.

- 13.7 Black Start Costs.** If and to the extent NCPA does not provide its own Black Start capability in accordance with Section 8.4 of this Agreement, NCPA's Scheduling Coordinator shall bear a proportionate share of the ISO's Black Start cost in accordance with the ISO Tariff.
- 13.8 Neutrality Costs.** NCPA's Scheduling Coordinator's obligation to pay neutrality adjustments and Existing Contracts cash neutrality charges (or collect refunds) shall be based on NCPA's net metered Demand and exports from the ISO Control Area.
- 13.9 Summer Reliability Costs.** NCPA, through its Scheduling Coordinator, shall have the option to avoid any share of the ISO's costs for any summer Demand reduction program or for any summer reliability Generation procurement program pursuant to ISO Tariff Section 2.3.5.1.8. In order to avoid such costs, NCPA shall secure capacity reserves on an annual basis at least equal to fifteen percent (15%) of the peak Demand responsibility of NCPAB members, and provide documentation to the ISO of the resources proposed to meet that peak Demand responsibility plus such capacity reserves. Such capacity reserves may include on-demand rights to Energy, peaking resources, and NCPAB members' Demand reduction programs. For the purposes of this Section 13.9, the peak Demand responsibility shall be equal to the forecasted annual coincident peak Demand Forecast of NCPAB plus any firm power sales by NCPAB plus any NCPAB on-demand obligations to third parties, less interruptible Loads, and less any firm power purchases. Firm power for the purposes of this Section 13.9 shall be Energy that is intended to be available to the purchaser without being subject to interruption or curtailment by the supplier except for Uncontrollable Forces or emergency, and for which the supplier carries WECC-required operating reserves. To the extent that NCPA demonstrates its provision of capacity reserves in accordance with this Section 13.9, NCPAB members' Scheduling Coordinator shall not be obligated to bear any share of the ISO's costs for any summer Demand reduction program or for any summer reliability Generation procurement program pursuant to ISO Tariff Section 2.3.5.1.8. SVP must demonstrate its provision of the resources proposed to meet that peak Demand responsibility plus capacity reserves separately.
- 13.10 Generating Unit Minimum Load, Emissions and Start-Up Costs.** If the ISO is compensating Generating Units for Minimum Load Costs, Emissions Costs, and Start-Up Costs, and NCPA has elected to follow its Load in accordance with Section 8.6, then NCPA, which is performing as MSS Aggregator, shall elect either the option set forth in Section 13.10.1 or the option set forth in Section 13.10.2. If NCPA has not elected to follow its Load in accordance with Section 8.6, then NCPA may not elect the option set forth in Section 13.10.2.





- 13.10.1** NCPA may elect to be eligible for recovery of Minimum Load Costs and charge the ISO for the Emissions Costs and Start-Up Costs of the Generating Units serving the Load of NCPA's System. If NCPA makes such election, then the Scheduling Coordinator for NCPA as MSS Aggregator shall bear its proportionate share of the total amount of those costs incurred by the ISO in accordance with the ISO Tariff.
- 13.10.2** NCPA may elect not to be eligible for recovery of Minimum Load Costs and not to charge the ISO for the Emissions Costs and Start-Up Costs of the Generating Units serving the Load of NCPA's System. If NCPA makes such election, then the Scheduling Coordinator for NCPA as MSS Aggregator shall bear its proportionate share of the total amount of those costs incurred by the ISO based on NCPA as MSS Aggregator's Net Negative Uninstructed Deviations.
- 13.10.3** NCPA shall make the election whether to be eligible for Minimum Load Cost recovery and charge the ISO for the subject Generating Unit Emission Costs and Start-Up Costs annually by November 1 for the following calendar year.
- 13.11 Grid Management Charge Adjustment for MSS Load Following.** If the ISO is charging Grid Management Charges for uninstructed deviations (currently the Energy Transmission Services Uninstructed Deviations Charge and a portion of the Market Usage Charge), and if NCPA's Scheduling Coordinator has uninstructed deviations associated with Load following from resources listed in Schedule 14, then the ISO will net the Generation and imports into the MSS to match the Load and exports out of the MSS, and will not assess Grid Management Charges associated with uninstructed deviations for such portion of Energy that is used to match MSS Load and net exports out of the MSS. If Generation and imports into the MSS are above the amount to cover Load and exports out of the MSS, and were sold into the ISO's Imbalance Energy market, then NCPA's Scheduling Coordinator will only be charged Grid Management Charges associated with uninstructed deviations for this quantity. If Generation and imports into the MSS are below the amount to cover Load and exports out of the MSS and Imbalance Energy is purchased from the ISO, then NCPA's Scheduling Coordinator will only be charged Grid Management Charges associated with uninstructed deviations for this quantity. NCPA's Scheduling Coordinator will otherwise be assessed all components of the Grid Management Charge in accordance with the ISO Tariff.
- 13.12 Deviation Band and Penalties Calculation.** The ISO will settle with NCPA's Scheduling Coordinator with regard to Imbalance Energy, based on the applicable zonal or locational ex post prices, in accordance with the ISO Tariff. For purposes of assessing penalties to NCPA's Scheduling Coordinator associated with operating outside the portfolio deviation band described in Section 8.6, the portfolio deviation band shall be three percent (3%) of the lesser of NCPA's metered or Hour-Ahead scheduled Demand and exports from the MSS, adjusted for Forced Outages and any ISO directed firm Load Shedding, for NCPA's portfolio as a whole. Penalties for operating outside of the deviation

band will be based on a price that is the effective weighted average ex post price applicable to NCPA for the billing interval. If the metered Generation resources and imports into the MSS exceed the Demand, exports from the MSS, and Energy expected to be delivered by NCPA in response to the ISO's Dispatch instructions and/or Regulation set-point signals issued by the ISO's AGC by more than the deviation band, then the ISO will take back its payment for Imbalance Energy by assessing NCPA's Scheduling Coordinator a penalty of one hundred percent (100%) of the amount of Imbalance Energy that is outside the deviation band. If metered Generation resources and imports into the MSS are deficient in meeting Demand, exports from the MSS, and Energy expected to be delivered by NCPA in response to the ISO's Dispatch instructions and/or Regulation set-point signals issued by the ISO's AGC by more than the deviation band, then NCPA's Scheduling Coordinator shall be assessed a two hundred percent (200%) penalty for the amount of Imbalance Energy that is outside of the deviation band, in addition to the Imbalance Energy charges that may be applicable. NCPA shall not oppose the ISO's allocation of the proceeds of any deviation band penalties as an offset to the ISO's Grid Management Charge.

**13.13 Replacement Reserve Allocation.** MD02 included the elimination of Replacement Reserve by October 1, 2002. Because Replacement Reserve was not eliminated by October 1, 2002, the Parties agree to negotiate a change to the ISO's allocation of Replacement Reserve costs to NCPA, upon notice from one Party to the other, to bring that allocation into conformance with the settlement principles of Section 8.6.

**13.14 Penalties for Failure to Provide Ancillary Services Capacity.** The Parties agree that Ancillary Services should be provided from the resources that the ISO actually instructs to respond and that the resources instructed to deliver Ancillary Services are expected to provide an incremental response consistent with the standards for the Ancillary Service. However, since NCPA's Scheduling Coordinator may simultaneously be undertaking economic trades or following Loads using the same resource that the ISO has instructed to deliver Ancillary Services, the ISO will incorporate NCPA's documented Load following instructions into its evaluation of Ancillary Services compliance. Penalties for failure to provide committed Ancillary Services capacity will be assessed by the ISO in accordance with the ISO Tariff, on an individual Generating Unit basis, whenever that capacity is considered to have not been made available to the ISO. If the ISO believes that an NCPA Generating Unit did not supply the committed amount of Ancillary Services capacity or associated Energy, based on the Ancillary Services capacity reservation, any instructions issued by the ISO to NCPA or its Scheduling Coordinator to provide associated Energy, and the supporting meter data, when assessing penalties the ISO will give due consideration to operational data that NCPA or its Scheduling Coordinator may provide to demonstrate that the Generating Unit's output was being adjusted for Load-following purposes as allowed by the terms of this Agreement and within the Ancillary Services capacity not provided to the ISO. Additionally, the Parties

agree that the current equations for the settlement of real time Energy may under some circumstances result in Ancillary Services capacity penalties that are inappropriate when the Generating Unit is being used simultaneously to follow Load and provide Ancillary Services Energy.

**13.15 Operating and Maintenance Costs.** NCPA shall be responsible for all its costs incurred in connection with procuring, installing, operating, and maintaining the facilities, Generating Units, and Participating Loads of NCPA's System for the purpose of meeting its obligations under this Agreement.

**13.16 Billing and Payment.** Billing and payment will be in accordance with the ISO Tariff.

#### **ARTICLE XIV PENALTIES AND SANCTIONS**

**14.1 Penalties.** NCPA or its Scheduling Coordinator shall be subject to penalties and/or sanctions for failure to comply with any provisions of this Agreement only to the extent that (a) the penalty or sanction is set forth in the ISO Tariff and has been approved by FERC; and (b) the ISO Tariff provides for the imposition of the same penalty or sanction on a UDC, MSS Operator, Participating Generator, or Participating Load in the same circumstances. Nothing in this Agreement, with the exception of the provisions of Article XV, shall be construed as waiving the rights of NCPA to oppose or protest any penalty or sanction proposed by the ISO to the FERC or the specific imposition by the ISO of any FERC-approved penalty or sanction on NCPA.

**14.2 Corrective Measures.** If NCPA fails to meet or maintain the requirements set forth in this Agreement or in the applicable provisions of the ISO Tariff, the ISO shall be permitted to take any of the measures, contained or referenced herein or in the applicable provisions of the ISO Tariff that the ISO deems to be necessary to correct the situation.

#### **ARTICLE XV DISPUTE RESOLUTION**

**15.1 Dispute Resolution.** The Parties shall make reasonable efforts to settle all disputes arising out of or in connection with this Agreement. In the event any dispute is not settled, the Parties shall adhere to the ISO ADR Procedures set forth in Section 13 of the ISO Tariff, which is incorporated by reference, except that any reference in Section 13 of the ISO Tariff to Market Participants shall be read as a reference to NCPA and references to the ISO Tariff shall be read as references to this Agreement.

**ARTICLE XVI  
REPRESENTATIONS AND WARRANTIES**

- 16.1 Representations and Warranties.** Each Party represents and warrants that the execution, delivery and performance of this Agreement by it has been duly authorized by all necessary corporate and/or governmental actions, to the extent authorized by law.
- 16.2 Necessary Approvals.** Each Party represents that all necessary leases, approvals, licenses, permits, easements, rights of way or access to install, own and/or operate its facilities subject to this Agreement have been or will be obtained prior to the effective date of this Agreement.
- 16.3 NCPA Representation of NCPA Members.** NCPA represents and warrants that, as of the effective date of this Agreement as set forth in Section 2.1, it is authorized by all applicable NCPA Members to perform the duties and obligations set forth in this Agreement.

**ARTICLE XVII  
LIABILITY AND INDEMNIFICATION**

- 17.1 Liability and Indemnification.** The provisions of Section 14 of the ISO Tariff will apply to liability and indemnification arising under this Agreement, except that all references in Section 14 of the ISO Tariff to Market Participants shall be read as references to NCPA and references to the ISO Tariff shall be read as references to this Agreement.

**ARTICLE XVIII  
UNCONTROLLABLE FORCES**

- 18.1** Section 15 of the ISO Tariff shall be incorporated by reference into this Agreement, except that all references in Section 15 of the ISO Tariff to Market Participants shall be read as a reference to NCPA and references to the ISO Tariff shall be read as references to this Agreement.

**ARTICLE XIX  
MISCELLANEOUS**

- 19.1 Notices.** Any notice, demand or request which may be given to or made upon either Party regarding this Agreement shall be made in writing to the employee or official identified in Schedule 17 of this Agreement, and shall be deemed properly given: (a) upon delivery, if delivered in person, (b) five (5) days after deposit in the mail if sent by first class United States mail, postage prepaid, (c) upon receipt

of confirmation by return facsimile if sent by facsimile, or (d) upon delivery if delivered by prepaid commercial courier service. A Party must update the information in Schedule 17 as the information changes. Such changes shall not constitute an amendment to this Agreement.

- 19.2 Waivers.** Any waiver at any time by either Party of its rights with respect to any default under this Agreement, or with respect to any other matter arising in connection with this Agreement, shall not constitute or be deemed a waiver with respect to any subsequent default or other matter arising in connection with this Agreement. Any delay, short of the statutory period of limitations, in asserting or enforcing any right under this Agreement shall not constitute or be deemed a waiver of such right.
- 19.3 Governing Law and Forum.** This Agreement shall be deemed to be a contract made under, and for all purposes shall be governed by and construed in accordance with, the laws of the State of California, except its conflict of laws provisions. The Parties agree that any legal action or proceeding arising under or relating to this Agreement to which the ISO ADR Procedures do not apply shall be brought in one of the following forums as appropriate: any court of the State of California, any federal court of the United States of America located in the State of California, or, where subject to its jurisdiction, before the Federal Energy Regulatory Commission.
- 19.4 Merger.** This Agreement constitutes the complete and final agreement of the Parties with respect to the subject matter hereof and supersedes all prior agreements, whether written or oral, with respect to the provisions of this Agreement.
- 19.5 Counterparts.** This Agreement may be executed in one or more counterparts at different times, each of which shall be regarded as an original and all of which, taken together, shall constitute one and the same Agreement.
- 19.6 Consistency with Federal Laws and Regulations.** Nothing in this Agreement shall compel either Party to violate federal statutes or regulations, or orders lawfully promulgated thereunder. If any provision of this Agreement is inconsistent with any obligation imposed on a Party by such federal statute, regulation or order, to that extent, it shall be inapplicable to that Party. No Party shall incur any liability by failing to comply with a provision of this Agreement that is inapplicable to it by reason of being inconsistent with any such federal statutes, regulations, or orders lawfully promulgated thereunder; provided, however, that such Party shall use its best efforts to comply with this Agreement, to the extent that applicable federal laws, regulations, and orders lawfully promulgated thereunder permit it to do so.
- 19.7 Severability.** If any term, covenant, or condition of this Agreement or the application or effect of any such term, covenant, or condition is held invalid as to any person, entity, or circumstance, or is determined to be unjust, unreasonable,



unlawful, imprudent, or otherwise not in the public interest by any court or government agency of competent jurisdiction, then such term, covenant, or condition shall remain in force and effect to the maximum extent permitted by law, and all other terms, covenants, and conditions of this Agreement and their application shall not be affected thereby, but shall remain in force and effect and the Parties shall be relieved of their obligations only to the extent necessary to eliminate such regulatory or other determination unless a court or governmental agency of competent jurisdiction holds that such provisions are not separable from all other provisions of this Agreement.

**19.8 Assignments.** Either Party may assign its rights and obligations under this Agreement, with the other Party's prior written consent, in accordance with Section 17 of the ISO Tariff, which is incorporated by reference into this Agreement. Such consent shall not be unreasonably withheld.

**IN WITNESS WHEREOF**, the Parties hereto have caused this Agreement to be duly executed on behalf of each by and through their authorized representatives as of the date hereinabove written.

**CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION**

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

**NORTHERN CALIFORNIA POWER AGENCY**

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_



**SCHEDULE 1**  
**NCPA'S SYSTEM FACILITIES**  
**[Section 1.2]**

The following facilities form NCPA's System, including the Points of Interconnection.



## Points of Interconnection

Member Customer	Point of Interconnection	Voltage (kV)	2002 Normal Delivery Capability (MW)	2002 Coincident Peak Load (MW)	2002 Non – Coincident Peak Load (MW)
Alameda	Oakland Substation C and Oakland Substation J	115 (Both Points)	229	55.2	69.7
Biggs	Biggs Sub (60 kV and 12 kV)	60 and 12	29.2	3.6	3.7
Gridley	Gridley Sub	60	62	8.9	8.9
Healdsburg	Healdsburg Sub	60	30	18.0	18.0
Lodi	Industrial Sub (Lodi Line 1 and Lodi Line 2); White Slough Sub (Lodi White Slough North and Lodi White Slough South); and White Slough Stig <sup>1</sup>	60 (Both Industrial Points) 12 (Both White Slough Sub Points) 230 (White Slough Stig)	124.5	123.9	123.9
Lompoc	Lompoc Sub (Lompoc Line 1 and Lompoc Line 2)	115 (Both Points)	72.5	18.9	24.9
Palo Alto	Colorado Sub (Palo Alto Line 1, Palo Alto Line 2, and Palo Alto Line 3)	115 (All 3 Points)	379	178.9	183.5
Plumas Sierra	Quincy Sub Marble Sub	60 60	28.3	23.2	28.1
Ukiah	Babcock Sub	115	31.4	30.4	30.9
Silicon Valley Power*	Northern Receiving Station (NRS) (Newark-NRS No. 1, Newark-NRS No. 2, and Nortech-NRS); Kifer Receiving Station (Newark-Kifer and FMC-Kifer); and SVP Switching Station (SSS)	115 (All 5 NRS and Kifer Points)  230 (SSS)			
Port of Oakland	San Leandro – Oakland “J”, 10286 115-kV for Edes #1 Tap; Oakland “J” – Grant, 10244 115-kV for Edes #2 Tap; Oakland “C”	115	16.7	7.3	8.0

<sup>1</sup> Lodi Wastewater treatment plant load will be served via the Lodi White Slough Stig Interconnection with PG&E, be separately metered, and be included in the normal, coincident and non-coincident load information for Lodi.





	Maritime Tap; and Oakland Army Base Tap	115	40	6.4	6.4
		115	40	1.2	1.2



\*The Points of Interconnection listed herein for Silicon Valley Power are governed by the terms of the Silicon Valley Power MSS Agreement with the ISO with respect to the operational and other matters addressed in that agreement.

The interconnection points for all Generating Units listed on Schedule 14 also are Points of Interconnection.

#### Other System Facilities

1. Double Circuit 230 kV line from Collierville to Bellota.
2. NCPA MSS Members' rights in Transmission Agency of Northern California's (TANC) ownership of the California-Oregon Transmission Project (COTP), ~~for so long as~~ to the extent that a portion of the COTP remains in the ISO Control Area.
3. Two 230 kV lines from Geysers to Castle Rock Junction. NCPA 230 kV No. 1 goes from Plant No. 1 to Lakeville. NCPA 230 kV No.2 goes from Plant No. 2 to Fulton.
4. All facilities listed on Schedule 14 of this Agreement.

**SCHEDULE 2**  
**INTERCONNECTED OPERATION STANDARDS**  
**[Section 4.2]**

The ISO and NCPA shall jointly maintain stable operating parameters and control real and reactive power flows in accordance with the following Interconnected Operation Standards.

**NCPA Responsibilities**

- 1.0 NCPA shall operate the facilities of NCPA's System at each Point of Interconnection in such manner as to avoid any material or adverse impact on the ISO Control Area. In accordance with this performance goal, NCPA shall:
  - 1.1 Operate the facilities of NCPA's System at each Point of Interconnection within established operating parameters including normal ratings, emergency ratings, voltage limits, and balance of load between electrical phases.
  - 1.2 Maintain primary and backup protective systems such that faults on NCPA's System facilities will be cleared within the timeframe specified by the Participating TO and NCPA with minimal impact on the ISO Controlled Grid.
  - 1.3 Maintain load power factor at each Point of Interconnection with the ISO Controlled Grid in accordance with Section 8.3 of this Agreement.
  - 1.4 In addition, NCPA shall operate the facilities of NCPA's System at each Point of Interconnection in accordance with the requirements applicable to Utility Distribution Companies in the ISO Operating Procedures and standards, and such that at the Points of Interconnection between the ISO Controlled Grid and NCPA's System no circuits or equipment shall exceed the allowable ampacity rating or simultaneous transfer limit between the ISO Controlled Grid and NCPA's System (such simultaneous transfer limit shall be studied and established by the Parties). If the actual or anticipated power flow between the ISO Controlled Grid and NCPA's System causes a circuit at a Point of Interconnection to exceed its applicable ampacity rating or such flow exceeds or is anticipated to exceed the agreed to allowable simultaneous transfer limit between the ISO Controlled Grid and NCPA's System, and further if the ISO determines and NCPA concurs with the ISO's determination, in accordance with Good Utility Practice, that NCPA's System is the cause of such exceedance or anticipated exceedance, NCPA retains the right, and the ISO shall have the right to require NCPA, to take immediate action to reduce such flow on the overloaded circuit or reduce such simultaneous power flow between the ISO Controlled Grid and NCPA's System by one or more actions (as determined by NCPA) including, but not limited to, increasing internal Generation within NCPA's System or curtailing NCPA MSS Member Load as necessary. If the ISO determines, in



accordance with Good Utility Practice, that NCPA's System is not the cause of the existing or anticipated exceedance, the ISO may require third parties to take necessary action to reduce flows on overloaded circuits or reduce simultaneous power flows between the ISO Controlled Grid and NCPA's System if applicable and allowable through arrangements that the ISO may have with such third parties or pursuant to the ISO's authority under the ISO Tariff or its delegated jurisdictional authority through WECC or NERC. If the ISO is unable to determine a) whether NCPA's System caused, or b) to what extent NCPA's System may have caused, such exceedance or anticipated exceedance, or c) the Parties do not agree on the causation determination, the Parties agree, in accordance with Good Utility Practice, to confer and mutually decide what actions shall be taken.

### **ISO Responsibilities**

- 2.0 The ISO shall operate the ISO Controlled Grid at each Point of Interconnection with NCPA in such manner as to avoid any material or adverse impact on NCPA facilities. In accordance with this performance goal, the ISO shall:
  - 2.1 Participate with all affected parties (including NCPA and PG&E) in the development of joint power quality performance standards and jointly maintain compliance with such standards.
  - 2.2 Observe NCPA grid voltage limits specified in Attachment 1 including requirements for reduced voltage on ISO Controlled Grid facilities which apply during heavy fog (or other unusual operating conditions) as needed to minimize the risk of insulator flashover. Any anticipated reduction in operating voltages on ISO Controlled Grid facilities shall be studied and established by NCPA and the ISO.
  - 2.3 Approve NCPA's maintenance requests in a timely manner for transmission facilities that impact the ISO Controlled Grid, and shall not unreasonably withhold approval of such requests for authorization to perform energized insulator washing work or to take planned Outages needed to replace or insul-grease insulators.
  - 2.4 Support NCPA investigation of power quality incidents, and provide related data to NCPA in a timely manner.
  - 2.5 Support installation of apparatus on the ISO Controlled Grid to improve power quality, and take all reasonable measures to investigate and mitigate power quality concerns caused by actions or events in neighboring systems or control areas.
  - 2.6 Maintain load power factor at each Point of Interconnection with NCPA's System in accordance with Section 8.3 of the Agreement.

**SCHEDULE 2**  
**ATTACHMENT 1**

**NCPA GRID VOLTAGE LIMITS**

There are no NCPA grid voltage limitations at the present time.

**SCHEDULE 3****RIGHTS OF ACCESS TO FACILITIES****[Section 4.5.1]**

- 1.0 Equipment Installation.** In order to give effect to this Agreement, a Party that requires use of particular equipment (the equipment owner) may require installation of such equipment on property owned by the other Party (the property owner), provided that the equipment is necessary to meet the equipment owner's service obligations and that the equipment shall not have a negative impact on the reliability of the service provided, nor prevent the property owner from performing its own obligations or exercising its rights under this Agreement.
- 1.1 Free Access.** The property owner shall grant to the equipment owner free of charge reasonable installation rights and rights of access to accommodate equipment inspection, maintenance, repair, upgrading, or removal for the purposes of this Agreement, subject to the property owner's reasonable safety, operational, and future expansion needs.
- 1.2 Notice.** The equipment owner shall provide reasonable notice to the property owner when requesting access for site assessment, equipment installation, or other relevant purposes. Such access shall not be provided unless the parties mutually agree to the date, time, and purpose of each access. Agreement on the terms of the access shall not be unreasonably withheld or delayed.
- 1.3 Removal of Installed Equipment.** Following reasonable notice, the equipment owner shall be required, at its own expense, to remove or relocate equipment, at the request of the property owner, provided that the equipment owner shall not be required to do so if it would have a negative impact on the reliability of the service provided, or would prevent the equipment owner from performing its own obligations or exercising its rights under this Agreement.
- 1.4 Costs.** The equipment owner shall repair at its own expense any property damage it causes in exercising its rights and shall reimburse the property owner for any other reasonable costs that it may be required to incur to accommodate the equipment owner's exercise of its rights under Section 4.5 of this Agreement.
- 2.0 Rights to Assets.** The Parties shall not interfere with each other's assets, without prior written agreement.



**3.0 Inspection of Facilities.** In order to meet their respective obligations under this Agreement, each Party may view or inspect facilities owned by the other Party. Provided that reasonable notice is given, a Party shall not unreasonably deny access to relevant facilities for viewing or inspection by the requesting Party.

**SCHEDULE 4****MAINTENANCE COORDINATION****[Section 5.1.2]**

By October 15<sup>th</sup> of each year, NCPA shall exchange with the ISO a provisional planned outage program for all lines and equipment in Schedule 1. That document will be updated quarterly or as changes occur to the proposed schedule.

The ISO shall approve all proposed outages on equipment and lines listed on Schedule 1 unless a proposed outage would cause the ISO to violate Applicable Reliability Criteria. Approval of outages shall not be unreasonably withheld.

As noted on Schedule 1, some facilities are jointly owned by NCPA and one or more other entities. The ISO acknowledges that, under the terms of the operating agreements applicable to each such facility, NCPA may not be able to control unilaterally the timing of outages. NCPA shall exercise its rights under the operating agreements, if any, applicable to each jointly owned facility listed on Schedule 1 to coordinate scheduling of outages with the ISO in accordance with this Agreement to the maximum extent possible and shall not enter into any operating agreement or amendment to an existing operating agreement with respect to any such facility that diminishes NCPA's rights to schedule outages. However, NCPA shall communicate directly to the ISO regarding its coordination of scheduled outages.

Applications for scheduled work shall be submitted to the ISO by NCPA's Grid Operations group via means to be agreed to by both Parties. The documents submitted by NCPA shall record the details for all work and become the database for reporting and recording outage information.



**SCHEDULE 5****CRITICAL PROTECTIVE SYSTEMS****[Section 5.3]**

Distribution protective relay schemes affecting the ISO Controlled Grid are those associated with transformers that would trip transmission breakers and/or busses at NCPA's Points of Interconnection when activated. These would include any of the following:

1. High Side Overcurrent Relays
2. Differential Overcurrent Relays
3. Sudden Pressure Relays
4. Low Oil Relays
5. Neutral Ground Overcurrent Relays
6. On fuse protected transformers, it would be the high-side fuses.

NCPA shall provide the ISO a description of the relaying schemes at the Points of Interconnection prior to commencing operations as an MSS Aggregator.

**SCHEDULE 6**

**[PRIVILEGED MATERIAL REDACTED PURSUANT TO  
18 C.F.R. § 388.112]**

**SCHEDULE 7****EMERGENCIES****[Section 7.2]**

The ISO shall notify NCPA's Power Control Center ("PCC") Operator, as identified in Schedule 6, of the emergency, including information regarding the cause, nature, extent, and potential duration of the emergency. The PCC Operator shall make the appropriate notifications within NCPA organization. The PCC Operator shall then take such actions as are appropriate for the emergency.

NCPA shall make requests for information from the ISO regarding emergencies through contacts to the ISO's Operations Shift Supervisor, by NCPA's PCC Operator, or NCPA's Information Officer may coordinate public information with the ISO Communication Coordinator.

NCPA is required to estimate service restoration by geographic areas, and shall use its call center and the media to communicate with customers during service interruptions. NCPA is also required to communicate the same information to appropriate state and local governmental entities. For transmission system caused outages, the ISO's Operations Shift Supervisor will notify the PCC Operator, who will make appropriate notifications within NCPA's organization of any information related to the outage such as cause, nature, extent, potential duration and customers affected.

The PCC Operator and Grid Control Center logs, Electric Switching Orders and Energy Management System temporal database will be used in preparation of outage reviews. These documents are defined as the chronological record of the operation of the activities which occur with the portion of the electrical system assigned to that control center. The log shall contain all pertinent information, including orders received and transmitted, relay operations, messages, clearances, accidents, trouble reports, daily switching program, etc.

NCPA shall retain records in accordance with its standard practices for six years.

**SCHEDULE 8****UNDERFREQUENCY LOAD SHEDDING****[Section 7.4.1]**

The objective of the Under Frequency Load Shedding (UFLS) program is to provide security and protection to the interconnected bulk power network by arresting frequency decay during periods of insufficient resources

NCPA's UFLS program establishes Under Frequency Load Shedding objectives consistent with the load shedding policies of the Western Electricity Coordinating Council, the North American Electric Reliability Council, and NCPA. NCPA's UFLS program, as implemented by the NCPA MSS Members, shall at all times comport with the requirements of the WECC Coordinated Off-Nominal Frequency Load Shedding and Restoration Plan (Final Report November 25, 1997, as revised December 5, 2003) and any of its subsequent amendments. NCPA's UFLS program utilizes WECC planning criteria in this area. Per WECC requirements, UFLS is on the feeder side of the transformer.

NCPA's UFLS program, other than for the Port of Oakland, is set forth in Attachment A to NCPA's EAP, which is attached to Schedule 11, and incorporates the tripping scheme set forth therein.

The Port of Oakland will continue to participate in the UFLS program of PG&E. The Port of Oakland's Interconnection Agreement with PG&E, dated December 15, 2000 (with a termination date in Section 5.3.1(b) of that agreement of no later than January 1, 2021) and which, to the extent relevant to the UFLS obligations under this agreement, is incorporated herein by reference, provides the Port of Oakland's UFLS program for distribution circuits when required by PG&E in accordance with the PG&E Electrical Emergency Plan (EEP) dated June 20, 2002 and which, to the extent relevant to the UFLS obligations under this agreement, is incorporated herein by reference. NCPA will develop a separate UFLS program for the Port of Oakland prior to such time as the Port of Oakland's Interconnection Agreement with PG&E described above may cease to apply for any reason to the Port of Oakland, including without limitation by way of amendment or termination, or that would in the ISO's discretion effectively cease to satisfy the UFLS obligations under this Agreement. Until such time as NCPA and the Port of Oakland implement a program for Port of Oakland's UFLS independent of PG&E, NCPA and the Port of Oakland shall continue to operate in accordance with the applicable PG&E EEP dated June 30, 2002 and the Port of Oakland's Interconnection Agreement with PG&E, dated December 15, 2000. NCPA will notify the ISO immediately if the PG&E UFLS program described above ceases to apply to Port of Oakland.

This Schedule 8 and the NCPA EAP shall be revised to incorporate updated, including any separate UFLS program for Port of Oakland, upon implementation by NCPA.



## **SCHEDULE 9**

### **OTHER AUTOMATIC LOAD SHEDDING**

#### **[Section 7.4.1]**

NCPA has no other automatic load shedding devices other than those identified in Schedule 8.



## **SCHEDULE 10**

### **MANUAL LOAD SHEDDING**

#### **[Section 7.4.1]**

Criteria for the implementation of manual Load Shedding are set forth in the NCPA Emergency Action Plan attached to Schedule 11.

**SCHEDULE 10A****ROTATING LOAD CURTAILMENT PROCEDURES****[Section 7.4.1]**

NCPA's rotating Load curtailment procedures are described in the NCPA Emergency Action Plan attached to Schedule 11. To maintain a minimum amount of continuously interrupted Load, as directed by the ISO, for an extended amount of time, no portion of NCPA's interrupted Load shall be restored unless an equal or greater amount of Load is interrupted first.

**SCHEDULE 10B****INTERRUPTIBLE LOAD****[Section 7.4.1]**

Should NCPA establish an interruptible Load program and seek to bid any interruptible Load into any ISO market, NCPA shall provide a complete description of the program to the ISO at least sixty (60) days prior to the submission of the first such bid by NCPA's Scheduling Coordinator and all applicable Operating Procedures shall be followed.



**SCHEDULE 11**

**[PRIVILEGED MATERIAL REDACTED PURSUANT TO  
18 C.F.R. § 388.112]**

**SCHEDULE 12****LOAD RESTORATION****[Section 7.4.3]**

NCPA shall follow the procedures set forth below in this Schedule 12 in promoting orderly, coordinated restoration of electric systems after a major system disturbance has occurred which resulted in load shedding by frequency relays in California.

1. Immediately after load shedding by frequency relay has occurred in NCPA's System, NCPA shall remain in contact with PG&E's Area Control Center (ACC) until normal frequency has been restored throughout the ISO Control Area or the ISO Shift Manager has concluded that such full-time communications can be terminated. Emergency communications over the California ACC Hot-line will be under the direction of the ISO Shift Manager and the senior dispatcher present at the PG&E ACC(s).
2. Manual load restoration shall not normally be initiated until the California ACC Hot Line is attended. No load is to be manually restored unless directed by the ISO, either directly or through its assignee, provided that the procedure for the ISO's designation of any assignee is agreed to by NCPA, after the frequency has recovered and there is indication that the frequency can be maintained. NCPA shall await direction from the ISO or its assignee, who will be in contact with the ISO Shift Manager. The ISO Shift Manager shall determine whether adequate generation resources are available on line to support the load to be restored.
3. If the ISO cannot meet the WECC and NERC Control Area Disturbance Control Standard or the Control Performance Standard post disturbance, no manual load restoration shall be permitted. If the frequency is such that automatic load restoration occurs under these conditions, if NCPA has restored load automatically, it will manually shed an equivalent amount of load to offset the load which was automatically restored.
4. Restoration of ties and off-site power supply to nuclear generating facilities should be given top priority. Manual load restoration will be deferred during periods of tie restoration. NCPA should be equipped and prepared to drop load manually when necessary to allow frequency recovery sufficient to re-establish ISO intra-area ties and ties between the ISO Control Area and outside systems. Where manual load shedding is required, the ISO shall make reasonable efforts to allocate the load shedding requirement equitably among NCPA, UDCs, and MSS Operators where load shedding shall be beneficial, and such load shedding shall be made in accordance with Section 7.4.
5. NCPA shall use its existing plans and priorities to restore load within the parameters given by the ISO, giving the appropriate priority to essential



services such as military, public safety agencies, water treatment plants, sewage treatment plants, etc.

**SCHEDULE 13**

**EXISTING CONTRACTS, AND ENCUMBRANCES AND TRANSMISSION OWNERSHIP RIGHTS**

**[Sections 9.1.1 and 11.3]**

Existing Contract or Encumbrance	Amount (MW)	Scheduling Timelines	
		To PG&E	To ISO
Contract 2948A between WAPA and PG&E (PG&E # 79)**	258.2	20 min into the active half hour	In accordance with the ISO Tariff
COTP Interim Participation Agreement, scheduled in accordance with the Coordinated Operations Agreement among PG&E, SCE, SDG&E and TANC (PG&E # 146)**	382 North to South* (252 + 130) 292 South to North* (192 + 100)	N/A	30 min prior to the start of the active hour
South of Tesla Principles (SOTP) between PG&E and TANC (PG&E # 143)	102* (81 + 21)	30 min prior to the start of the active hour	In accordance with the ISO Tariff
<b><u>NCPA System Transmission Ownership Rights in the ISO Control Area at Control Area Interties (and Related Contracts)</u></b>	<b><u>Amount (MW)</u></b>	<b><u>Scheduling Timelines</u></b>	
			<u>To ISO</u>
<u>Plumas-Sierra Rural Electric Cooperative transmission ownership rights up to Marble Substation intertie (as described in the ISO's Interconnected Control Area Operating Agreement with Sierra Pacific Power Co. for the Marble Substation intertie)</u>	<u>25</u>	<u>N/A</u>	<u>30 min prior to the start of the active hour</u>
<u>COTP Terminus (as described in the ISO-SMUD Interconnected Control Area Operating Agreement)</u>	<u>382 North to South* (252 + 130) 292 South to North* (192 + 100)</u>	<u>N/A</u>	<u>30 min prior to the start of the active hour</u>



\*The amount of NCPA Members Existing Contracts and Encumbrances, and transmission ownership rights for the COTP Terminus, associated with its ISO contract reference numbers (GRNs) shown above aggregates NCPA's and SVP's COTP and SOTP rights. Such COTP and SOTP amounts are subject to interim adjustment in accordance with the Settlement Agreement. Interim adjustments shall not require amendment to this Agreement; provided, however, permanent changes to these GRN amounts will be deemed an amendment to this Agreement and shall be given affect in accordance with the Settlement Agreement. The ~~COTP Interim Participation Agreement/Coordinated Operations Agreement~~ COTP Terminus transmission ownership rights amounts are contingent upon the direction of the transaction and the California Oregon Intertie rating. The SOTP amounts are contingent upon the availability of unused transmission service rights as further described in the Path 15 Operating Instructions (Appendix B, Transmission Control Agreement, as approved in Docket ER99-1770 and as may be amended or superceded).

\*\*These contracts terminate in accordance with their terms as of January 1, 2005, subject to acceptance by FERC of their termination. Notice of termination of the contracts has been filed with FERC and is pending a FERC order accepting termination. These contracts will no longer be applicable Existing Contracts or Encumbrances after the effective date of acceptance by FERC of their termination.

Note: Details regarding the agreed upon scheduling provisions for each Existing Contract or Encumbrance are described in the Settlement Agreement.

**SCHEDULE 14****GENERATING UNITS AND PARTICIPATING LOADS****[Section 10.1]**

NCPA has identified in the attached table all of the individual Generating Units and Participating Loads that it owns or controls on NCPA's System, together with certain information required by the ISO.

**Schedule 14**

**Section 1: Technical Characteristics of Generating Units  
Northern California Power Agency**

Name of Facility (Including Unit Number)	QF (Y/N)	RMR (Y/N)	Name of Generating Unit Owner	ISO Resource ID	Type of Unit	Primary Fuel Type	Designed Gross (Nameplate) Capacity 1/ (MW)	Limitations (Reference #)
Alameda Gas Turbine #1	N	Y	NCPA	ALMEGT_1_UNIT 1	Combustion Turbine	Natural Gas	25.40	THERM2
Alameda Gas Turbine #2	N	Y	NCPA	ALMEGT_1_UNIT 2	Combustion Turbine	Natural Gas	25.40	THERM2
Collierville Hydro Aggregate	N	N	NCPA	COLVIL_7_PL1X2	Hydro Aggregate	Water	252.50	HYD1
Collierville Hydro Unit 1	N	N	NCPA		Hydro	Water	126.50	HYD1
Collierville Hydro Unit 2	N	N	NCPA		Hydro	Water	126.00	HYD1
Geothermal Plant 1 - Unit 1	N	N	NCPA	NCPA_7_GP1UN1	Geothermal	Geothermal	55.00	GEO1, 6
Geothermal Plant 1 - Unit 2	N	N	NCPA	NCPA_7_GP1UN2	Geothermal	Geothermal	55.00	GEO2, 6
Geothermal Plant 2 - Unit 3	N	Y	NCPA	NCPA_7_GP2UN3	Geothermal	Geothermal	55.00	GEO4, 7
Geothermal Plant 2 - Unit 4	N	Y	NCPA	NCPA_7_GP2UN4	Geothermal	Geothermal	55.00	GEO5, 7
Graeagle Hydro Project	N	N	Henwood	GRGLHP_6_UNITA1	Hydro			HYD2
Lake Mendocino Hydro Aggregate	N	N	City of Ukiah	UKIAH_7_LAKEMN	Hydro Aggregate	Water	3.50	HYD4
Lake Mendocino Unit 1	N	N	City of Ukiah		Hydro	Water	1.00	
Lake Mendocino Unit 2	N	N	City of Ukiah		Hydro	Water	2.50	
Lodi Gas Turbine	N	N	NCPA	LODI25_2_UNIT 1	Combustion Turbine	Natural Gas	25.40	THERM3
Lodi Steam Injected Gas Turbine	N	N	NCPA	STIGCT_2_LODI	Combustion Turbine	Natural Gas	51.20	THERM4, 5
Spicer Hydro Aggregate	N	N	NCPA	SPICTER_1_UNITS	Hydro Aggregate	Water	6.00	HYD3
Spicer Hydro Unit 1	N	N	NCPA		Hydro	Water	2.80	
Spicer Hydro Unit 2	N	N	NCPA		Hydro	Water	2.80	
Spicer Hydro Unit 3	N	N	NCPA		Hydro	Water	0.50	

1/ Current effective values for purposes of scheduling Energy and bidding to provide Energy and/or Ancillary Services in ISO markets may differ from those set forth in this Schedule 1, depending on the results of ISO performance testing pursuant to Sections 2.5.24 and 2.5.25 of the ISO Tariff and Section 9 of the ISO Ancillary Services Requirements Protocol. This and other values are subject to certification by the ISO in accordance with Section 4.3.2 of the Participating Generator Agreement. More detailed Generating Unit operating data must be provided at a time and in a format specified by the ISO in response to ISO requests pursuant to ISO Tariff Sections 5.3 and 5.8.1.

## SCHEDULE 14

### Section 2: Limitations - Thermal Units Northern California Power Agency

Reference #	Description of Limitation
THERM1	Deleted
THERM2	For the Alameda Gas Turbine Units, air emissions permit limits total generation at the Alameda site to 25,800 gross MWhr per year. (ie. Any combination of generation from Alameda Unit 1 and 2 is limited to 25,800 MWhr per year). Annual operating hours limited to 877 hours. Each unit has a minimum off time of 15 minutes.
THERM3	For the Lodi Gas Turbine unit, air emissions permit limits daily operating hours (See Lodi Limitations tab). Unit is limited to 7 gallons of diesel fuel through the starting engine or approximately 2 starts per day. (a failed start counts as a start). Annual operating hours are limited to 877 hours. Unit has a minimum off time of 15 minutes.
THERM4	For the Lodi STIG unit, daily emissions limits are 112 lbs of NOx. At start up, approximately 50 lbs of NOx are emitted over a three to four hour period. After that, the unit emits approximately 3 lbs of NOx per hour at rated capacity. These emissions limits would be reached after 23 hours of operation at the Normal Maximum Operating Limit specified in Section 1 from a single start-up.
THERM5	Lodi STIG 49.9MW net per permit conditons and 1.3MW of parasitic load.



**Lodi Gas Turbine**  
**Additional Limitations based on Generation Levels**

<b>Gross Generation (MW)</b>	<b>Daily Operating Hours</b>
22.2	11
25	10.7
26	10.3
27	9.9
28	9.5

## SCHEDULE 14

### Section 2: Limitations - Hydro Units Northern California Power Agency

Reference #	Description of Limitation
HYD1	For Collierville Hydro, FERC license requirements and California State Fish Game requirements govern Hydro facility operations. Reservoir spills at Elevation of 3370 feet. Reservoir minimum operating elevation of 3318 feet (No spilling allowed). Unit trips at reservoir elevation of 3280 feet. Operations at the minimum operating level of 3-5 mw will be determined by cooling water temperatures. At this time the maximum station ramping rate has been determined to be 25MW/minute based on the CCWD water tap. Unit 1 and 2 will be operated as a single unit with a single resource ID.
HYD2	Graeagle Hydro Project is exempted from NCPA scheduling and ISO metering. When it runs, it will have the effect of reducing load within Plumas Sierra MSS.
HYD3	For Spicer Hydro Plant, FERC license requirements and California State Fish Game requirements govern Hydro facility operations. Minimum elevation for 2.75 MW output is 6560 feet. Maximum elevation is 6610 feet. Minimum elevation to operate is 6488 feet. New Spicer ramp rate (maximum) is 14 hours to full load. New Spicer ramp rate (maximum) from full load to minimum load is 16 hours.
HYD4	Lake Mendocino Hydro is out of service for refurbishment and is inactive within the ISO systems until 30 days advance notice from NCPA.

## SCHEDULE 14

### Section 2: Limitations - Geothermal Units Northern California Power Agency

Reference #	Description of Limitation
GEO1	For Geothermal Plant 1 - Unit 1, Aggregate Geo operations are limited to Confidential Geothermal Operating Plan (see tab)
GEO2	For Geothermal Plant 1 - Unit 2, Aggregate Geo operations are limited to Confidential Geothermal Operating Plan (see tab)
GEO3	Deleted
GEO4	For Geothermal Plant 2 - Unit 3, Aggregate Geo operations are limited to Confidential Geothermal Operating Plan (see tab)
GEO5	For Geothermal Plant 2 - Unit 4, Aggregate Geo operations are limited to Confidential Geothermal Operating Plan (see tab)
GEO6	For Geothermal Plant 1, individual unit ratings for units 1 and 2 are 44 and 42 MW, respectively. When both units are operating, output reduces to 41 and 33 MW, respectively.
GEO7	For Geothermal Plant 2, individual unit ratings for units 3 and 4 are 42.42 and 46.03 MW, respectively. When both units are operating, output reduces to 36 and 33 MW, respectively.
GEO8	Deleted

## SCHEDULE 14

### Section 2: Limitations Northern California Power Agency

#### Geothermal Operating Plan <sup>(4)</sup>

Geothermal Unit	Daily Max <sup>(1)</sup> Operating Cap (MWG)	Daily Min Operating Cap (MWG)	Annual Avg Capacity (MWG)
1	35	35	34
2	35	35	34
3	32	20 <sup>(2)</sup>	30
4	35	20 <sup>(2)</sup>	34
Total	137	110	132-134 <sup>(3)</sup>

<sup>(1)</sup> Daily Max Generation varies as steam field conditions change

<sup>(2)</sup> Single unit operation at minimum Plant 2 load of 20 MW

<sup>(3)</sup> Annual target range set by changes in plant, steamfield, availability factor and market conditions

<sup>(4)</sup> Values indicated are applicable at the time of revision of this MSS Schedule 14. Stated values may vary over time due to natural changes in the steam field conditions that cannot be precisely predicted or forecasted. Values will be revised as necessary upon subsequent revisions to this MSS Schedule 14.

**SCHEDULE 15****METERING OBLIGATIONS****[Section 12.2]****Obligations and Rights of NCPA**

- 1.0 Submission of Meter Data through the ISO's Revenue Meter Data Acquisition and Processing System ("MDAS").** NCPA agrees to make available to the ISO through MDAS its Meter Data in accordance with the ISO Tariff. The ISO's requirements regarding the frequency with which it requires Meter Data to be made available to it through MDAS by NCPA are referred to in the Metering Protocol of the ISO Tariff.
- 1.1 Meter Information.** NCPA shall provide in the format prescribed by Schedule 15.1 the required information with respect to all of its meters used to provide Meter Data to the ISO. NCPA must immediately notify the ISO of any changes to the information provided to the ISO in accordance with this Section and provide the ISO with any information in relation to such change as reasonably requested by the ISO. NCPA shall have the right to modify Schedule 15.1, although such modification shall not constitute an amendment to this Agreement.
- 1.2 Transformer and/or Line Loss Correction Factor.** If NCPA uses low voltage side metering, it shall use the ISO approved transformer and/or line loss correction factor referred to in the Metering Protocol of the ISO Tariff.
- 1.3 Rights to Access Metering Facilities.** NCPA shall use its best efforts to procure any rights necessary for the ISO to access all Metering Facilities of NCPA MSS Members to fulfill its obligations under the ISO Tariff, and its obligations under this Agreement. If, after using its best efforts, NCPA is unable to provide the ISO with such access rights, NCPA shall ensure that one of its employees is an ISO Authorized Inspector and such employee undertakes, at the ISO's request, the certification, testing, inspection and/or auditing of those Metering Facilities in accordance with the procedures established pursuant to the Metering Protocol of the ISO Tariff, including the requirement to complete and provide to the ISO all necessary documentation. The ISO acknowledges that it will not be prevented from fulfilling its obligations under the ISO Tariff or this Agreement by reason of the fact that it is provided with escorted access to the Metering Facilities of NCPA.
- 1.4 Security and Validation Procedures.** The security measures and the validation, editing, and estimation procedures that the ISO shall apply to Meter Data made available to the ISO by NCPA shall be as referred to in the Metering Protocol of the ISO Tariff.

- 1.5 Authorized Users.** In addition to the persons referred to in the ISO Tariff, including NCPA and the relevant Scheduling Coordinator, as being entitled to access Meter Data on MDAS, NCPA may set forth in Schedule 15.2 of this Agreement any additional authorized users that shall be entitled to access NCPA's Settlement Quality Meter Data held by the ISO. NCPA shall include in Schedule 15.2 as authorized users the relevant UDCs and TOs. The ISO shall provide the authorized users with any password or other information necessary to access NCPA's Settlement Quality Meter Data held by the ISO on MDAS. Any amendment or addition to Schedule 15.2 shall not constitute an amendment to this Agreement.
- 1.6 Certification, Inspection, and Auditing of Meters.** NCPA shall be responsible for all reasonable costs incurred by the ISO or an ISO Authorized Inspector in connection with them carrying out the certification, inspection, testing or auditing of the meters identified in Schedule 15.1 from which NCPA provides Meter Data to the ISO. The ISO or ISO Authorized Inspector shall furnish NCPA, upon request, an itemized bill for such costs.

### **Obligations and Rights of the ISO**

- 2.0 Direct Polling of MDAS.** The ISO shall allow the Scheduling Coordinator representing NCPA and all authorized users to directly poll MDAS for the Meter Data relating to NCPA in accordance with the procedures referred to in the Metering Protocol of the ISO Tariff.
- 2.1 ISO as a Third-Party Beneficiary.** The ISO shall be a third-party beneficiary to any future agreement between NCPA and any other party relating to the Metering Facilities of NCPA for the purpose of granting the ISO access to any relevant information, records and facilities as needed by the ISO to fulfill its obligations under the ISO Tariff and its obligations under this Agreement.
- 2.2 Remote and Local Access to Metering Data.** The ISO shall provide NCPA any password or other requirements necessary for NCPA to access its Meter Data remotely or locally at the meter.

### **Calculation of NCPA Settlement Quality Meter Data**

The calculation of NCPA's Settlement Quality Meter Data ("SQMD") shall be made in accordance with a calculation procedure that is mutually agreed by the Parties, which calculation procedure will generally be as follows:

NCPA SQMD (Gross Load) = Meter Data at the Points of Interconnection  
plus Metered Generation from Internal Generating  
Units



This calculation will be done on an aggregated basis, by Demand zone, consistent with the level of aggregation of the Schedules that will be submitted to the ISO and to PG&E.

**SCHEDULE 15.1**

**[PRIVILEGED MATERIAL REDACTED PURSUANT TO  
18 C.F.R. § 388.112]**





**SCHEDULE 15.2**

**ACCESS TO METER DATA  
AND AUTHORIZED USERS**

[NCPA shall provide in Schedule 15.2 a list of all authorized users of NCPA's Settlement Quality Meter Data and any restrictions or limitations placed on them.]

PG&E

Western Area Power Administration

**SCHEDULE 16**

**TRANSMISSION RELIABILITY CRITERIA**

**[Section 13.5]**

For transmission reliability, NCPA shall abide by all NERC and WECC Planning Criteria and the following:

**Power Flow Assessment:**

	Criteria	
Contingencies	Thermal <sup>3</sup>	Voltage <sup>4</sup>
Generating unit <sup>1</sup>	A/R	A/R
Transmission line <sup>1</sup>	A/R	A/R
Transformer <sup>1</sup>	A/R <sup>5</sup>	A/R <sup>5</sup>
Overlapping <sup>2</sup>	A/R	A/R

- 1 All single contingency outages (i.e. generating unit, transmission line or transformer) will be simulated on participating transmission owners' local area systems.
- 2 Key generating unit out, system readjusted, followed by a line outage.
- 3 Applicable Rating – Based on ISO Transmission Register or facility upgrade plans.
- 4 Applicable Rating – ISO Grid Planning Criteria or facility owner criteria as appropriate.
- 5 Based on judgement of ISO and facility owner, a thermal or voltage criterion violation resulting from a transformer outage may not be cause for Reliability Must-Run Generation solution if the violation is considered marginal (e.g. acceptable loss of life or low voltage), otherwise (e.g. unacceptable loss of life or voltage collapse) a Reliability Must-Run Generation solution would be indicated.

**Post Transient Load Flow Assessment:**

Contingencies	Reactive Margin Criteria <sup>2</sup>
Selected <sup>1</sup>	A/R

- 1 If power flow results indicate significant low voltages for a given power flow contingency, simulate that outage using the post transient load flow program. The post-transient assessment will develop appropriate Q/V and/or P/V curves.
- 2 Applicable Rating – positive margin based on 105% of 1 in 2 year load forecast.



## Stability Assessment:

Contingencies

Stability Criteria <sup>2</sup>

Selected <sup>1</sup> A/R

- 1 If power flow or post transient study results indicate significant low voltages or marginal reactive margin for a given contingency, simulate that outage using the dynamic stability program.
- 2 Applicable Rating – ISO Grid Planning Criteria or facility owner criteria as appropriate.

**SCHEDULE 17****NOTICES****[Section 19.1]****NCPA**

Name of Primary

Representative: Don Dame  
Title: Asst General Manager  
Address: 180 Cirby Way  
City/State/Zip Code: Roseville CA 95678  
Email Address: ddame@ncpa.com  
Phone: (916) 781 - 4207  
Fax No: (916) 781 - 4252

Name of Alternative

Representative: Matt Foskett  
Title: Supervisor Power Contracts  
Address: 180 Cirby Way  
City/State/Zip Code: Roseville CA 95678  
Email Address: matt@ncpa.com  
Phone: (916) 781 - 4217  
Fax No: (916) 781 - 4252

**ISO**

## Name of Primary

Representative: ~~Thomas Doughty~~Michael D. Dozier  
Title: ~~Director of Client Relations~~Lead Contracts Negotiator  
Address: 151 Blue Ravine Road  
City/State/Zip Code: Folsom, CA 95630  
Email Address: ~~tdoughty~~mdozier@caiso.com  
Phone: (916) 608-~~7373~~5708  
Fax No: (916) 608-~~7074~~351-2487

## Name of Alternative

Representative: ~~Deborah A. Le Vine~~Philip D. Pettingill  
Title: ~~Director~~Manager of Infrastructure Policy & Contract  
Negotiations  
Address: 151 Blue Ravine Road  
City/State/Zip Code: Folsom, CA 95630  
Email Address: ~~dlevine~~ppettingill@caiso.com  
Phone: (916) 351-~~2444~~608-7241  
Fax No: (916) 351-~~226~~487



**SCHEDULE 18**

**NCPA MEMBERS**

**[Section 1.2]**

**NCPAB**

Alameda Power & Telecom

City of Biggs

City of Gridley

City of Healdsburg

City of Lodi

City of Lompoc

City of Palo Alto

City of Ukiah

Plumas-Sierra Rural Electric Cooperative

Port of Oakland (The Port of Oakland's Oakland International Airport Service Area, the Port of Oakland Harbor Service Area, and the Port of Oakland Army Base)

**NCPAS**

City of Santa Clara (Silicon Valley Power)