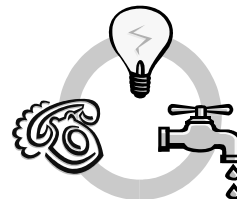


# INDUSTRY PUBLIC UTILITIES COMMISSION CITY OF INDUSTRY



SPECIAL MEETING AGENDA  
MARCH 28, 2019 8:30 A.M.

President Mark D. Radecki  
Commissioner Abraham N. Cruz  
Commissioner Catherine Marcucci  
Commissioner Cory C. Moss  
Commissioner Newell W. Ruggles



*Location: City Council Chamber, 15651 East Stafford Street, City of Industry, California*

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## **Addressing the Commission:**

- ▶ **Agenda Items:** Members of the public may address the Commission on any matter listed on the Agenda. Anyone wishing to speak to the Commission is asked to complete a Speaker's Card which can be found at the back of the room and at the podium. The completed form should be submitted to the City Clerk prior to the Agenda item being called and prior to the individual being heard by the Commission.
- ▶ **Public Comments (Agenda Items Only):** During public comments, if you wish to address the City Council during this Special Meeting, under Government Code Section 54954.3(a), you may only address the City Council concerning any item that has been described in the notice for the Special Meeting.

## **Americans with Disabilities Act:**

- ▶ In compliance with the ADA, if you need special assistance to participate in any City meeting (including assisted listening devices), please contact the City Clerk's Office (626) 333-2211. Notification of at least 48 hours prior to the meeting will assist staff in assuring that reasonable arrangements can be made to provide accessibility to the meeting.

## **Agendas and other writings:**

- ▶ In compliance with SB 343, staff reports and other public records permissible for disclosure related to open session agenda items are available at City Hall, 15625 East Stafford Street, Suite 100, City of Industry, California, at the office of the City Clerk during regular business hours, Monday through Thursday 8:00 a.m. to 5:00 p.m., Friday 8:00 a.m. to 4:00 p.m. Any person with a question concerning any agenda item may call the City Clerk's Office at (626) 333-2211.
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1. Call to Order
2. Flag Salute
3. Roll Call
4. Public Comment

5. **BOARD MATTERS**

- 5.1 Consideration of the Register of Demands for March 28, 2019

*RECOMMENDED ACTION: Approve the Register of Demands and authorize the appropriate City Officials to pay the bills.*

- 5.2 Consideration of the minutes of March 14, 2019 regular meeting

*RECOMMENDED ACTION: Approve as submitted.*

- 5.3 Consideration of Resolution No. IPUC 2019-01 – A RESOLUTION OF THE INDUSTRY PUBLIC UTILITIES COMMISSION OF THE CITY OF INDUSTRY, CALIFORNIA, TO AMEND THE BUDGET FOR FISCAL YEAR 2018-19

*RECOMMENDED ACTION: Adopt Resolution No. IPUC 2019-01.*

- 5.4 Update on Master Power Purchase and Sale Agreement and Confirmation Agreement with Powerex Corporation for the procurement of Bundled Renewable Energy

*RECOMMENDED ACTION: Receive and file report.*

- 5.5 Consideration of Amendment No. 1 to the Master Power Purchase and Sale Agreement with Calpine Energy Solutions, LLC to update the Schedule of Hourly Contract Quantities

*RECOMMENDED ACTION: Approve the Amendment.*

- 5.6 Consideration and approval of the IPUC Energy Efficiency Program to fund investments in certain designated public benefits programs for an amount not-to-exceed \$307,000 through March 1, 2021

*RECOMMENDED ACTION: Approve the Energy Efficiency Program.*

- 5.7 Consideration of the Western Systems Power Pool (WSPP) Agreement and Membership to facilitate the purchase of power by the IPUC

*RECOMMENDED ACTION: Approve the Agreement.*

6. Adjournment. Next regular meeting: Thursday, April 11, 2019 at 8:30 a.m.

*INDUSTRY PUBLIC UTILITIES COMMISSION*

ITEM NO. 5.1

**INDUSTRY PUBLIC UTILITIES COMMISSION**

AUTHORIZATION FOR PAYMENT OF BILLS

Board Meeting March 28, 2019

<u>FUND</u>	<u>DESCRIPTION</u>	DISBURSEMENTS
161	IPUC - ELECTRIC	84,882.69

<u>BANK</u>	<u>DESCRIPTION</u>	DISBURSEMENTS
WFBK	IPUC ELECTRIC WELLS FARGO CHK	84,882.69

**APPROVED PER CITY MANAGER**

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**Industry Public Utilities Commission  
Wells Fargo - Electric  
March 28, 2019**

Check	Date			Payee Name	Check Amount
<b>IPUCELEC.WF.CHK - IPUC Electric Wells Fargo CHK</b>					
<b>10062</b>	03/14/2019			<b>AT &amp; T</b>	<b>\$704.88</b>
	Invoice	Date	Description	Amount	
	7748456404	02/23/2019	01/19-02/18/19 SVC - METROLINK	\$176.00	
	8965803098	03/01/2019	03/01-03/31/19 SVC - METROLINK-TELECOM BUILDING	\$225.00	
	3107802113	03/01/2019	03/01-03/31/19 SVC - METROLINK-T1 CIRCUIT	\$303.88	
<b>10063</b>	03/14/2019			<b>FRONTIER</b>	<b>\$1,226.54</b>
	Invoice	Date	Description	Amount	
	2019-00001257	03/01/2019	03/01-03/31/19 SVC - GS-21700 VALLEY BLVD	\$57.91	
	2019-00001258	03/01/2019	03/01-03/31/19 SVC - GS-21650 VALLEY BLVD	\$55.23	
	2019-00001259	03/01/2019	03/01-03/31/19 SVC - VARIOUS GENERATOR SITES	\$1,113.40	
<b>10064</b>	03/14/2019			<b>SO CALIFORNIA EDISON COMPANY</b>	<b>\$322.47</b>
	Invoice	Date	Description	Amount	
	2019-00001295	03/06/2019	02/01-03/01/19 SVC - VARIOUS SITES-INTERCONNECT	\$322.47	
<b>10065</b>	03/18/2019				<b>\$0.00</b>
	Invoice	Date	Description	Amount	
	2019-00001295		VOIDED - VOIDED CHECK NEEDED FOR EDISON	\$0.00	
<b>10066</b>	03/20/2019			<b>FRONTIER</b>	<b>\$158.45</b>
	Invoice	Date	Description	Amount	
	2019-00001312	03/04/2019	03/04-04/03/19 SVC - EM-21858 GARCIA LN	\$71.38	
	2019-00001313	03/04/2019	03/04-04/03/19 SVC - GS-21620 VALLEY BLVD	\$57.91	
	2019-00001314	03/07/2019	03/07-04/06/19 SVC - GS-408 BREA CYN RD	\$29.16	
<b>10067</b>	03/20/2019			<b>SO CALIFORNIA EDISON COMPANY</b>	<b>\$20,939.83</b>

**Industry Public Utilities Commission  
Wells Fargo - Electric  
March 28, 2019**

Check	Date			Payee Name	Check Amount
<b>IPUCELEC.WF.CHK - IPUC Electric Wells Fargo CHK</b>					
	Invoice	Date	Description		Amount
	2019-00001315	03/09/2019	10/02-10/09/18 SVC - CLOSING BILL-208 S. WADDINGHA		\$31.61
	2019-00001316	03/09/2019	02/01-03/01/19 SVC - 208 S WADDINGHAM WAY		\$20,908.22
<b>10068</b>	03/20/2019			<b>SOCALGAS</b>	<b>\$50.00</b>
	Invoice	Date	Description		Amount
	2019-00001317	03/06/2019	02/01-03/01/19 SVC - 1 INDUSTRY HILLS PKWY UNIT B		\$50.00
<b>10069</b>	03/28/2019			<b>BUTSKO UTILITY DESIGN INC.</b>	<b>\$8,817.50</b>
	Invoice	Date	Description		Amount
	117520	02/23/2019	UTILITY ENGINEERING SVC		\$630.00
	117519	02/23/2019	UTILITY ENGINEERING SVC		\$8,187.50
<b>10070</b>	03/28/2019			<b>CNC ENGINEERING</b>	<b>\$12,725.00</b>
	Invoice	Date	Description		Amount
	458310	03/14/2019	METROLINK OPERATION AND MAINT		\$1,545.00
	458330	03/14/2019	CITY ELECTRICAL FACILITES		\$11,180.00
<b>10071</b>	03/28/2019			<b>PACIFIC UTILITY INSTALLATION</b>	<b>\$36,561.00</b>
	Invoice	Date	Description		Amount
	18948	02/28/2019	SUBSTATION MAINT		\$4,200.00
	18949	02/28/2019	SUBSTATION MAINT		\$4,200.00
	18960	02/28/2019	OPERATIONS/MAINT-VARIOUS SITES		\$5,157.00
	18961	02/28/2019	OPERATIONS/MAINT-VARIOUS SITES		\$5,765.00
	18964	02/28/2019	OPERATIONS/MAINT-VARIOUS SITES		\$2,581.00
	18965	02/28/2019	OPERATIONS/MAINT-VARIOUS SITES		\$9,742.00
	18973	02/28/2019	OPERATIONS/MAINT-VARIOUS SITES		\$294.00

**Industry Public Utilities Commission**  
**Wells Fargo - Electric**  
**March 28, 2019**

Check	Date		Payee Name	Check Amount
<b>IPUCELEC.WF.CHK - IPUC Electric Wells Fargo CHK</b>				
	18974	02/28/2019	OPERATIONS/MAINT-VARIOUS SITES	\$4,622.00
<b>10072</b>	03/28/2019		<b>TRIMARK ASSOCIATES, INC.</b>	<b>\$1,726.67</b>
	Invoice	Date	Description	Amount
	100000599	03/04/2019	MAINT SVC-METRO SOLAR	\$1,726.67
<b>10073</b>	03/28/2019		<b>UNDERGROUND SERVICE ALERT OF S</b>	<b>\$34.75</b>
	Invoice	Date	Description	Amount
	220190156	03/01/2019	DIG ALERTS	\$34.75
<b>10074</b>	03/28/2019		<b>WALTERS WHOLESALE ELECTRIC CO</b>	<b>\$1,615.60</b>
	Invoice	Date	Description	Amount
	S112529288.001	02/25/2019	ELECTRICAL SUPPLIES-METRO SOLAR	\$1,615.60

Checks	Status	Count	Transaction Amount
	Total	13	\$84,882.69

*INDUSTRY PUBLIC UTILITIES COMMISSION*

ITEM NO. 5.2

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INDUSTRY PUBLIC UTILITIES COMMISSION  
REGULAR MEETING MINUTES  
CITY OF INDUSTRY, CALIFORNIA  
MARCH 14, 2019  
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**CALL TO ORDER**

The Regular Meeting of the Industry Public Utilities Commission of the City of Industry, California, was called to order by President Mark D. Radecki at 8:32 a.m., in the City of Industry Council Chamber, 15651 East Stafford Street, California.

**ROLL CALL**

PRESENT: Mark D. Radecki, President  
Abraham N. Cruz, Commissioner  
Newell W. Ruggles, Commissioner

ABSENT: Catherine Marcucci, Commissioner  
Cory C. Moss, Commissioner

STAFF PRESENT: Troy Helling, City Manager; Bing Hyun, Assistant City Manager; James M. Casso, City Attorney; and Julie Robles, Assistant Secretary.

Council Member Ruggles made a motion to excuse Mayor Pro Tem Moss and Council Member Marcucci from this meeting. Motion was second by Mayor Radecki.

**PUBLIC COMMENTS**

There were no public comments.

**CONSIDERATION OF THE REGISTER OF DEMANDS FOR FEBRUARY 28, 2019 AND MARCH 14, 2019**

MOTION BY COMMISSIONER RUGGLES, AND SECOND BY COMMISSIONER CRUZ TO APPROVE THE REGISTER OF DEMANDS AND AUTHORIZE THE APPROPRIATE CITY OFFICIALS TO PAY THE BILLS. MOTION CARRIED 3-0, BY THE FOLLOWING VOTE:

AYES:	COMMISSIONERS:	CRUZ, RUGGLES, RADECKI
NOES:	COMMISSIONERS:	NONE
ABSENT:	COMMISSIONERS:	MARCUCCI, MOSS
ABSTAIN:	COMMISSIONERS:	NONE

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INDUSTRY PUBLIC UTILITIES COMMISSION  
REGULAR MEETING MINUTES  
CITY OF INDUSTRY, CALIFORNIA  
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**CONSIDERATION OF THE MINUTES OF MARCH 22, 2018 SPECIAL MEETING, AUGUST 10, 2018 SPECIAL MEETING, AND FEBRUARY 14, 2019 REGULAR MEETING**

MOTION BY COMMISSIONER CRUZ, AND SECOND BY PRESIDENT RADECKI TO APPROVE THE MINUTES AS SUBMITTED. MOTION CARRIED 3-0, BY THE FOLLOWING VOTE:

AYES:	COMMISSIONERS:	CRUZ, RUGGLES, RADECKI
NOES:	COMMISSIONERS:	NONE
ABSENT:	COMMISSIONERS:	MARCUCCI, MOSS
ABSTAIN:	COMMISSIONERS:	NONE

**CONSIDERATION OF A PROFESSIONAL SERVICES AGREEMENT WITH WESTERN POWER PROJECT ADVISORS FOR ENGINEERING SUPPORT SERVICES RELATED TO SMART METERS**

Project Manager Sean Calvillo from CNC Engineering provided a staff report and was available to answer any questions.

MOTION BY COMMISSIONER CRUZ, AND SECOND BY COMMISSIONER RUGGLES TO APPROVE THE AGREEMENT. MOTION CARRIED 3-0, BY THE FOLLOWING VOTE:

AYES:	COMMISSIONERS:	CRUZ, RUGGLES, RADECKI
NOES:	COMMISSIONERS:	NONE
ABSENT:	COMMISSIONERS:	MARCUCCI, MOSS
ABSTAIN:	COMMISSIONERS:	NONE

**COMPREHENSIVE WATER RATE AND FEE STUDY FOR THE INDUSTRY PUBLIC UTILITES WATER SYSTEM**

General Manager Greg Galindo presented a report to the Commission and said that it had been four years since the last Rate and Fee Study was done.

City Manager Helling made note that the recommendation is to authorize the spending of the money for the Comprehensive Water Rate and Fee Study, not to approve the agreement, as stated on the agenda.

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INDUSTRY PUBLIC UTILITIES COMMISSION  
REGULAR MEETING MINUTES  
CITY OF INDUSTRY, CALIFORNIA  
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MOTION BY COMMISSIONER RUGGLES, AND SECOND BY COMMISSIONER CRUZ TO AUTHORIZE TO SPEND THE MONEY FOR THE RATE INCREASE STUDY. MOTION CARRIED 3-0, BY THE FOLLOWING VOTE:

AYES:	COMMISSIONERS:	CRUZ, RUGGLES, RADECKI
NOES:	COMMISSIONERS:	NONE
ABSENT:	COMMISSIONERS:	MARCUCCI, MOSS
ABSTAIN:	COMMISSIONERS:	NONE

**REPORT FROM LA PUENTE VALLEY COUNTY WATER DISTRICT'S GENERAL MANAGER ON INDUSTRY PUBLIC UTILITIES WATER OPERATIONS**

General Manager Greg Galindo presented a report to the Commission.

MOTION BY COMMISSIONER CRUZ, AND SECOND BY COMMISSIONER RUGGLES TO RECEIVE AND FILE THE REPORT. MOTION CARRIED 3-0, BY THE FOLLOWING VOTE:

AYES:	COMMISSIONERS:	CRUZ, RUGGLES, RADECKI
NOES:	COMMISSIONERS:	NONE
ABSENT:	COMMISSIONERS:	MARCUCCI, MOSS
ABSTAIN:	COMMISSIONERS:	NONE

**ADJOURNMENT**

There being no further business, the Industry Public Utilities Commission adjourned at 8:51 a.m.

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MARK D. RADECKI  
PRESIDENT

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JULIE ROBLES  
ASSISTANT SECRETARY

*INDUSTRY PUBLIC UTILITIES COMMISSION*

ITEM NO. 5.3





# INDUSTRY PUBLIC UTILITIES COMMISSION

## MEMORANDUM

TO: Honorable Chairman and Board Members

FROM: Troy Helling, City Manager *TH*

STAFF: Yamini Pathak, Director of Finance *YP*

DATE: March 28, 2019

SUBJECT: **Consideration to approve and adopt the IPUC-Electric FY 2018-2019 Mid-Year Budget Report and approve and adopt Resolution No. IPUC 2019-01, approving the FY 2018-2019 Mid-Year Budget Amendments**

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### **BACKGROUND:**

On June 28, 2018, the City Council ("Council") adopted the City's FY 2018-2019 ("FY 19") Operating Budget for its General Fund, and all its other funds and affiliated entities. Throughout a fiscal year, unanticipated revenues and expenditures may arise that could potentially impact the adopted budget and require budget amendments.

### **DISCUSSION:**

On June 28, 2018, the City Council adopted the City's FY 19 General Fund Operating Budget of \$47.2 million, supported by \$62.7 million in revenues. Since budget adoption, there have been changes to the adopted budget.

The FY 19 Mid-Year Budget Update will discuss changes to revenue and expenditures through the halfway point of the year and provide an overview of the FY 19 Proposed Budget Amendments.

### **Revenues:**

- **Fiduciary Funds**-The city will no longer assess property owners within Assessment District 91-1, the city currently has a \$2.3 million balance and will full-fill the bond payment of approximately \$1.4 million.

## **Expenditures:**

- **General Fund**-The City Council adopted an FY 19 Operating Budget of \$47.2 million for the General Fund. The proposed mid-year budget amendment reflects a decrease in general fund expenditures by \$6.6 million due to inflated budget assumptions; the overstated budget was primarily due to engineering support services that were budgeted in multiple accounts in the general fund. The proposed amendment will result in a General Fund Operating Budget of \$40.6 million for FY 19.
- **Capital Improvement Program**-In June 2018, the Council adopted a Capital Improvement Program ("CIP") budget of \$59.9 million; the proposed CIP budget amendment will decrease expenditures by \$34.7 million, several projects in the CIP program will be delayed until next year and will result in a CIP budget of \$25.2 million for FY 19.
- **IPUC Electric**-The proposed an increase of \$968,000 in the city's electric enterprise fund is primarily due to the understated adopted budget for professional and engineering services. The proposed increase will result in a City Electric budget of \$5.1 million.

## **Transfer In/Out:**

- **Industry Property Management and Housing Authority** -The inter-fund transfers (Out) have been increased by \$494,000 for board salaries and a one-time settlement payment for the National Core for professional services from our general funds.
- **Fleet Management**-A determination has been made that the city does not need a separate Internal Service Fund for Fleet Management, and the \$80,000 in the Fleet Management Fund will be transferred to the General Fund for future fleet purchases/expenses.

## **FISCAL IMPACT:**

By approving the FY 19 Proposed Budget Amendments, the City's Operating Budget Expenditures will decrease by \$6.6 million, the Capital Improvement Program will decrease by \$34.7 million, the City Electric Fund will increase by \$968,000, and Transfer In/Out will result in a total of \$414,000. The net effect of the proposed mid-year budget amendment will increase the city's projected fund balance by \$39,930,880.

**RECOMMENDED ACTION:**

Staff recommends that the City Council approve and adopt the FY19 Mid-Year Budget *Mid-Report*, and adopt Resolution No. IPUC 2019-01, hereby approving the Proposed FY19 Mid-Year Budget Amendments.

**ATTACHMENTS:**

1. Resolution IPUC 2019-01: Resolution Approving and Adopting FY 2018-2019 Proposed Mid-Year Budget Amendments
2. Exhibit A- Projected Fund Balance Fiscal Year 2018-2019
3. Exhibit B-Mid-Year Budget Update
4. Exhibit C-Revenue/Expenditure Summary
5. Exhibit D-Revenue/Expenditure Detail
6. Exhibit E-Transfer Schedule
7. Exhibit F-Capital Improvements Projects Detail

**RESOLUTION NO. IPUC 2019-01**

**A RESOLUTION OF THE INDUSTRY PUBLIC UTILITY COMMISSION OF THE CITY OF INDUSTRY, CALIFORNIA, APPROVING AND ADOPTING THE FISCAL YEAR 2018-2019 MID-YEAR BUDGET AMENDMENTS**

**WHEREAS**, On June 28, 2018, the City Council (“Council”) adopted the City’s FY 2018-2019 (“FY 19”) Operating Budget for its General Fund, and all its other funds and affiliated entities; and

**WHEREAS**, throughout a fiscal year, unanticipated revenues and expenditures may arise that could potentially impact the adopted budget and require budget amendments; and

**WHEREAS**, on March 28, 2019, the FY 19 Mid-Year Budget Report was presented to the Council and provided an update on the City’s fiscal performance through the mid-point of the fiscal year, from July 1, 2018, through December 31, 2018, comparing all revenues and expenditures to the same period in the prior fiscal year and against adopted budget levels; and

**WHEREAS**, the FY 19 Mid-Year Budget Report also presented an overview of the FY 19 Mid-Year Budget Amendments for Council’s consideration to approve and amend the FY 19 Adopted Budget.

**WHEREAS**, the IPUC’S FY 19 Mid-Year Budget is hereby incorporated into the City’s FY 19 Mid-Year Budget Amendments.

**NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF INDUSTRY, CALIFORNIA, DOES HEREBY RESOLVE AS FOLLOWS:**

**Section 1.** The above recitals are true and correct and are incorporated herein by reference.

**Section 2.** The City Council received a presentation on the FY 2018-19 Mid-Year Budget Report and hereby approves its receiving and filing.

**Section 3.** The City Council approves Resolution No. CC 2019-12, hereby approving the FY 19 Mid-Year Budget Amendments, attached to this resolution as Exhibit A, and therefore, amending the City’s FY 19 Adopted Budget.

**Section 4.** Contingent upon City Council approval, the IPUC’S Mid-Year Budget is hereby approved and incorporated into the City’s FY 19 Mid-Year Budget Amendments.

**Section 5.** The Secretary shall certify to the passage and adoption of this resolution and enter it into the book of original resolutions.

**Section 6.** This resolution shall be effective immediately.

**PASSED, APPROVED AND ADOPTED** by the Industry Public Utilities Commission at a special meeting held on March 28, 2019, by the following vote:

AYES: BOARD MEMBERS:

NOES: BOARD MEMBERS:

ABSTAIN: BOARD MEMBERS:

ABSENT: BOARD MEMBERS:

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Mark D. Radecki, President

**ATTEST:**

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Julie Gutierrez-Robles, Secretary

**CITY OF INDUSTRY  
PROJECTED FUND BALANCES  
MID-YEAR BUDGET UPDATE  
FISCAL YEAR 2018-2019**

							Exhibit A
		FUND BALANCE JUNE 30, 2018	PROPOSED AMENDED REVENUE BUDGET	PROPOSED AMENDED EXPENDITURES BUDGET	PROPOSED ADDITIONAL TRANSFERS IN	PROPOSED ADDITIONAL TRANSFERS OUT	PROJECTED FUND BALANCE JUNE 30, 2019
<b>GENERAL FUND</b>							
100	OPERATIONS	\$ 707,664,364	\$ 62,686,030	\$ (40,625,080)		\$ (414,000)	\$ 726,429,839
100	NON-OPERATING COSTS		-				(26,523,180)
		707,664,364	62,686,030	(40,625,080)	-	(414,000)	699,906,659
<b>SPECIAL REVENUE FUNDS</b>							
101	STATE GAS TAX	\$ 17,903	\$ 18,130	\$ (10,000)			\$ 26,033
102	MEASURE R	-	5,000.00	(5,000.00)			-
103	PROP A	2,050,966	10,000	(1,112,600)			948,366
104	PROP C	15,359	7,010	(10,000)			12,369
105	AIR QUALITY	471	-	-			471
106	MEASURE M	1,977	5,000	(5,000)			1,977
110	GRANT FUND	-	-	-			-
		\$ 2,086,675	\$ 45,140	\$ (1,142,600)	\$ -	\$ -	\$ 989,215
<b>INTERNAL SERVICES FUNDS</b>							
320	FLEET MANAGEMENT FUND	\$ -	-	-	\$ (80,000)		-
		\$ -	\$ -	\$ -	\$ (80,000)	\$ -	\$ -
<b>ENTERPRISE FUNDS</b>							
160	IPHMA	\$ 10,292,731	\$ 210,800	\$ (1,155,145)	\$ 494,000		\$ 10,292,731
161	CITY ELECTRIC	9,588,752	5,487,400	(5,057,845)			10,018,307
165	CITY ELECTRIC - CARB	578,714	-	-			578,714
360	CRIA	163,159	1,210	(591,985)			164,369
361	EXPO CENTER	6,592,195	1,980,930	(2,455,075)			6,592,195
560	IPUC - RECLAIMED WATER	9,980,196	1,355,000	(871,505)			10,463,691
561	IPUC - POTABLE WATER	1,270,557	2,056,750	(2,111,035)			1,216,273
		\$ 38,466,305	\$ 11,092,090	\$ (12,242,590)	\$ 494,000	\$ -	\$ 39,326,279
<b>CAPITAL IMPROVEMENTS FUND</b>							
120	CAPITAL IMPROVEMENTS	\$ 193,011,633	8,433,865	\$ (25,169,000)			\$ 177,641,498
		\$ 193,011,633	\$ 8,433,865	\$ (25,169,000)	\$ -	\$ -	\$ 177,641,498
<b>FIDUCIARY FUNDS</b>							
145	ASSESSMENT DISTRICT 91-1	\$ 2,780,971	-	\$ (509,400)			\$ 2,271,571
		\$ 2,780,971	\$ -	\$ (509,400)	\$ -	\$ -	\$ 2,271,571
<b>DEBT SERVICE</b>							
135	TAX OVERRIDE	\$ 2,870,715	50,466,200.00	\$ -			\$ 2,871,715
140	CITY OF INDUSTRY	69,311,546	13,538,000	(41,363,795)			67,928,931
440	IPFA	445,661,074	59,449,865	(108,477,365)			447,098,774
		\$ 517,843,335	\$ 123,454,065	\$ (149,841,160)	\$ -	\$ -	\$ 517,899,420
	PROJECTED ENDING FUND BALANCE	\$ 1,461,853,283	\$ 205,711,190	\$ (229,529,831)	\$ 414,000	\$ (414,000)	\$ 1,438,034,643

**CITY OF INDUSTRY  
MID-YEAR BUDGET UPDATE  
FISCAL YEAR 2018-2019**

**Exhibit B**

		ADOPTED REVENUES 2018- 2019	INCREASE (DECREASE)	PROPOSED MID- YEAR BUDGET UPDATE - TOTAL REVENUES	ADOPTED EXPENDITURES 2018-19	INCREASE (DECREASE)	PROPOSED MID- YEAR BUDGET UPDATE-TOTAL EXPENSES/ENDITURES	PROPOSED NET MID YEAR BUDGET UPDATE
<b>GENERAL FUND</b>								
100	OPERATIONS	62,686,030.00		62,686,030.00	(47,254,960.43)	6,629,880.00	(40,625,080.43)	22,060,949.57
100	NON-OPERATING COSTS				(1,622,740.00)		(1,622,740.00)	(1,622,740.00)
	<b>Total</b>	<b>62,686,030.00</b>	<b>-</b>	<b>62,686,030.00</b>	<b>(48,877,700.43)</b>	<b>6,629,880.00</b>	<b>(42,247,820.43)</b>	<b>20,438,209.57</b>
<b>SPECIAL REVENUE FUNDS</b>								
101	GAS TAX	18,130.00		18,130.00	(10,000.00)		(10,000.00)	8,130.00
102	MEASURE R	5,000.00		5,000.00	(5,000.00)		(5,000.00)	-
103	PROP A	10,000.00		10,000.00	(1,112,600.00)		(1,112,600.00)	(1,102,600.00)
104	PROP C	7,010.00		7,010.00	(10,000.00)		(10,000.00)	(2,990.00)
105	AIR QUALITY	-		-	-		-	-
106	MEASURE M	5,000.00		5,000.00	(5,000.00)		(5,000.00)	-
110	GRANT FUND	5,261,490.00		5,261,490.00	(5,261,490.00)		(5,261,490.00)	-
	<b>Total</b>	<b>5,306,630.00</b>	<b>-</b>	<b>5,306,630.00</b>	<b>(6,404,090.00)</b>	<b>-</b>	<b>(6,404,090.00)</b>	<b>(1,097,460.00)</b>
<b>INTERNAL SERVICES FUNDS</b>								
320	FLEET MANAGEMENT FUND	-		-	(80,000.00)	80,000.00	-	-
	<b>Total</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>(80,000.00)</b>	<b>80,000.00</b>	<b>-</b>	<b>-</b>
<b>ENTERPRISE FUNDS</b>								
160	IPHMA	210,800.00		210,800.00	(661,145.00)	(494,000.00)	(1,155,145.00)	(944,345.00)
161	CITY ELECTRIC	5,487,400.00		5,487,400.00	(4,089,845.00)	(968,000.00)	(5,057,845.00)	429,555.00
360	CRIA	1,210.00		1,210.00	(591,985.00)		(591,985.00)	(590,775.00)
361	EXPO CENTER	1,980,930.00		1,980,930.00	(2,455,075.00)		(2,455,075.00)	(474,145.00)
560	IPUC - RECLAIMED WATER	1,355,000.00		1,355,000.00	(871,505.40)		(871,505.40)	483,494.60
561	IPUC - POTABLE WATER	2,056,750.00		2,056,750.00	(2,111,034.94)		(2,111,034.94)	(54,284.94)
	<b>Total</b>	<b>11,092,090.00</b>	<b>-</b>	<b>11,092,090.00</b>	<b>(10,780,590.34)</b>	<b>(1,462,000.00)</b>	<b>(12,242,590.34)</b>	<b>(1,150,500.34)</b>
<b>CAPITAL IMPROVEMENTS FUND</b>								
120	CAPITAL IMPROVEMENTS	8,433,865.00		8,433,865.00	(59,852,000.00)	34,683,000.00	(25,169,000.00)	(16,735,135.00)
	<b>Total</b>	<b>8,433,865.00</b>	<b>-</b>	<b>8,433,865.00</b>	<b>(59,852,000.00)</b>	<b>34,683,000.00</b>	<b>(25,169,000.00)</b>	<b>(16,735,135.00)</b>
<b>FIDUCIARY FUNDS</b>								
145	ASSESSMENT DISTRICT 91-1	653,800.00	(653,800.00)	-	(509,400.00)		(509,400.00)	(509,400.00)
	<b>Total</b>	<b>653,800.00</b>	<b>(653,800.00)</b>	<b>-</b>	<b>(509,400.00)</b>	<b>-</b>	<b>(509,400.00)</b>	<b>(509,400.00)</b>
<b>DEBT SERVICE</b>								
135	TAX OVERRIDE	50,466,200.00		50,466,200.00	-		-	50,466,200.00
140	CITY OF INDUSTRY	13,538,000.00		13,538,000.00	(41,363,795.00)		(41,363,795.00)	(27,825,795.00)
440	IPFA	59,449,865.00		59,449,865.00	(108,477,364.92)		(108,477,364.92)	(49,027,499.92)
	<b>Total</b>	<b>123,454,065.00</b>	<b>-</b>	<b>123,454,065.00</b>	<b>(149,841,159.92)</b>	<b>-</b>	<b>(149,841,159.92)</b>	<b>(26,387,094.92)</b>
	<b>City Fund Balances</b>	<b>211,626,480.00</b>	<b>(653,800.00)</b>	<b>210,972,680.00</b>	<b>(276,344,940.69)</b>	<b>39,930,880.00</b>	<b>(236,414,060.69)</b>	<b>(25,441,380.69)</b>

**CITY OF INDUSTRY  
MID-YEAR BUDGET UPDATE  
FISCAL YEAR 2018-2019**

**Exhibit B**

		ADOPTED TRANSFERS IN FROM OTHER FUNDS	PROPOSD ADDITIONAL TRANSFERS IN	PROPOSED MID- YEAR UPDATE TRANSFERS IN FROM OTHER FUNDS	ADOPTED TRANSFERS OUT FROM OTHER FUNDS	PROPOSD ADDITIONAL TRANSFERS OUT	PROPOSED MID- YEAR UPDATE TRANSFERSOUT FROM OTHER FUNDS	PROPOSED NET TRANSFERS MID YEAR BUDGET UPDATE	PROPOSED NET MID YEAR BUDGET UPDATE
<b>GENERAL FUND</b>									
100	OPERATIONS	-	-	-	(2,881,475.00)	(414,000.00)	(3,295,475.00)	(3,295,475.00)	18,765,474.57
100	NON-OPERATING COSTS	-	-	-	(26,523,180.00)	-	(26,523,180.00)	(26,523,180.00)	(28,145,920.00)
	<b>Total</b>	-	-	-	(29,404,655.00)	(414,000.00)	(29,818,655.00)	(29,818,655.00)	(9,380,445.43)
<b>SPECIAL REVENUE FUNDS</b>									
101	GAS TAX	-	-	-	-	-	-	-	8,130.00
102	MEASURE R	-	-	-	-	-	-	-	-
103	PROP A	-	-	-	-	-	-	-	(1,102,600.00)
104	PROP C	-	-	-	-	-	-	-	(2,990.00)
105	AIR QUALITY	-	-	-	-	-	-	-	-
106	MEASURE M	-	-	-	-	-	-	-	-
110	GRANT FUND	-	-	-	-	-	-	-	-
	<b>Total</b>	-	-	-	-	-	-	-	(1,097,460.00)
<b>INTERNAL SERVICES FUNDS</b>									
320	FLEET MANAGEMENT FUND	80,000.00	(80,000.00)	-	-	-	-	-	-
	<b>Total</b>	80,000.00	(80,000.00)	-	-	-	-	-	-
<b>ENTERPRISE FUNDS</b>									
160	IPHMA	450,345.00	494,000.00	944,345.00	-	-	-	944,345.00	-
161	CITY ELECTRIC	-	-	-	-	-	-	-	429,555.00
360	CRIA	1,066,130.00	-	1,066,130.00	(474,145.00)	-	(474,145.00)	591,985.00	1,210.00
361	EXPO CENTER	474,145.00	-	474,145.00	-	-	-	474,145.00	-
560	IPUC - RECLAIMED WATER	-	-	-	-	-	-	-	483,494.60
561	IPUC - POTABLE WATER	-	-	-	-	-	-	-	(54,284.94)
	<b>Total</b>	1,990,620.00	494,000.00	2,484,620.00	(474,145.00)	-	(474,145.00)	2,010,475.00	859,974.66
<b>CAPITAL IMPROVEMENTS FUND</b>									
120	CAPITAL IMPROVEMENTS	1,365,000.00	-	1,365,000.00	-	-	-	1,365,000.00	(15,370,135.00)
	<b>Total</b>	1,365,000.00	-	1,365,000.00	-	-	-	1,365,000.00	(15,370,135.00)
<b>FIDUCIARY FUNDS</b>									
145	ASSESSMENT DISTRICT 91-1	-	-	-	-	-	-	-	(509,400.00)
	<b>Total</b>	-	-	-	-	-	-	-	(509,400.00)
<b>DEBT SERVICE</b>									
135	TAX OVERRIDE	-	-	-	(50,465,200.00)	-	(50,465,200.00)	(50,465,200.00)	1,000.00
140	CITY OF INDUSTRY	26,443,180.00	-	26,443,180.00	-	-	-	26,443,180.00	(1,382,615.00)
440	IPFA	50,465,200.00	-	50,465,200.00	-	-	-	50,465,200.00	1,437,700.08
	<b>Total</b>	76,908,380.00	-	76,908,380.00	(50,465,200.00)	-	(50,465,200.00)	26,443,180.00	56,085.08
	<b>City Fund Balances</b>	80,344,000.00	414,000.00	80,758,000.00	(80,344,000.00)	(414,000.00)	(80,758,000.00)	-	(25,441,380.69)



**CITY OF INDUSTRY  
MID-YEAR BUDGET UPDATE  
REVENUE/EXPENDITURE SUMMARY  
FISCAL YEAR 2018-2019**

						Exhibit C
FUND	CATEGORY	DEPARTMENT	ADOPTED BUDGET 2018-2019	MID-YEAR BUDGET AMENDMENT 2018-2019	PROPOSED AMENDED BUDGET 2018-2019	
<b>REVENUE</b>						
145	91-1 ASSESSMENT					
	PROPERTY TAX ASSESSMENT		638,000.00	(638,000.00)	-	
		<b>TOTAL DIRECT ASSESSMENT DEBT SERVICES</b>	<b>638,000.00</b>	<b>(638,000.00)</b>	<b>-</b>	
<b>EXPENSES</b>						
100	GENERAL FUND					
	ADMINISTRATIVE	CITY COUNCIL	381,940.00	(25,000.00)	356,940.00	
		CITY CLERK	404,105.00	(127,490.00)	276,615.00	
		CITY MANAGER	998,155.00	59,030.00	1,057,185.00	
		CENTRAL SERVICES	1,720,900.00	83,200.00	1,804,100.00	
		HUMAN RESOURCES	673,655.00	19,100.00	692,755.00	
		CITY ATTORNEY/LEGAL	1,570,000.00	20,000.00	1,590,000.00	
		LEGISLATIVE SERVICES	145,000.00	-	145,000.00	
	FINANCIAL SERVICES	CITY TREASURER	1,195,710.00	(542,120.00)	653,590.00	
		FINANCE	1,307,195.00	351,800.00	1,658,995.00	
		INFORMATION TECHNOLOGY	1,444,760.00	(580,200.00)	864,560.00	
	COMMUNITY SUPPORT & REGIONAL IMPROVEMENTS	COMMUNITY PROMOTIONS & ECONOMIC DEVELOPMENT	1,685,000.00	-	1,685,000.00	
		EL ENCANTO	335,100.00	-	335,100.00	
		WORKMAN TEMPLE HOMESTEAD	1,778,900.00	46,000.00	1,824,900.00	
	DEVELOPMENT SERVICES	PLANNING	1,302,890.00	282,000.00	1,584,890.00	
		DEVELOPMENT SERVICES	2,425,415.00	(1,744,000.00)	681,415.00	
		FIELD OPERATIONS	809,660.00	(263,000.00)	546,660.00	
		PUBLIC SAFETY	10,620,975.00	(24,200.00)	10,596,775.00	
		PUBLIC WORKS	4,630,000.00	(2,098,000.00)	2,532,000.00	
		STREETS AND ROADS	3,250,000.00	(786,000.00)	2,464,000.00	
		OTHER CONTRATED SERVICES	4,960,000.00	(1,000,000.00)	3,960,000.00	
		CIVIC FINANCIAL CENTER	4,233,000.00	(323,000.00)	3,910,000.00	
		INDUSTRY HILLS MAINTENANCE	372,000.00	22,000.00	394,000.00	
		HABIAT AND OPEN SPACE	1,010,600.00	-	1,010,600.00	
		<b>GENERAL FUND-TOTAL EXPENDITURES</b>	<b>\$ 47,254,960.00</b>	<b>\$ (6,629,880.00)</b>	<b>\$ 40,625,080.00</b>	
	ENTERPRISE FUNDS					
160		IPHMA	661,145.00	494,000.00	1,155,145.00	
161		IPUC ELECTRIC	4,089,845.00	968,000.00	5,057,845.00	
		<b>ENTERPRISE FUND-TOTAL EXPENDITURES</b>	<b>\$ 4,750,990.00</b>	<b>\$ 1,462,000.00</b>	<b>\$ 6,212,990.00</b>	
120	CAPITAL IMPROVEMENTS FUNDS	<b>CITY CAPITAL IMPROVEMENTS-TOTAL EXPENDITURES</b>	<b>\$ 59,900,000.00</b>	<b>\$ (34,683,000.00)</b>	<b>\$ 25,217,000.00</b>	
320	FLEET MANAGEMENT FUND		\$ 80,000.00	\$ (80,000.00)	-	
			\$ 80,000.00	\$ (80,000.00)	\$ -	
		<b>TOTAL EXPENDITURES</b>	<b>\$ 111,985,950.00</b>	<b>\$ (39,930,880.00)</b>	<b>\$ 72,055,070.00</b>	

**CITY OF INDUSTRY  
MID-YEAR BUDGET UPDATE  
REVENUE/EXPENDITURE DETAIL  
FISCAL YEAR 2018-2019**

**Exhibit D**

ACCOUNT	ACCOUNT DESCRIPTION	ADOPTED BUDGET 2018-2019	MID-YEAR BUDGET AMENDMENT 2018-2019	PROPOSED AMENDED BUDGET 2018-2019
<b>Revenue</b>				
145-91-1 ASSESSMENT				
4026	<b>Property Tax Assessment</b>	638,000.00	(638,000.00)	-
		<u>638,000.00</u>	<u>(638,000.00)</u>	<u>-</u>
<b>Expenses</b>				
<b>100-GENERAL FUNDS</b>				
<b>ADMINISTRATIVE</b>				
501-CITY COUNCIL				
5610	Travel and Meetings	50,000.00	(25,000.00)	25,000.00
		50,000.00	(25,000.00)	25,000.00
502-CITY CLERK				
5001	Salaries	195,780.00	(107,490.00)	88,290.00
5120.01	Professional Services	20,000.00	(20,000.00)	-
		215,780.00	(127,490.00)	88,290.00
503-CITY MANAGER				
5001	Salaries	508,965.00	59,030.00	567,995.00
		508,965.00	59,030.00	567,995.00
507-CENTRAL SERVICES				
5021	Dues and Subscriptions	2,350.00	4,700.00	7,050.00
5620	Vehicle Expenses	-	8,500.00	8,500.00
5900	General Engineering	-	40,000.00	40,000.00
6085	Parking Citations	-	30,000.00	30,000.00
		2,350.00	83,200.00	85,550.00
508-HUMAN RESOURCES				
5001	Salaries	89,880.00	(5,900.00)	83,980.00
5120.02	Legal Services	-	25,000.00	25,000.00
		89,880.00	19,100.00	108,980.00
520-CITY ATTORNEY/LEGAL				

CITY OF INDUSTRY				
MID-YEAR BUDGET UPDATE				
REVENUE/EXPENDITURE DETAIL				
FISCAL YEAR 2018-2019				
				Exhibit D
ACCOUNT	ACCOUNT DESCRIPTION	ADOPTED BUDGET 2018-2019	MID-YEAR BUDGET AMENDMENT 2018-2019	PROPOSED AMENDED BUDGET 2018-2019
5120.01	Professional Services	110,000.00	(80,000.00)	30,000.00
5120.02	Legal Services	1,450,000.00	100,000.00	1,550,000.00
		1,560,000.00	20,000.00	1,580,000.00
	528-LEGISLATIVE SERVICES	145,000.00	-	145,000.00
		145,000.00	-	145,000.00
	<b>FINANCIAL SERVICES</b>			
	505-CITY TREASURER			
5001	Salaries	244,380.00	(83,620.00)	160,760.00
5120.01	Professional Services	720,000.00	(458,500.00)	261,500.00
		964,380.00	(542,120.00)	422,260.00
	506-FINANCE			
5001	Salaries	680,720.00	(178,200.00)	502,520.00
5120.01	Professional Services	170,000.00	530,000.00	700,000.00
		850,720.00	351,800.00	1,202,520.00
	525-INFORMATION TECHNOLOGY			
5001	Salaries	113,340.00	(38,400.00)	74,940.00
5120.01	Professional Services	950,000.00	(700,000.00)	250,000.00
5695.01	Computer Services	55,000.00	187,200.00	242,200.00
5695.02	Computer Equipment	50,000.00	(20,000.00)	30,000.00
5695.04	Computer Software	10,000.00	(9,000.00)	1,000.00
		1,178,340.00	(580,200.00)	598,140.00
	<b>COMMUNITY SUPPORT &amp; REGIONAL IMPROVEMENTS</b>			
	621-COMMUNITY PROMOTIONS & ECONOMIC DEVELOPMENT	1,685,000.00	-	1,685,000.00
		1,685,000.00	-	1,685,000.00
	620-EL ENCANTO	335,100.00	-	335,100.00
		335,100.00	-	335,100.00
	626-WORKMAN TEMPLE HOMESTEAD			

**CITY OF INDUSTRY  
MID-YEAR BUDGET UPDATE  
REVENUE/EXPENDITURE DETAIL  
FISCAL YEAR 2018-2019**

**Exhibit D**

ACCOUNT	ACCOUNT DESCRIPTION	ADOPTED BUDGET 2018-2019	MID-YEAR BUDGET AMENDMENT 2018-2019	PROPOSED AMENDED BUDGET 2018-2019
5900	General Engineering	6,000.00	46,000.00	52,000.00
		6,000.00	46,000.00	52,000.00
	<b>DEVELOPMENT SERVICES</b>			
	521-Planning			
5001	Salaries	188,760.00	(118,000.00)	70,760.00
5120.01	Professional Services	715,000.00	400,000.00	1,115,000.00
		903,760.00	282,000.00	1,185,760.00
	526-DEVELOPMENT SERVICES			
5001	Salaries	224,775.00	(136,000.00)	88,775.00
5560	Equipment Rental	-	8,000.00	8,000.00
5900	General Engineering	1,625,000.00	(1,616,000.00)	9,000.00
		1,849,775.00	(1,744,000.00)	105,775.00
	527-FIELD OPERATIONS			
5001	Salaries	223,560.00	(122,600.00)	100,960.00
5120.01	Professional Services	360,000.00	(140,400.00)	219,600.00
		583,560.00	(263,000.00)	320,560.00
	601-PUBLIC SAFETY			
5001.02	Salaries-Part-time	115,860.00	(24,200.00)	91,660.00
		115,860.00	(24,200.00)	91,660.00
	622-PUBLIC WORKS			
5900	General Engineering	3,930,000.00	(1,448,000.00)	2,482,000.00
7030	Storm Water Compliance/NPDES	650,000.00	(650,000.00)	-
		4,580,000.00	(2,098,000.00)	2,482,000.00
	623-Streets and Roads			
5130	Planning Survey and Design	50,000.00	(50,000.00)	-
5640	Advertising and Printing	25,000.00	(25,000.00)	-

**CITY OF INDUSTRY  
MID-YEAR BUDGET UPDATE  
REVENUE/EXPENDITURE DETAIL  
FISCAL YEAR 2018-2019**

**Exhibit D**

ACCOUNT	ACCOUNT DESCRIPTION	ADOPTED BUDGET 2018-2019	MID-YEAR BUDGET AMENDMENT 2018-2019	PROPOSED AMENDED BUDGET 2018-2019
5900	General Engineering	1,300,000.00	(257,000.00)	1,043,000.00
7020	Storm Drains	230,000.00	(230,000.00)	-
7060	Sewers	40,000.00	(40,000.00)	-
7210	Street Light Repairs	300,000.00	(200,000.00)	100,000.00
7240	Traffic Striping	100,000.00	(50,000.00)	50,000.00
7260	Bridge Maintenance	50,000.00	(50,000.00)	-
7280	Highway Safety Lighting Maintenance	20,000.00	44,000.00	64,000.00
7290.01	Accident Repair/Traffic	75,000.00	72,000.00	147,000.00
		2,190,000.00	(786,000.00)	1,404,000.00
	624-Other Contracted Services			
7410	Public ROW (Right of Way) Maintenance	3,460,000.00	(1,000,000.00)	2,460,000.00
		3,460,000.00	(1,000,000.00)	2,460,000.00
	625-Civic Financial Center Expenses			
5120.02	Legal Services	100,000.00	(70,000.00)	30,000.00
5130	Planning Survey and Design	-	198,000.00	198,000.00
5562	Office Equipment and Furniture	20,000.00	(15,000.00)	5,000.00
5792	Resource Planning	6,000.00	12,000.00	18,000.00
5900	General Engineering	450,000.00	(448,000.00)	2,000.00
		576,000.00	(323,000.00)	253,000.00
	627-Industry Hills Maintenance			
5550	Repair and Maintenance Equipment	3,000.00	7,000.00	10,000.00
5565	Small Equipment and Supplies	5,000.00	15,000.00	20,000.00
		8,000.00	22,000.00	30,000.00
	628-Habitat and Open Space	1,010,600.00	-	1,010,600.00
		1,010,600.00	-	1,010,600.00
	<b>FUND-100 TOTAL ADJUSTED BUDGET EXPENDITURES</b>	<b>\$ 22,869,070.00</b>	<b>\$ (6,629,880.00)</b>	<b>\$ 16,239,190.00</b>

CITY OF INDUSTRY				
MID-YEAR BUDGET UPDATE				
REVENUE/EXPENDITURE DETAIL				
FISCAL YEAR 2018-2019				
				Exhibit D
ACCOUNT	ACCOUNT DESCRIPTION	ADOPTED BUDGET 2018-2019	MID-YEAR BUDGET AMENDMENT 2018-2019	PROPOSED AMENDED BUDGET 2018-2019
<b>ENTERPRISE FUNDS</b>				
<b>160-INDUSTRY PROPERTY AND HOUSING</b>				
5001	Salaries	-	33,000.00	33,000.00
5025	Miscellaneous	-	26,000.00	26,000.00
5120.01	Professional Services	-	435,000.00	435,000.00
		-	494,000.00	494,000.00
<b>161-CITY ELECTRIC</b>				
5013	Telephone	12,000.00	27,000.00	39,000.00
5060.01	Special Taxes and Fees-Electric	-	79,000.00	79,000.00
5120.01	Professional Services	170,000.00	286,000.00	456,000.00
5695.01	Computer Services	-	11,000.00	11,000.00
5900	General Engineering	60,000.00	565,000.00	625,000.00
		242,000.00	968,000.00	1,210,000.00
		<b>\$ 242,000.00</b>	<b>\$ 1,462,000.00</b>	<b>\$ 1,704,000.00</b>
<b>120-CAPITAL IMPROVEMENTS FUNDS</b>		<b>\$ 59,900,000.00</b>	<b>\$ (34,683,000.00)</b>	<b>\$ 25,217,000.00</b>
<b>320-FLEET MANAGEMENT FUND</b>		<b>\$ 80,000.00</b>	<b>\$ (80,000.00)</b>	<b>\$ -</b>
		<b>\$ 80,000.00</b>	<b>\$ (80,000.00)</b>	<b>\$ -</b>
		<b>\$ 83,729,070.00</b>	<b>\$ (40,568,880.00)</b>	<b>\$ 43,160,190.00</b>

**City of Industry  
Transfer Schedule  
Mid-Year Budget Update  
Fiscal Year 2018-2019**

							<b>Exhibit E</b>
Fund	Account	Description	Transfer In	Transfer Out	Mid Year Budget Adjustment		
100	9800.14	General Fund - Debt Services		26,443,180.00			
100	9800.95	General Fund - Fleet		80,000.00		(80,000.00)	
100	9800.35	General Fund - Housing		450,345.00		494,000.00	
100	9800.34	General Fund - CRIA Admin		591,985.00			
100	9800.34	General Fund - CRIA-Expo		474,145.00			
100	9800.05	General Fund - CIPs		1,365,000.00			
140	4800.14	City Debt Services	26,443,180.00				
320	4800.95	Fleet Management	80,000.00			(80,000.00)	
160	4800.35	IPHMA	450,345.00			494,000.00	
360	4800.34	CRIA	1,066,130.00				
360	9800.44	CRIA		474,145.00			
361	4800.44	EXPO Center	474,145.00				
120	4800.05	CIP	1,365,000.00				
135	9800.72	Tax Override		50,465,200.00			
440	4800.72	IPFA	50,465,200.00				
			80,344,000.00	80,344,000.00		-	

City of Industry				
Mid-Year Budget Update				
Capital Improvement Program				
Fiscal Year 2018-2019				
				Exhibit F
	Project Name	Adopted Budget 2018-2019	Mid-Year Budget Amendment 2018- 2019	Proposed Amended Budget 2018-2019
<b>1. Grade Separations</b>				
A	Nogales Street Grade Separation (near Gale Avenue/Walnut Drive North)	75,000	\$ 25,000	50,000
B	Fullerton Road Grade Separation (near Railroad Street and Gale Avenue)	1,760,000	\$ 150,000	1,610,000
C	Fairway Drive Grade Separation (near Walnut Drive North)	3,460,000	\$ 3,460,000	-
D	Puente Avenue Grade Separation at UPRR's Alhambra Subdivision tracks (near Valley Boulevard)	75,000	\$ 50,000	25,000
E	Fairway Drive Grade Separation at UPRR's Alhambra Subdivision tracks (near Valley Boulevard)	20,000	\$ 5,000	15,000
F	Turnbull Canyon Road Grade Separation at UPRR's L.A. Subdivision tracks (near Salt Lake Avenue)	150,000	\$ 150,000	-
		<b>5,540,000</b>	<b>\$ 3,840,000</b>	<b>1,700,000</b>
<b>2. Street Widening, Reconstruction, Resurfacing, and Slurry Seal</b>				
A	Workman Mill Road Resurfacing and Street Lighting - Oakman Drive to Valley Boulevard (co-op project with L.A. County)	694,000	\$ 5,000	689,000
B	Colima Road Widening and Intersection Modifications from Stoner Creek Road to Azusa Avenue (co-op project with L.A. County)	10,000	\$ 5,000	5,000
C	Walnut Drive South Street Widening and Storm Drain Improvements	1,980,000	\$ 900,000	1,080,000
D	Annual Slurry Seal Project FY 19	300,000	\$ 300,000	-
E	Valley Boulevard resurfacing, Azusa Way to 500' east of Hambledon Avenue	685,000	\$ 50,000	635,000
F	Crossroads Parkway South Reconstruction or Replacement with PCC Pavement (from the north side of the bridge over the Pomona Freeway to Crossroads Parkway North)	100,000	\$ 10,000	90,000



City of Industry				
Mid-Year Budget Update				
Capital Improvement Program				
Fiscal Year 2018-2019				
				Exhibit F
	Project Name	Adopted Budget 2018-2019	Mid-Year Budget Amendment 2018- 2019	Proposed Amended Budget 2018-2019
G	Bonelli Street reconstruction and resurfacing MP 13-03	530,000	\$ 50,000	480,000
H	Don Julian Road & Unruh Ave. Resurfacing, 6th Avenue to 7th Avenue & Don Julian/6th Avenue Traffic Signal	1,000,000	\$ 200,000	800,000
I	San Jose Avenue Reconstruction (500' west of Nogales Street to 400' west of Charlie Road)	1,750,000	\$ 200,000	1,550,000
J	Arenth Avenue Reconstruction from Fullerton Road to Nogales Street	3,990,000	\$ 500,000	3,490,000
K	Reconstruct Portions of Bixby Drive and Chestnut Street (near the peaker plant)	685,000	\$ 30,000	655,000
L	Coiner Court Reconstruction and Resurfacing	185,000	\$ 20,000	165,000
M	6th Avenue Reconstruction from Lomitas Avenue to Valley Boulevard (co-op with L.A. County)	630,000	\$ 60,000	570,000
N	Pellissier Place Reconstruction and Resurfacing, Peck Road to Workman Mill Road	10,000	\$ -	10,000
O	Louden Lane Resurfacing	135,000	\$ 20,000	115,000
P	Stafford Street Resurfacing from Unruh Avenue to Hudson Avenue	-	\$ -	-
Q	Stoner Creek Road Reconstruction from Gale Avenue to Castleton Street, and Gale Avenue (east bound right turn lane including sidewalk, landscaping and embankment pavers at the bridge under the Pomona Freeway)	-	\$ -	-
R	Rowland Avenue Reconstruction, Lawson Avenue to 800' west of Ajax Avenue	1,000,000	\$ 100,000	900,000
S	Lemon Avenue Improvements	1,000,000	\$ 3,800,000	(2,800,000)
T	Clark Avenue & 9th Avenue	105,000	\$ 50,000	55,000

City of Industry				
Mid-Year Budget Update				
Capital Improvement Program				
Fiscal Year 2018-2019				
				Exhibit F
	Project Name	Adopted Budget 2018-2019	Mid-Year Budget Amendment 2018- 2019	Proposed Amended Budget 2018-2019
U	Citywide Street Curb & Median Re-Painting	15,000	\$ 260,000	(245,000)
	Valley Boulevard PCC Pavement, Hacienda Boulevard to Turnbull Canyon Road	-	\$ -	-
	Baldwin Park Blvd. & Amar Road Guardrail & Intersection Improvements	-	\$ -	-
V	Valley Blvd - Old Valley to Azusa	200,000	\$ 100,000	100,000
W	Walnut Drive North Widening, Fairway to Nogales	600,000	\$ 100,000	500,000
X	East Gale Avenue (AutoMall)	75,000	\$ -	75,000
Y	Annual Bustop ADA Improvements	525,000	\$ 75,000	450,000
Z	Fullerton Road PCC, Rowland to Valley	400,000	\$ 120,000	280,000
AA	Business Parkway Reconstruction	200,000	\$ 200,000	-
AB	Annual Pavement Rehabilitation FY 19	1,300,000	\$ 1,300,000	-
AC	Citywide Sign Replacement	695,000	\$ 695,000	-
AD	Gale Avenue Realignment	300,000	\$ 60,000	240,000
AE	Fairway Grade Separation Streetlight project	160,000	\$ 20,000	140,000
AF	Auto Mall Car Dealership Alley Improvements	80,000	\$ 70,000	10,000
	Preliminary Design of E-W Bicycle Path		\$ 40,000	(40,000)
	-	<b>19,339,000</b>	<b>\$ 9,340,000</b>	<b>9,999,000</b>

City of Industry				
Mid-Year Budget Update				
Capital Improvement Program				
Fiscal Year 2018-2019				
				Exhibit F
	Project Name	Adopted Budget 2018-2019	Mid-Year Budget Amendment 2018- 2019	Proposed Amended Budget 2018-2019
<b>3. Bridge Widening, Seismic Retrofit, and Preventative Maintenance</b>				
A	Azusa Avenue Bridge Painting (bridge spans over Valley Boulevard, UPRR R/W, San Jose Creek and Chestnut Street)	7,360,000	\$ 50,000	7,310,000
B	Grand Avenue Bridge Widening at San Jose Creek	320,000	\$ 150,000	170,000
C	Seismic Retrofit Anaheim-Puente Over San Jose Creek	370,000	\$ 10,000	360,000
D	Nelson Avenue Over Puente Creek	420,000	\$ 10,000	410,000
	Bridge Rehabilitaion - Valley Boulevard over Old Valley		\$ 100,000	(100,000)
		<b>8,470,000</b>	<b>\$ 320,000</b>	<b>8,150,000</b>
<b>4. Traffic Signal and Traffic Related Improvements</b>				
	Don Julian Road and 6th Avenue Traffic Signal and Intersection Modifications (new signal; includes R/W)	-	\$ -	-
A	Traffic Signal and Intersection Modifications at Nelson Avenue and Sunset Avenue (to add left turn pockets on Nelson Avenue; shared with La Puente)	1,000,000	\$ 250,000	750,000
B	Traffic Signal and Intersection Modifications at Nelson Avenue and Puente Avenue (to add left turn pockets on Nelson Avenue; shared with La Puente and L.A. County)	1,000,000	\$ 250,000	750,000
C	Azusa Avenue and Temple Avenue Intersection Modifications (for dual right turn lanes for eastbound Temple Avenue to southbound Azusa Avenue)	950,000	\$ 50,000	900,000
		<b>2,950,000</b>	<b>\$ 550,000</b>	<b>2,400,000</b>
<b>5. Storm Drain &amp; Stormwater Improvements</b>				
A	Ajax Avenue Storm Drain	325,000	\$ 360,000	(35,000)
	Grade Separation Pump House Upgrades	-	\$ -	-

City of Industry				
Mid-Year Budget Update				
Capital Improvement Program				
Fiscal Year 2018-2019				
				Exhibit F
	Project Name	Adopted Budget 2018-2019	Mid-Year Budget Amendment 2018- 2019	Proposed Amended Budget 2018-2019
B	Regional Infiltration Basin - MS4 Requirement (San Angelo Park)	150,000	\$ 30,000	120,000
C	Catch Basin Retrofits Phase I - MS4 Requirement	200,000	\$ 25,000	175,000
D	Multi-Benefit Stormwater Capture Projects for USGR EWMP (30% design)	175,000	\$ 200,000	(25,000)
	City of Industry Stormwater Capture Project	-	\$ -	-
E	Four Grade Separation Pump House Upgrades	1,730,000	\$ 25,000	1,705,000
F	Catch Basin Retrofits Phase II - MS4 Requirement	1,300,000	\$ 100,000	1,200,000
G	Kella Avenue Storm Drain	150,000	\$ 60,000	90,000
		<b>4,030,000</b>	<b>\$ 800,000</b>	<b>3,230,000</b>
<b>6. IPUC - Water Utility</b>				
A	Starhill Lane & 3rd Avenue Waterline Improvements	545,000	\$ 60,000	485,000
B	4th Avenue & Trailside Waterline Improvements	647,500	\$ 60,000	587,500
C	Don Julian & basetdale Waterline Improvements	270,000	\$ 40,000	230,000
D	Lomitas Generator	338,000	\$ 10,000	328,000
		<b>1,800,500</b>	<b>\$ 170,000</b>	<b>1,630,500</b>
<b>7. IPUC - Electric Utility</b>				
A	Electric Vehicle ("EV") Pay for Use Charging Stations at the Metrolink	385,000	\$ 385,000	-
B	Azusa-Chestnut Development (Distribution lines & service connections)	30,000	\$ 10,000	20,000
C	City Streelights Purchase & LED upgrade	3,230,000	\$ 3,230,000	-
D	IBC East Side Street Light, Cabling, & Fiber Optic Substructure Plan (PUI)	155,000	\$ 20,000	135,000
E	Grand Crossing Substation - Phase 1,2,3 Substructure & Cabling (PUI)	-	\$ -	-

City of Industry				
Mid-Year Budget Update				
Capital Improvement Program				
Fiscal Year 2018-2019				
				Exhibit F
	Project Name	Adopted Budget 2018-2019	Mid-Year Budget Amendment 2018- 2019	Proposed Amended Budget 2018-2019
F	Metrolink Station Video Security System, Installation & Commission Services	98,000	\$ 115,000	(17,000)
G	Expansion of Solar Energy System at Metrolink Station	200,000	\$ 100,000	100,000
	Street lights on Amar Road, Aileron Ave to Echelon Ave		\$ 50,000	(50,000)
		<b>4,098,000</b>	<b>\$ 3,910,000</b>	<b>188,000</b>
<b>8. Expo Center at Industry Hills</b>				
	Sewer Main Replacement, Realignment, Installation of PVC Lining Repairs and Adjustment of Manholes, at various locations throughout the complex	-	\$ -	-
A	Sewer Design - Expo Center Sewer Main Replacement	640,000	\$ 110,000	530,000
B	Painting the Grand Arena	1,200,000	\$ 1,200,000	-
C	Parking Lot Improvements	1,580,000	\$ 600,000	980,000
D	Pavillion Building Upgrades	-	\$ -	-
E	Avalon Room	1,600,000	\$ 100,000	1,500,000
F	Patio Café Improvements	2,625,000	\$ 125,000	2,500,000
G	Expo Center Gate Entrance Improvements	295,000	\$ 270,000	25,000
H	Grand Arena Building Improvements	-	\$ -	-
	Design Build Services for Solar Carport Canopy Power Generation System at City Hall	-	\$ -	-
I	Expo Barn Facilities Lighting Design & Specification Services	155,000	\$ 155,000	-
J	Industry Hills Trail Grading Improvements Design	440,000	\$ 200,000	240,000
K	Industry Hills Trail Lighting Design	800,000	\$ 800,000	-
		<b>9,335,000</b>	<b>\$ 3,560,000</b>	<b>5,775,000</b>
<b>9. Industry Hills Golf &amp; Convention Facilities</b>				

City of Industry				
Mid-Year Budget Update				
Capital Improvement Program				
Fiscal Year 2018-2019				
				Exhibit F
	Project Name	Adopted Budget 2018-2019	Mid-Year Budget Amendment 2018- 2019	Proposed Amended Budget 2018-2019
A	Repair settlement damage at the parking structure and adjacent employee parking area, including repairs of the perimeter parking lot lighting	375,000	\$ 60,000	315,000
B	Repair settlement damage at the laundry building	375,000	\$ 50,000	325,000
		<b>750,000</b>	<b>\$ 110,000</b>	<b>640,000</b>
<b>10. Open Spaces/Tonner Canyon/Tres Hermanos</b>				
A	Replacement of Steel Waterline Crossing over Brea Creek (\$175,000) and Upgrades of the Booster Pump Station at Brea Canyon Road (\$40,000) (Just East of the 57 Fwy)	325,000	\$ 10,000	315,000
B	Replacement of Water Lines and Valves	340,000	\$ 10,000	330,000
C	Follows Camp	350,000	\$ 150,000	200,000
D	Arnold Reservoir Rip Rap	350,000	\$ 100,000	250,000
		<b>1,365,000</b>	<b>\$ 270,000</b>	<b>1,095,000</b>
<b>11. Civic Center Facilities</b>				
A	City Hall Emergency Standby Power Generator	305,000	\$ 470,000	(165,000)
B	Design Build Services for Solar Carport Canopy Power Generation System at City Hall	430,000	\$ 550,000	(120,000)
C	LED Lighting Upgrade & Water Closet Replacement	-	\$ -	-
D	City Hall Signage & Painting	130,000	\$ 50,000	80,000
	City Hall Roof Replacement		\$ 200,000	(200,000)
	Civic Financial Center Landscaping Improvements		\$ 50,000	(50,000)
		<b>865,000</b>	<b>\$ 1,320,000</b>	<b>(455,000)</b>

City of Industry				
Mid-Year Budget Update				
Capital Improvement Program				
Fiscal Year 2018-2019				
				Exhibit F
	Project Name	Adopted Budget 2018-2019	Mid-Year Budget Amendment 2018- 2019	Proposed Amended Budget 2018-2019
<b>12. Facilities Improvements</b>				
A	El Encanto Convalescent Hospital Roof Repair	100,000	\$ 100,000	-
B	El Encanto Underground Electrical (Parking Lot Lighting)	82,000	\$ 82,000	-
C	Hudson Building Design, Phase 1	185,000	\$ 350,000	(165,000)
D	Hatcher Warehouse Upgrades	100,000	\$ 20,000	80,000
E	El Encanto - carpet, moulding, wall covering & Hand Rails	465,000	\$ 200,000	265,000
F	El Encanto - Sub Acute Dialysis Center	280,000	\$ 100,000	180,000
G	Hudson Building, Phase 2	100,000	\$ 50,000	50,000
H	Hatcher Yard Facility Demolition	45,000	\$ 45,000	-
	Site Plan for Sheriff Trailer		\$ 80,000	(80,000)
		<b>1,357,000</b>	<b>\$ 1,027,000</b>	<b>330,000</b>
	<b>GRAND TOTALS</b>	<b>\$ 59,899,500</b>	<b>\$ 25,217,000</b>	<b>\$ 34,682,500</b>
		-		

*INDUSTRY PUBLIC UTILITIES COMMISSION*

ITEM NO. 5.4





# INDUSTRY PUBLIC UTILITIES COMMISSION

## MEMORANDUM

**TO:** Honorable President Radecki and Commission Board Members

**STAFF:** Troy Helling, Public Utilities Director *TH*

**FROM:** Joshua Nelson, Contract IPUC Engineer, CNC Engineering *JN*  
Dev Birla, Operations Manager, CNC Engineering *DOB*

**DATE:** March 28, 2019

**SUBJECT:** Update on Master Power Purchase and Sale Agreement and Confirmation Agreement with Powerex Corporation for the procurement of Bundled Renewable Energy

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### Background:

The California Renewable Portfolio Standard Program (“RPS” or “RPS Program”) was established by Senate Bill (“SB”) 1078 (2002). This RPS Program has been subsequently modified by SB 107 (2006), SB 1036 (2007), and SB X1 2 (2011), SB 350 (2015) and SB 100 (2018), and set forth new RPS requirements applicable to publicly owned utilities (“POU”). IPUC, as a POU, must comply with the RPS Program. The RPS Program is codified in Public Utilities Code (“PUC”) § 399.11-399.32. The RPS Program requires California’s electric utilities and other retail sellers to procure eligible renewable energy resources (“ERRs”) so that the amount of electricity generated from ERRs equals or exceeds a specified percentage of the total electricity sold to retail customers in California.

SBX1 2 (2011) established increasing progressive renewable energy procurement targets, requiring POUs to increase their procurement of ERR to 33% of retail sales by 2020 with interim targets of an average of 20% through 2011-2013 and 25% by 2016. Recently approved SB 100 (2018) increased the RPS procurement requirements to 60% of retail sales by 2030.

On June 13, 2013, IPUC adopted the Renewable Energy Resources Enforcement Program (“RPS Enforcement Program”). Through the RPS Enforcement Program, the IPUC established compliance periods consistent with the RPS Program, adopted RPS-eligible procurement goals for each of the compliance periods and described the framework for how IPUC would implement the requirements and measures. Compliance failures are subject to

penalties. To mitigate the risk of price volatility in the wholesale renewable energy resources market and assess the need for any associated changes in customer rates to recover such costs, IPUC will solicit competitive fixed-price bids from renewable energy power suppliers to meet the RPS procurement obligation for the 2017-2020 RPS Compliance Period.

To comply with the RPS Program, there are three distinct Portfolio Content Categories (PCC) that may be used to satisfy the procurement obligation:

1. PCC 1 refers to bundled procurement from qualified renewable energy generators located within the State or from out-of-State generators that can meet strict scheduling requirements to ensure uninterrupted deliverability to California. The California Energy Commission (CEC) Regulations set minimum procurement amounts for PCC 1, but impose no maximum limitation on the amount of RPS procurement that can come from PCC 1.
2. PCC 2 refers to “firmed and shaped” transactions where the bundled procurement from a renewable resource is “matched” with an equivalent amount of incremental energy, which is scheduled into a California Balancing Authority.
3. PCC 3 procurement refers to purchases of “unbundled” RECs with no physical delivery of associated or related energy.

### **Discussion:**

In the past, IPUC was unable to find sufficient PCC 2 resources to procure, so they procured the more expensive PCC 1 resources. The additional cost of procuring PCC 1 resources to achieve its PCC 2 2014-2016 RPS compliance obligation was \$103,971. IPUC has also incurred a brokerage fee of 2.5% to procure PCC 1 resources. Going forward, staff intends to stay ahead of this so we are able to purchase PCC 2 resources when needed.

In order to execute a contract for the supply of renewable energy resources, a master enabling agreement is typically established between the IPUC and the potential power supplier containing the terms and conditions that will govern all purchase and/or sale transactions between the two parties. Should the IPUC elect to purchase renewable energy from a supplier, details of the transaction (price, quantity, term, etc.) are stated on a transaction confirmation form. There is no financial/fiscal impact associated with a master agreement until a transaction confirmation form is executed under the agreement.

With the objective of complying with the RPS Program at competitive rates for IPUC customers, CNC Engineering and ASTRUM Utility Services have been actively working to establish additional master agreements with potential renewable energy suppliers. The

Master Power Purchase & Sale Agreement with Powerex is based on the standard format that was drafted by representatives from the Edison Electric Institute and National Energy Marketers Association to facilitate orderly trading in and development of the wholesale power market, and modified according to the terms and conditions stated on the Coversheet (collectively referred to as the "Master Agreement").

Similar to the existing enabling agreement with Shell Energy North America, the Master Agreement provides for specific incremental Confirmation Orders that specify the details of the transaction; remedies for failure to deliver or receive; events of default; and credit and collateral requirements. Through the Master Agreement, IPUC will include Powerex in its solicitation of competitive bids. Powerex is a generator of PCC 2 resources and any Confirmation will not include a brokerage fee. There is no financial/fiscal impact associated with the Master Agreement unless Powerex is selected as the most favorable bidder and a Confirmation Order is executed. IPUC will only pay for Renewable Energy Credits (REC) certificates after they have been successfully transferred to the City's account with the Western Renewable Energy Generation Information System (WREGIS).

The forecasted cost to meet the PCC 2 requirements for the 2017-2020 RPS Compliance Period is \$49,320, and will avoid the potential additional cost of procuring PCC 1 resources to achieve its PCC 2 obligation.

Other provisions of the Master Agreement include:

1. The term shall commence on the effective date and shall remain in effect until terminated by either Party upon thirty days' prior written notice; provided, however that such termination shall not effect or excuse the performance of prior Confirmation Orders;
2. The total value of the Confirmation Orders between IPUC and Powerex cannot exceed \$5,000,000; and
3. If an Event of Default occurs, the IPUC is obligated to provide Performance Assurance equal to the difference between the contract obligation and market value of the contract quantity.

The terms and conditions of the Cover Sheet of the Master Agreement and Confirmation were not finalized between IPUC and Powerex until November 29, 2018. Under his signatory authority, and to capitalize on an estimated savings of \$73,000.00, Mr. Helling, the IPUC's Utility Director, executed the agreement with Powerex. The attached documentation is being provided for reference only because the Master Agreement and Confirmation were

already approved back in November 2018. This should be the only confirmation order we sign with Powerex and will bring back any additional purchases to this board for approval.

**Fiscal Impact:**

The State mandated "Public Purpose Programs Charge" collected from customers can be deployed to fund the \$49,320 expenditure.

**Recommendation:**

Receive and file the report.

**Exhibits:**

- A. Cover Sheet of Master Power Purchase and Sale Agreement with Powerex
- B. Confirmation of Agreement on Trade Date November 29, 2018

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TH/JN/DB:jv

**EXHIBIT A**

Cover Sheet of Master Power Purchase and Sale Agreement with Powerex

[Attached]

# MASTER POWER PURCHASE AND SALE AGREEMENT

## COVER SHEET

This Master Power Purchase and Sale Agreement (Version 2.1, modified 4/25/00) ("Master Agreement") is made as of the following date: November 29, 2018 ("Effective Date"). The Master Agreement, together with the exhibits, schedules and any written supplements hereto, the Party A Tariff, if any, the Party B Tariff, if any, any designated collateral, credit support or margin agreement or similar arrangement between the Parties and all Transactions (including any confirmations accepted in accordance with Section 2.3 hereto) shall be referred to as the "Agreement." The Parties to this Master Agreement are the following:

Name: **Powerex Corp.\*** ("Powerex" or "Party A")

*\* doing business in California as Powerex Energy Corp.*

### All Notices:

Street: Suite 1300 – 666 Burrard Street  
City: Vancouver, B.C. Zip: V6C 2X8  
Attn: Manager, Contracts  
Phone: (604) 891-6090  
Facsimile: (604) 891-5006  
Email: [powerex.legalservices@powerex.com](mailto:powerex.legalservices@powerex.com)  
Duns: 25-330-1949  
Federal Tax ID Number: 98-0164470

### Invoices:

Attn: Finance Department  
Phone: (604) 891-5023  
Facsimile: (604) 891-6011  
Email: [powerex.finance@powerex.com](mailto:powerex.finance@powerex.com)

### Scheduling:

Attn: Daily Optimization & Scheduling  
Phone: (604) 891-5007  
Facsimile: (604) 891-5045  
Email: [presched@powerex.com](mailto:presched@powerex.com)

### Payments:

Attn: Finance Department  
Phone: (604) 891-5023  
Facsimile: (604) 891-6011

### Wire Transfer:

BNK: Wells Fargo Bank  
ABA: 026005092  
Beneficiary's Bank: Bank of Montreal  
ACCT: 00044625335

### Beneficiary's Bank:

Bank of Montreal Intl Banking H.O. Montreal  
Bank Code:  
ACCT: SWIFT BOFMCAM2  
Powerex Corp.

Name: **City of Industry**, a California municipal corporation ("Industry" or "Party B")

### All Notices:

Street: 15625 Stafford Street  
City: City of Industry, CA Zip: 91744  
Attn: Contract City Engineer  
Phone: (626) 956-8038  
Facsimile: (626) 369-4306  
Email: [JNelson@cc-eng.com](mailto:JNelson@cc-eng.com)  
Duns: 07-882-4471  
Federal Tax ID Number: 95-6408097

### Invoices:

Attn: Accounts Payable  
Phone: (626) 333-2211  
Facsimile: (626) 961-6795  
Email: [coiap@cityofindustry.org](mailto:coiap@cityofindustry.org)

### Scheduling:

Attn: Justin Pannu  
Phone: (619) 684-8182  
Facsimile: (619) 684-8360  
Email: [Juston.Pannu@calpinesolutions.com](mailto:Juston.Pannu@calpinesolutions.com)

### Payments:

Attn: Laura McClaskey  
Phone: (626) 333-2211 x 215  
Email: [laura@cityofindustry.org](mailto:laura@cityofindustry.org)

### Wire Transfer:

BNK: Bank of America  
ABA: 122000661  
ACCT: 14591-10395



**Credit and Collections:**  
 Attn: Credit Risk Department  
 Phone: (604) 891-6014  
 Facsimile: (604) 891-5025  
 Email: creditrisk@powerex.com

**Credit and Collections:**  
 Attn: Sequoia Financial  
 Phone: (818) 409-6000  
 Facsimile: (818) 707-7070  
 Email: clientrelations@sequoiafinancial.com

With additional Notices of an Event of Default or Potential Event of Default to:  
 Attn: Director, Risk Management  
 Phone: (604) 891-5041  
 Facsimile: (604) 891-5056

With additional Notices of an Event of Default or Potential Event of Default to:  
 Attn: Accounts Payable  
 Phone: (626) 333-2211  
 Email: coiap@cityofindustry.org

The Parties hereby agree that the General Terms and Conditions are incorporated herein, and to the following provisions as provided for in the General Terms and Conditions:

Party A Tariff: Powerex Corp. FERC Rate Schedule No. 1, effective February 25, 2016, Docket No. ER17-704-000, as such Rate Schedule may be amended, modified, updated or replaced in accordance with FERC rules and procedures  
 Party B Tariff: Tariff \_\_\_\_\_ Dated \_\_\_\_\_ Docket Number \_\_\_\_\_

**Article Two**

Transaction Terms and Conditions  Optional provision in Section 2.4. If not checked, inapplicable.

**Article Four**

Remedies for Failure to Deliver or Receive  Accelerated Payment of Damages. If not checked, inapplicable.

**Article Five**

Events of Default; Remedies  Cross Default for Party A:  
 Party A: \_\_\_\_\_ Cross Default Amount US\$ \_\_\_\_\_  
 Other Entity: British Columbia Hydro and Power Authority Cross Default Amount US\$ 100,000,000  
 Cross Default for Party B:  
 Party B: City of Industry Cross Default Amount US\$ 5,000,000  
 Other Entity: \_\_\_\_\_ Cross Default Amount US\$ \_\_\_\_\_

5.6 Closeout Setoff

- Option A (Applicable if no other selection is made.)
- Option B - Affiliates shall have the meaning set forth in the Agreement unless otherwise specified as follows: The sole Affiliate with respect to Party A shall be British Columbia Hydro and Power Authority.
- Option C (No Setoff)

**Article 8**

Credit and Collateral Requirements

8.1 Party A Credit Protection:

(a) Financial Information:

- Option \_\_\_\_\_
- Option B Specify: \_\_\_\_\_

A

Option C Specify: (A) (1) The annual report containing audited consolidated financial statements for such fiscal year of City of Industry as soon as practicable after demand, but in no event later than 180 days after the end of each annual period, and (2) quarterly unaudited financial statements for City of Industry as soon as practicable upon demand, but in no event later than 90 days after the applicable quarter. In all cases the statements shall be for the most recent accounting period and shall be prepared in accordance with generally accepted accounting principles; provided, however, that should any such statements not be available on a timely basis due to a delay in preparation or certification, such delay shall not be an Event of Default so long as the relevant entity diligently pursues the preparation, certification and delivery of the statements. The statements shall consist of, at a minimum, statement of revenues, expenses and changes in fund net assets, statement of net assets, statement of cash flows on a consolidating basis (as applicable), including the associated notes. Audited statements shall be audited by an independent certified public accountant.

(b) Credit Assurances:

- Not Applicable  
 Applicable

(c) Collateral Threshold:

- Not Applicable  
 Applicable

If applicable, complete the following:

Party B Collateral Threshold: US\$1,500,000, provided, however, that Party B's Collateral Threshold shall be zero if an Event of Default or Potential Event of Default with respect to Party B or Party B's Guarantor has occurred and is continuing.

Party B Independent Amount: US\$0

Party B Rounding Amount: US\$250,000

(d) Downgrade Event:

- Not Applicable  
 Applicable

If applicable, complete the following:

It shall be a Downgrade Event for Party B if the lowest rating assigned to Party B or any bonds issued by Party B falls below BBB- from S&P or below Baa3 from Moody's, or if Party B or the bonds issued by Party B are not rated by any Ratings Agency.

- Other:  
Specify:

(e) Guarantor for Party B: N/A

Guarantee Amount: N/A



8.2 Party B Credit Protection:

(a) Financial Information:

- Option A
- Option B Specify: British Columbia Hydro and Power Authority.
- Option C Specify: \_\_\_\_\_

(b) Credit Assurances:

- Not Applicable
- Applicable

(c) Collateral Threshold:

- Not Applicable
- Applicable

If applicable, complete the following:

Party A Collateral Threshold: Shall be the lower of (i) the amount set forth in the table immediately below opposite the lowest Credit Rating for Party A's Guarantor, as determined by Moody's or S&P or (ii) the amount of the dollar limit in the guarantee, if any, provided by Party A's Guarantor:

Collateral Threshold (in US Dollars)	Credit Rating (Moody's)	Credit Rating (S&P)
\$40,000,000	Aa3 or higher	AA- or higher
\$30,000,000	A3, A2 or A1	A-, A or A+
\$20,000,000	Baa1	BBB+
\$10,000,000	Baa2	BBB
\$2,500,000	Baa3	BBB-
\$0	Below Baa3	Below BBB-

provided, however, that Party A's Collateral Threshold shall be zero if an Event of Default or Potential Event of Default with respect to Party A or Party A's Guarantor has occurred and is continuing.

Party A Independent Amount: US\$0

Party A Rounding Amount: US\$250,000

(d) Downgrade Event:

- Not Applicable
- Applicable

If applicable, complete the following:

It shall be a Downgrade Event for Party A if the Credit Rating of Party A's Guarantor falls below BBB- from S&P or below Baa3 from Moody's, or if Party A's Guarantor is not rated by any Ratings Agency.

- Other:  
Specify: \_\_\_\_\_

(e) Guarantor for Party A: British Columbia Hydro and Power Authority

Guarantee Amount: In accordance with Section 8.2(e).

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**Article 10**

Confidentiality

Confidentiality Applicable

If not checked, inapplicable.

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**Schedule M**

- Party A is a Governmental Entity or Public Power System
- Party B is a Governmental Entity or Public Power System
- Add Section 3.6. If not checked, inapplicable
- Add Section 8.6. If not checked, inapplicable

**Other Changes**

**Cover Sheet: Schedule M**

The Cover Sheet is revised by deleting the reference "Section 8.6" and replacing it with "Section 8.4".

**Article One: General Definitions**

Section 1.1 is revised by adding the following sentence to the end of the definition:

"Notwithstanding the foregoing, the sole Affiliate with respect to Party A shall be British Columbia Hydro and Power Authority."

Section 1.4 is revised by adding the words "a Canadian bank holiday, Easter Monday or any statutory holiday in British Columbia, the Friday immediately following the Thanksgiving holiday, and any holiday observed by the City of Industry" in the first line immediately before the words "or a Federal Reserve Bank holiday".

Section 1.12 is revised to read as follows:

"1.12 "Credit Rating" means, with respect to any entity, the rating then assigned by Moody's, S&P or any other rating agency agreed by the Parties as set forth in the Cover Sheet, to such entity's senior unsecured long-term debt obligations (not supported by insurance provider enhancements) or if such entity does not have a rating for its senior unsecured long-term debt, then the rating then assigned to such entity as an issuer rating by Moody's or as an issuer or corporate credit rating by S&P or another rating by any other rating agency agreed by the Parties as set forth in the Cover Sheet. In the event that the Party or its Guarantor has multiple ratings, the lower rating shall prevail."

Section 1.27 is revised by (A) deleting the word "transferable" in the first line and replacing it with "non-transferable", (B) adding the phrase ", a Canadian commercial bank" in the second line immediately after the words "U.S. commercial bank", (C) deleting the words "credit rating" in the third line and replacing it with "long term debt rating or deposit rating", and (D) adding the phrase "and at least \$10 billion in total assets" in the third line immediately after the word "Moody's".

The following defined term is added as Section 1.49A:

"1.49A "Ratings Agency" means S&P, Moody's or any other rating agency agreed by the Parties as set forth in the Cover Sheet."

Section 1.50 is revised to read as follows:

"1.50 "Recording" has the meaning set forth in Section 2.5."

Section 1.51 is revised by deleting the phrase "at Buyer's Option" in the fifth line thereof and replacing it with the text ", absent a purchase".

Section 1.52 is revised by (i) deleting the words "Rating Group" from the first line and replacing with "Financial Services LLC" and (ii) by replacing the words in the parenthetical with "a subsidiary of McGraw-Hill Companies, Inc."

Section 1.53 is revised by deleting the phrase "at Seller's Option" in the fifth line thereof and replacing it with the text ", absent a sale".

#### Article Two: Transaction Terms and Conditions

In Section 2.1, delete the first sentence in its entirety and replace with the following: "A Transaction, or an amendment, modification or supplement thereto, shall be entered into only upon a writing signed by both Parties."

In Section 2.1, the last sentence is deleted in its entirety and replaced with the following:

"As of the Effective Date, Party B represents and warrants to Party A that Party B's City Manager and City Engineer have the sole authority to enter into Transactions under the Master Agreement. All Confirmations executed by Party B shall contain signature lines for the City Manager or City Engineer, provided that it shall be Party B's sole and exclusive responsibility for ensuring that any Confirmation has its appropriate signatories listed and that each Confirmation is duly executed by its authorized representative. Party A may rely without further inquiry on the name(s), title(s) and signature(s) of individuals executing a Confirmation on behalf of Party B as being genuine signatures and authorized to bind Party B to the applicable Confirmation and Transaction. Each Party agrees not to contest, or assert any defense to, the validity or enforceability of the Transaction entered into in accordance with this Master Agreement based on any lack of authority of the Party or any lack of authority of any employee of the Party to enter into a Transaction."

Section 2.2 is amended by deleting the text "accepted in accordance with Section 2.3" from the second sentence and is further revised by adding the following to the end of that Section:

"Party A and Party B agree that from and after the Effective Date, all new transactions with respect to the purchase and sale of any Product shall be made or deemed to be made pursuant to this Master Agreement (unless otherwise specifically agreed in writing). Both Parties further agree that this Master Agreement shall apply to those transactions, if any, under the WSPP, Inc. Agreement ("WSPP Agreement"). Party A and Party B confirm the terms of those transactions and agree that such transactions, if any, are, effective as of the Effective Date, governed by this Master Agreement and are part of the single integrated agreement between the Parties, consistent with this Section 2.2."

Section 2.3 is hereby deleted in its entirety and replaced with the following:

"2.3 Confirmation. A Transaction shall be entered into only by a written confirmation in a form mutually agreeable to both Parties and signed by both Parties ("Confirmation"). Notwithstanding anything to the contrary in this Master Agreement, the Master Agreement and any and all Confirmations may not be amended or modified except by an instrument in writing signed by both of the Parties."

Section 2.4 is hereby amended by deleting the words "either orally or" in the seventh line.

Section 2.5 is hereby amended by deleting the last two sentences thereof in their entirety.

#### Article Three: Obligations and Deliveries

Section 3.2 is revised to add the following to the end of the section: "From time to time the Parties may agree to bookout Transactions until further notice. Bookouts are undertaken as a scheduling convenience and do not modify the terms of any Transaction."

Article Five: Events of Default; Remedies

Section 5.1(g) is revised (A) by adding "(after giving effect to any applicable notice requirement or grace period)" in the second line after the word "continuation", (B) by adding "required to be made under one or more agreements for such Party or any other party specified in the Cover Sheet," in the eleventh line before the word "individually", and (C) by adding the following phrase at the end of the section "provided, an Event of Default shall not occur under this Section 5.1(g) if, as demonstrated to the reasonable satisfaction of the other Party, the Event of Default or the failure to pay is the result of a failure to pay caused by an error or omission of an administrative or operational nature, funds were available to such Party to enable it to make the relevant payment when due, and such relevant payment is made within three Business Days following receipt of written notice from the party to whom the payment is owed."

Section 5.1(h)(v) is revised to add "made in connection with this Agreement" after "any guaranty".

The "." at the end of subparagraph (v) of Section 5.1(h) is replaced with ";" and the following two paragraphs are added to the end of Section 5.1:

"(i) a Letter of Credit Failure that is not cured within two (2) Business Days after the occurrence thereof; or

(j) a default, event of default, termination event, breach or any other similar event (howsoever expressed) that has not been remedied within the applicable grace period under any other agreement or instrument (including without limitation commodity or financial derivative agreements or transactions) between a Party or its Affiliate and the other Party or its Affiliate, that results in the other party being entitled under the terms of such other agreement to terminate and liquidate transactions and arrive at a net settlement payment thereunder by invoking a process similar in substance to the process described in Sections 5.2, 5.3 and 5.6 regardless of the defined terms used to describe the same."

Section 5.2 is revised by reversing the placement of "(i)" and "to".

Clause (b) of Section 5.3 is amended by (a) adding the phrase "plus, at the option of the Non-Defaulting Party, any cash then available to the Defaulting Party pursuant to Article Eight," after the first occurrence of the words "Non-Defaulting Party" and (b) adding the following sentence at the end of the section:

"Notwithstanding the immediately preceding sentence, no Termination Payment shall be due or payable to the Defaulting Party."

Section 5.7 is revised by replacing the word "early" with the word "Early" in the sixth line thereof.

The following is added as a new Section 5.8:

5.8 Letter of Credit Failure. For the purposes of this Article Five, "Letter of Credit Failure" shall mean, with respect to a Party that has provided a Letter of Credit as Performance Assurance:

- (a) a failure to renew or substitute a Letter of Credit by no later than ten Business Days prior to expiry thereof;
- (b) the issuer of such Letter of Credit fails to maintain a Credit Rating of at least "A-" by S&P or at least "A3" by Moody's and fails to maintain at least \$10 billion in total assets;
- (c) the issuer of the Letter of Credit fails to comply with or perform its obligations under such Letter of Credit if such failure continues after the lapse of any applicable grace period;
- (d) the issuer of such Letter of Credit disaffirms, disclaims, repudiates or rejects, in whole or in part, or challenges the validity of, such Letter of Credit;
- (e) such Letter of Credit shall expire or terminate, or shall fail or cease to be in full force and effect for purposes of this Agreement (other than in accordance with its terms) at any time during the term of the Agreement or any outstanding Transaction; or
- (f) any event analogous to an event specified in Subsection 5.1(d) or (f) of this Agreement occurs with respect to the issuer of such Letter of Credit.

However, no Letter of Credit Failure will occur with respect to a Letter of Credit after the time such Letter of Credit is required to be cancelled or returned in accordance with the terms of this Agreement."

Article Six: Payment and Netting

Section 6.4 is revised by adding the following sentence to the end of the section:

"In the event the Parties are transacting under additional agreements, all transactions completed in the same month shall be netted against each other using the procedure described above."

Article Eight: Credit and Collateral Requirements

Section 8.1(a) is revised so that (i) the figures "120" and "60" in each of Options (A) and (B) are replaced with the figures "180" and "90" respectively, and (ii) the following is added after the text "... shall apply exclusively.":

"The provision of financial information pursuant to Section 8.1(a) may be effected electronically, including by electronic mail or providing an active website link."

Section 8.1(b) is revised to add the following after the end of the first sentence:

"Without limiting the generality of the preceding sentence, in determining whether there are reasonable grounds to believe Party B's creditworthiness or performance under this Agreement has become unsatisfactory, Party A may consider (i) any representation or warranty with respect to a Party B's financial statement provided to Party A in accordance with the Agreement being false or misleading, and (ii) Party B's equity or net position, as reflected in the fiscal year-end financial statements provided in accordance with this Agreement, having fallen below US\$0.00 (zero dollars) for two fiscal reporting periods."

Section 8.1(d) is revised so that the words "or a guaranty" in the fourth line after the words "Performance Assurance" are deleted and the phrase "or fails to maintain such Performance Assurance or other credit assurance for so long as the Downgrade Event is continuing" is added in the fifth line after the phrase "within three (3) Business Days of receipt of notice".

Section 8.2(a) is revised so that (i) the figures "120" and "60" in each of Options (A) and (B) are replaced with the figures "180" and "90" respectively, and (ii) the following is added after the text "... shall apply exclusively.":

"The provision of financial information pursuant to Section 8.2 (a) may be effected electronically, including by electronic mail or providing an active website link."

Section 8.2(c) is revised by adding the following paragraph after the first paragraph:

"Party A may at any time and from time to time (including at the time of a request by Party B for Performance Assurance) give notice to Party B of its intent to increase the amount of the guarantee provided by Party A's Guarantor up to the amount set forth in the table on the Cover Sheet opposite the lowest Credit Rating for Party A's Guarantor. No such increase shall become effective until Party A shall have provided Party B with a new guaranty or an amended guaranty (in form and substance acceptable to Party B). If the operation of the foregoing results in the sum of Party A Performance Assurance and Party A's Collateral Threshold being in excess of its Termination Payment plus Party A's Independent Amount, if any, (rounding upwards for any fractional amount to the next Party A Rounding Amount) Party A shall be deemed to have requested that the Party A Performance Assurance be reduced accordingly."

Section 8.2 (d) is revised so that the words "or a guaranty" in the fourth line after the words "Performance Assurance" are deleted and the phrase "or fails to maintain such Performance Assurance or other credit assurance for so long as the Downgrade Event is continuing" is added in the fifth line after the phrase "within three (3) Business Days of receipt of notice".

Section 8.2(e) is deleted in its entirety and replaced with the following:

"(e) If specified on the Cover Sheet, Party A shall, at the request of Party B, deliver to Party B a guarantee in a form and an amount agreed to by both Parties and Party A's Guarantor, which shall be delivered to Party B on or before ten (10) Business Days after the date on which the Parties and Party A's Guarantor have agreed to the form and amount of the guarantee. In the event the Parties (each acting reasonably) and Party A's Guarantor cannot agree to the form and amount for the guarantee to be delivered by Party A within ten (10) Business Days of Party B's request, Party A may deliver Performance Assurance to Party B in substitution for the guarantee. For greater certainty, it shall not be an Event of Default if Party A does not deliver a guarantee to Party B absent a request by Party B and the agreement of the Parties and Party A's Guarantor as to the form and amount of such guarantee."

Section 8.4 is added as follows:

"In no event shall a Party be required to provide Credit Assurances, Independent Amounts or any other collateral that in the aggregate exceeds the Termination Payment plus the Independent Amount."

#### Article Ten: Miscellaneous

Section 10.6 is amended by replacing "NEW YORK" with "CALIFORNIA".

Section 10.7 is revised to read as follows:

"10.7 Notices. All notices, requests, statements or payments shall be made as specified in the Cover Sheet. Notices (other than scheduling requests) shall, unless otherwise specified herein, be in writing and may be delivered by hand delivery, United States mail, overnight

courier service, electronic mail or facsimile. Notice by facsimile, electronic mail or hand delivery shall be effective at the close of business on the day actually received, if received during business hours on a Business Day, and otherwise shall be effective at the close of business on the next Business Day. Notice by overnight United States mail or courier shall be effective on the next Business Day after it was sent. A Party may change its addresses, physical or electronic, by providing notice of same in accordance herewith.”

Section 10.11 is revised to read as follows:

“10.11 Confidentiality. If the Parties have elected on the Cover Sheet to make this Section 10.11 applicable to this Master Agreement, neither Party shall disclose (i) the terms or conditions of a Transaction or any other information exchanged relating to a Transaction or potential Transaction, or (ii) the completed Cover Sheet to this Master Agreement, to a third party (other than the Party’s employees, lenders, counsel, accountants or advisors who have a need to know such information and have agreed to keep such terms confidential) except (a) in order to comply with any applicable law, regulation, or any exchange, control area or independent system operator rule or in connection with any court or regulatory proceeding, or (b) to the extent necessary to provide commercial terms of a Transaction, except the details pertaining to Seller or Buyer or either Party’s name, to a third party for the sole purpose of calculating a published index; provided, however, each Party shall, to the extent practicable, use reasonable efforts to prevent or limit the disclosure. The Parties shall be entitled to all remedies available at law or in equity to enforce, or seek relief in connection with, this confidentiality obligation.”

The following is added as Section 10.12:

“10.12 Arbitration.

- (a) Any claim, counterclaim, demand, cause of action, dispute or controversy arising out of or relating to this Agreement, or in respect of any legal relationship associated therewith or derived there from or relating to the subject matter of this Agreement, whether contractual in nature or not, shall be referred to and finally resolved by arbitration administered pursuant to the International Arbitration Rules of the American Arbitration Association. The number of arbitrators shall be three, and each Party shall choose one arbitrator and the two arbitrators shall choose the third arbitrator, who shall serve as chair. The place of arbitration shall be San Francisco, California, unless California state law mandates an alternate location. The language of the arbitration shall be English. It is agreed that the arbitrators shall have no jurisdiction or authority to award treble, exemplary or punitive damages of any type under any circumstances whether or not such damages may be available under any applicable law, and each of the Parties hereby waives its rights, if any, to recover any such damages. To the fullest extent permitted by law, the Parties shall maintain in confidence the fact that an arbitration has been commenced, all documents and information exchanged during the course of the arbitration proceeding, and the arbitrators’ award, provided that each of the Parties shall be entitled to disclose such matters to its own officers, directors and employees, its professional advisors and other representatives as necessary for the purposes of conducting the arbitration, and may make such disclosures in the course of legal proceedings as may be required to pursue any legal right arising out of or in connection with the arbitration.
- (b) If any applicable law or statute authorizes any form of court proceeding in any of the courts of the United States that in any way arises out of or is related to an arbitration conducted pursuant to this Agreement (“Related

Proceedings”), then, to the extent that any such matter is in whole or in part eligible for resolution by a United States District Court, whether or not the dispute may in whole or in part also be eligible for resolution in a state court, each party irrevocably:

- (i) submits to the exclusive jurisdiction of the United States District Court located in Los Angeles County, California (or, if the United States District Court is not sitting in Los Angeles County, the next nearest United States District Court in the Ninth Circuit) and all courts of appeal therefrom for the purposes of such Related Proceedings; and
- (ii) waives any objection which it may have at any time to the laying of venue of any Related Proceedings brought in any such court, waives any claim that such Related Proceedings have been brought in an inconvenient forum, and further waives the right to object, with respect to such Related Proceedings, that such court does not have any jurisdiction over such party.

Nothing in this Agreement precludes either Party from bringing a proceeding in any jurisdiction to enforce an arbitration award or any judgment enforcing an arbitration award, nor will the bringing of such proceedings in any one or more jurisdictions preclude the bringing of enforcement proceedings in any other jurisdiction. In connection with any court proceedings, each Party waives its respective right to any jury trial.”

The following is added as Section 10.13:

“10.13 Waiver. FERC Standard of Review.

(A) Absent the agreement of all parties to the proposed change, the standard of review for changes to any provision of this Agreement (including all Power Transactions and/or Confirmations) specifying the rate(s) or other material economic terms and conditions agreed to by the parties herein, whether proposed by a party, a non-party or FERC acting *sua sponte*, shall solely be the “public interest” standard of review set forth in United Gas Pipe Line Co. v. Mobile Gas Service Corp., 350 U.S. 332 (1956) and Federal Power Commission v. Sierra Pacific Power Co., 350 U.S. 348 (1956) and clarified by Morgan Stanley Capital Group, Inc. v. Public Util. Dist. No. 1 of Snohomish 554 U.S. 527 (2008) and NRG Power Marketing LLC v. Maine Public Utility Commission, 558 U.S. 165 (2010)(the “Mobile-Sierra” doctrine).

(B) The parties, for themselves and their successors and assigns, (y) agree that “public interest” standard of review shall apply to any proposed changes in any other documents, instruments or other agreements executed or entered into by the parties in connection with this Agreement and (z) hereby expressly and irrevocably waive any rights they can or may have to the application of any other standard of review, including the “just and reasonable” standard of review, provided that this standard of review and the other provisions of this Section 10.13 shall only apply to proceedings before the FERC or appeals thereof.

(C) In addition, and notwithstanding the foregoing clauses (A) and (B), to the fullest extent permitted by applicable law, each party, for itself and its successors and assigns, hereby expressly and irrevocably waives any rights it can or may have, now or in the future, whether under Sections 205 and/or 206 of the Federal Power Act or otherwise, to seek to obtain from FERC by



any means, directly or indirectly (through complaint, investigation or otherwise), and each hereby covenants and agrees not at any time to seek to so obtain, an order from FERC changing any provision of this Agreement (including any applicable Transactions and/or Confirmations) specifying the rate(s) or other material economic terms and conditions agreed to by the parties, it being the express intent of the parties that, to the fullest extent permitted by applicable law, neither party shall unilaterally seek to obtain from FERC any relief changing the rate(s) and/or other material economic terms and conditions of their agreement(s), as set forth in this Agreement and in any Transactions or Confirmations, notwithstanding any subsequent changes in applicable law or market conditions that may occur. In the event it were to be determined that applicable law precludes the parties from waiving their rights to seek changes from FERC to their market-based power sales contracts (including entering into covenants not to do so) then this Section 10.13 shall not apply, provided that, consistent with this Section 10.13 neither party shall seek any such changes except under the "public interest" standard of review and otherwise as set forth in clauses (A) and (B) above.

The following is added as Section 10.14:

"10.14 Index Transactions. If the Contract Price for a Transaction is determined by reference to a Price Source, then:

- (a) Market Disruption. If a Market Disruption Event occurs on any one or more days during a Determination Period (each day, a "Disrupted Day"), then:
  - (i) The fallback Floating Price, if any, specified by the Parties in the relevant Confirmation shall be the Floating Price for each Disrupted Day.
  - (ii) If the Parties have not specified a fallback Floating Price, then the Parties will endeavor, in good faith and using commercially reasonable efforts, to agree on a substitute Floating Price, taking into consideration, without limitation, guidance, protocols or other recommendations or conventions issued or employed by trade organizations or industry groups in response to the Market Disruption Event and other prices published by the Price Source or alternative price sources with respect to the Delivery Point or comparable Delivery Points that may permit the Parties to derive the Floating Price based on historical differentials.
  - (iii) If the Price Source retrospectively issues a Floating Price in respect of a Disrupted Day (a "Delayed Floating Price") before the parties agree on a substitute Floating Price for such day, then the Delayed Floating Price shall be the Floating Price for such Disrupted Day. If a Delayed Price is issued by the Price Source in respect of a Disrupted Day after the Parties agree on a substitute Floating Price for such day, the substitute Floating Price agreed upon by the Parties will remain the Floating Price without adjustment unless the Parties expressly agree otherwise.
  - (iv) If the Parties cannot agree on a substitute Floating Price and the Price Source does not retrospectively publish or announce a Floating Price, in each case, on or before the fifth Business Day following the first Trading Day on which the Market Disruption Event first occurred or existed, then the Floating Price for each Disrupted Day shall be

determined by taking the arithmetic mean of quotations requested from four leading dealers in the relevant market that are unaffiliated with either Party and mutually agreed upon by the Parties ("Specified Dealers"), without regard to the quotations with the highest and lowest values, subject to the following qualifications:

- A. If exactly three quotations are obtained, the Floating Price for each such Disrupted Day will be the quotation that remains after disregarding the quotations having the highest and lowest values.
  - B. If fewer than three quotations are obtained, the Floating Price for each such Disrupted Day will be the average of the quotations obtained.
  - C. If the Parties cannot agree upon four Specified Dealers, then each of the Parties will, acting in good faith and in a commercially reasonable manner, select up to two Specified Dealers separately, and those selected dealers shall be the Specified Dealers.
- (v) Unless otherwise agreed, if at any time the Parties agree on a substitute Floating Price for any Disrupted Day, then such substitute Floating Price shall be the Floating Price for such Disrupted Day, notwithstanding the subsequent publication or announcement of a Delayed Floating Price by the relevant Price Source or any quotations obtained from Specified Dealers.
- (b) Definitions. For the purposes of this Section 10.14, the following terms shall have the following meanings:
- (i) "Determination Period" means each calendar month a part or all of which is within the Delivery Period of a Transaction.
  - (ii) "Exchange" means, in respect of a Transaction, the exchange or principal trading market specified as applicable to the relevant Transaction.
  - (iii) "Floating Price" means a Contract Price specified in a Transaction that is based upon a Price Source.
  - (iv) "Market Disruption Event" means, with respect to any Price Source, any of the following events:
    - A. the failure of the Price Source to announce, publish or make available the specified Floating Price or information necessary for determining the Floating Price for a particular day;
    - B. the failure of trading to commence on a particular day or the permanent discontinuation or material suspension of trading in the relevant options contract or commodity on the Exchange, RTO or in the market specified for determining a Floating Price;
    - C. the temporary or permanent discontinuance or unavailability of the Price Source;

- D. the temporary or permanent closing of any Exchange or RTO specified for determining a Floating Price; or
  - E. a material change in the formula for or the method of determining the Floating Price by the Price Source or a material change in the composition of the Product.
- (v) "Price Source" means, in respect of a Transaction, a publication or such other origin of reference, including an Exchange or RTO, containing or reporting or making generally available to market participants (including by electronic means) a price, or prices or information from which a price is determined, as specified in the relevant Transaction.
  - (vi) "RTO" means any regional transmission operator or independent system operator.
  - (vii) "RTO Transaction" means a Transaction in which the Price Source is an RTO.
  - (viii) "Trading Day" means a day in respect of which the relevant Price Source ordinarily would announce, publish or make available the Floating Price.
- (c) Corrections to Published Prices. If the Floating Price published, announced or made available on a given day and used or to be used to determine a relevant price is subsequently corrected by the relevant Price Source (i) within 30 days of the original publication, announcement or availability, or (ii) in the case of RTO Transactions only, within such longer time period as is consistent with the RTO's procedures and guidelines, then either Party may notify the other Party of that correction and the amount (if any) that is payable as a result of that correction. If, not later than thirty (30) days after publication or announcement of that correction, a Party gives notice that an amount is so payable, the Party that originally either received or retained such amount will, not later than three (3) Business Days after such notice is effective, pay, subject to any applicable conditions precedent, to the other Party that amount, together with interest at the Interest Rate for the period from and including the day on which payment originally was (or was not) made to but excluding the day of payment of the refund or payment resulting from that correction. Notwithstanding the foregoing, corrections shall not be made to any Floating Prices agreed upon by the Parties or determined based on quotations from Specified Dealers pursuant to paragraph (a) above unless the Parties expressly agree otherwise.
- (d) Rounding. When calculating a Floating Price, all numbers shall be rounded to four (4) decimal places. If the fifth (5th) decimal number is five (5) or greater, then the fourth (4th) decimal number shall be increased by one (1), and if the fifth (5th) decimal number is less than five (5), then the fourth (4th) decimal number shall remain unchanged."

The following is added as Section 10.15:

"10.15 Counterparts / Electronic Delivery.

This Master Agreement and any Confirmation may be executed in counterparts each of which is an original, and all of which shall constitute one and the same instrument. Delivery of an executed signature page of this Master Agreement and any

Confirmation by facsimile or electronic mail transmission (in portable document format (PDF)) shall be as effective as delivery of a manually executed signature page.”

#### Schedule M

“Act” is deleted in its entirety and replaced with the following:

“Act” means applicable California and local laws, including but not limited to the California Constitution, the California Government Code, the California Public Utilities Code, the Charter of the City of Industry and the City of Industry Municipal Code under which Party B was created, organized and authorized to enter into this Master Agreement and each Transaction hereunder.

The text “CALIFORNIA” is inserted in the space provided in paragraph G of Schedule M.

Section 3.4 is amended by deleting “(i)” and the entirety of paragraph (ii).

#### Schedule P: Products and Related Definitions

The following definition and provision are added to Schedule P:

1. “CAISO Energy” means with respect to any Transaction, a Product under which the Seller shall sell and the Buyer shall purchase a quantity of energy equal to the hourly quantity without Ancillary Services (as defined in the Tariff) that is or will be scheduled as a schedule coordinator to schedule coordinator transaction pursuant to the applicable tariff and protocol provisions of the California Independent System Operator (“CAISO”) (as amended from time to time, the “Tariff”) for which the only excuse for failure to deliver or receive is an “Uncontrollable Force” (as defined in the Tariff). A CAISO “Schedule Adjustment” (defined as a schedule change implemented by the CAISO that is neither caused by, or within the control of, either Party) shall not constitute an Uncontrollable Force (as defined in the Tariff).

2. Other Products and Service Levels: In addition to the Products set out in Schedule P, the Parties may agree to use a product or service level defined by a different agreement (i.e., the Tariff, the WSPP Agreement, etc.) for a particular Transaction under this Master Agreement. If so, then the Transaction shall be subject to all the terms of this Master Agreement, except that (1) the product or service level definition, (2) force majeure, uncontrollable force definitions or other excuses for performance, (3) applicable regional reliability requirements and guidelines, and (4) other terms and conditions as mutually agreed in writing, shall have the meaning given to them in the different agreement or in the applicable Confirmation.

*[Remainder of this page intentionally left blank]*

IN WITNESS WHEREOF, the Parties have caused this Master Agreement to be duly executed as of the date first above written.

Powerex Corp.\*

City of Industry

By: *Rebecca Richings*  
Name: Rebecca Richings  
Title: Chief Financial Officer

By: *[Signature]*  
Name: Troy Helling  
Title: City Manager



\* doing business in California as Powerex Energy Corp.

**DISCLAIMER:** This Master Power Purchase and Sale Agreement was prepared by a committee of representatives of Edison Electric Institute ("EEI") and National Energy Marketers Association ("NEM") member companies to facilitate orderly trading in and development of wholesale power markets. Neither EEI nor NEM nor any member company nor any of their agents, representatives or attorneys shall be responsible for its use, or any damages resulting therefrom. By providing this Agreement EEI and NEM do not offer legal advice and all users are urged to consult their own legal counsel to ensure that their commercial objectives will be achieved and their legal interests are adequately protected.

**EXHIBIT B**

Confirmation of Agreement on Trade Date November 29, 2018

[Attached]



**AGREEMENT BETWEEN  
Powerex Corp. \* and City of Industry  
Powerex Deal No. FYP785**

This document (“**Confirmation**” or “**Agreement**”) confirms the agreement reached on the Trade Date between Powerex Corp.\* (“**Powerex**” or “**Seller**”) and City of Industry, a California municipal corporation, (“**Industry**” or “**Buyer**”) regarding the sale and purchase of the Product in accordance with the EEI Master Power Purchase and Sale Agreement dated as of November 29, 2018, together with any and all exhibits, schedules or supplements thereto or incorporated therein by reference, each in force and effect from time to time between the Parties and as amended and supplemented by this Confirmation (collectively, the “**Master Agreement**”) under the following terms and conditions. Consistent with Section 2.2 of the Master Agreement, this Confirmation, together with all other transactions, confirmations and the Master Agreement, form a single integrated agreement between the Parties and are not separate contracts. This Agreement supersedes and replaces any prior oral or written confirmation or agreement, including broker confirmations, regarding this Transaction.

**Seller:** Powerex

**Buyer:** Industry

**Trade Date:** November 29, 2018

**Transaction:** This Transaction is for Buyer to procure Bundled Renewable Energy, all in accordance with the terms and conditions of this Confirmation.

**Generation Term:** For the purposes of this Confirmation and the Bundled Renewable Energy to be delivered pursuant hereto, the generation term for Bundled Renewable Energy is December 1, 2018, to November 30, 2019, inclusive.

**Product:** “**Bundled Renewable Energy**”, which is comprised of energy generated by the Project(s) and the associated Green Attributes.

**Delivery:** The Parties recognize that a schedule of energy to the CAISO Balancing Authority is a delivery to the CAISO and not directly to Buyer. Scheduling Energy to the CAISO Balancing Authority shall constitute delivery of Bundled Renewable Energy to Buyer, provided the WREGIS Certificates evidencing the Green Attributes comprised in the Bundled Renewable Energy are delivered to Buyer as provided in this Confirmation.

Energy

Buyer elects to take delivery of the energy by either Delivery Method 1 (Category 1 Product) or Delivery Method 2 (Category 2 Product), or both, as specified under the “Contract Quantity” section. The Parties intend that the Product as procured by Buyer and as delivered by Seller in accordance with (i) Delivery Method 1 will meet the Category 1 Product Eligibility Requirements and (ii) Delivery Method 2 will meet the Category 2 Product Eligibility Requirements.

Green Attributes

Green Attributes to be delivered to Buyer hereunder shall be represented by WREGIS Certificates. Seller shall use WREGIS to transfer title to the Green Attributes to Buyer. The transfer of WREGIS Certificates through WREGIS shall be deemed to transfer title to all of the Green Attributes associated with the Product.

Due to WREGIS Timelines, completion of delivery of the Green Attributes may occur after the Generation Term or Generation Sub-term, as applicable, however such delay shall not constitute a failure to deliver the WREGIS Certificates by Seller. Seller will match WREGIS Certificates with e-Tags prior to transferring WREGIS Certificates to Buyer (unless there are no e-Tags associated with the Energy delivery).

**Contract Quantity:** During the Generation Term, Buyer shall procure **7,200 MWh** of Bundled Renewable Energy from Seller ("**Contract Quantity**") to be delivered by Seller in accordance with the Delivery Method Election elected by Buyer in the table below:

Delivery Method Election

	<u>Quantity (MWh)</u>	<u>Delivery Method / Category Product</u>
<input type="checkbox"/>	-	" <b>Delivery Method 1</b> " – (Category 1 Product) – Energy directly delivered from the Project on an hourly, sub-hourly or real-time basis to the Delivery Point without substituting electricity from another source (" <b>Project Energy</b> ").
<input checked="" type="checkbox"/>	7,200	" <b>Delivery Method 2</b> " – (Category 2 Product) – Energy generated by a source other than the Project, delivered to the Delivery Point in substitution for, and in an amount matching the amount of, Project Energy (" <b>Substitute Energy</b> ").

If both boxes are checked, Buyer is deemed to have selected a combination of Delivery Method 1 and Delivery Method 2 as detailed above.

Energy Delivery Profile

The Energy shall be delivered by Seller in compliance with the applicable minimum and maximum amounts for each Generation Sub-term as set forth in the table below. For greater certainty, Seller's delivery obligations shall be based on delivery of the minimum amounts specified for each Generation Sub-term and delivery of the Contract Quantity for the Generation Term.

<u>Generation Sub-term</u>	<u>Category 1 Product (MWh)</u>		<u>Category 2 Product (MWh)</u>	
	<i>Minimum</i>	<i>Maximum</i>	<i>Minimum</i>	<i>Maximum</i>
December 1, 2018, to November 30, 2019	-	-	7,200	7,200

Seller may schedule or cause to be scheduled the Energy during any or all hours in the Generation Term.



**Contract Price:**

In this Confirmation,

“CAISO Credit” means the Energy Price paid by the CAISO for the Energy.

“Category 1 GA Price” means: N/A.

“Category 2 GA Price” means: \$6.85/MWh for each MWh of the Category 2 Product delivered to Buyer.

“Energy Price” means, for each MWh of Energy delivered, the applicable Locational Marginal Price, as defined in the CAISO Tariff and published by CAISO, at the CAISO Point where CAISO models the physical injection of such Energy.

“GA Price” means the Category 1 GA Price or the Category 2 GA Price, as applicable.

For each MWh of Category 1 Product or Category 2 Product delivered to Buyer, the Contract Price shall consist of the sum of the Energy Price and the applicable GA Price, less the CAISO Credit, calculated as follows:

$$\text{Contract Price} = (\text{Energy Price} + \text{applicable GA Price}) - \text{CAISO Credit}$$

**Facilities:**

Bundled Renewable Energy procured under this Confirmation will be generated by one or more of the facilities listed in Schedule “A”. For the purposes of delivering Category 1 Product, Seller may add additional facilities from time to time by providing Buyer with an updated Schedule “A” (with additional facilities listed in Part B) which shall replace the existing Schedule “A” to this Confirmation.

**Delivery Point:**

Seller may deliver Energy to any CAISO Point. For greater certainty, in the event an e-Tag includes more than one CAISO Point, the Delivery Point shall be the last point of delivery (POD) or “sink” CAISO Point on such e-Tag.

**Scheduling, Tagging and WREGIS Transfers:**Scheduling

Seller shall schedule or cause to be scheduled, at its sole discretion, Energy to the CAISO Balancing Authority on a day-ahead, hour-ahead, sub-hourly and/or real-time basis.

All Energy shall be scheduled in accordance with Generally Accepted Utility Practice.

E-tagging

Seller shall generate all e-Tags required to schedule the Energy to the Delivery Point and such e-Tags will be in accordance with generally accepted e-tagging practices and standards in the WECC region. For greater certainty, no e-Tags will be generated for deliveries from a Project within the CAISO Balancing Authority. Each e-Tag will include the following, depending on the Category Product:

<u>E-Tag Location</u>	<u>Category 1 Product</u>	<u>Category 2 Product</u>
Last CA (Control Area) under 'Physical Path'	N/A	CAISO Balancing Authority
First 'POR/ POD' under 'Physical Path'	N/A	No Requirement
Last or 'sink' PSE (Purchasing Selling Entity) under 'Physical Path'	N/A	N/A
Misc(Token/Value) field	N/A	One or more, up to a maximum of ten, of the RPS ID numbers for the Projects
Comment field	N/A	N/A

If a "sink" PSE is not specified above by Buyer, Seller may, and Buyer authorizes Seller to, use a sink PSE (including its own) consistent with generally accepted e-tagging practices and standards in the WECC region (including CAISO deliveries).

#### WREGIS Transfers

WREGIS Certificates will be transferred to Buyer following applicable WREGIS Timelines. WREGIS Certificates will be transferred to the WREGIS account named "City of Industry" (Account #834).

In the event WREGIS changes the WREGIS Operating Rules in effect on the Trade Date (or its application thereof) such that WREGIS Certificates cannot be transferred to Buyer as required this Confirmation, the Parties will negotiate in good faith using commercially reasonable efforts to revise or amend this Confirmation to the extent possible to enable the transfer of WREGIS Certificates to Buyer.

#### **Verification and Compliance:**

Seller will cooperate with Buyer and provide information as requested and as necessary for verification of the Category 1 Product or Category 2 Product, as applicable to this Transaction, as required for the California RPS Program under California Public Utilities Code ("PUC") 399.11 et seq. and under PUC 399.16(b)(1) or (2) specifically, including any information necessary to demonstrate that Category 1 Product or Category 2 Product meets the applicable Eligibility Requirements.

#### **Invoicing and Payment:**

For the purposes of this Transaction, invoicing and payment for Energy and Green Attributes delivered to Buyer shall be in accordance with Article 6 of the Master Agreement. The CAISO Credit will be reflected in the Energy invoice. The Parties acknowledge that invoicing and payments for the Energy may not occur in the same month as invoicing and payments for the Green Attributes associated with

such Energy due to the delivery of the Green Attributes following WREGIS Timelines. Seller shall be entitled to retain for its account all revenues received from the CAISO associated with the delivery of Energy to the CAISO Balancing Authority.

Seller's invoices may be delivered by email from Seller to Buyer.

### SPECIAL CONDITIONS

1. Definitions. The defined terms in Schedule "B" shall apply to this Confirmation.
2. Eligibility Requirements. If, at any time, a Category Product does not meet the applicable Eligibility Requirements (a "**Failing Category Product**"), it shall not be an Event of Default for the purposes of the Master Agreement. If a Failing Category Product does not meet or satisfy the Eligibility Requirements for any reason other than a Buyer Eligibility Failure, a Seller Eligibility Failure or Force Majeure, the following shall apply:
  - (a) the Parties will negotiate in good faith using commercially reasonable efforts to revise or amend this Confirmation as appropriate so that the Failing Category Product meets or satisfies the applicable Eligibility Requirements in a manner consistent with the intent of the Parties as set out in this Confirmation.
  - (b) If the Parties are unsuccessful in revising or amending the Confirmation as provided in (a) above:
    - (i) the Parties will have no liability to each other for any failure to schedule, deliver or purchase the Failing Category Product that is not then delivered (provided, for greater certainty, that Buyer shall remain liable for any Green Attributes associated with Energy already delivered to Buyer); and
    - (ii) either Party may, by written notice to the other, immediately terminate the Transaction, without penalty, termination payment or liability of either Party to the other except as provided in sub-paragraph (i) above.
3. Failure to Deliver/Receive. For purposes of this Transaction, the determination of the Replacement Price and Sales Price shall be based on the energy and Green Attributes components of the Product and damages will be calculated in a commercially reasonable manner consistent with Article 4 of the Master Agreement. For greater certainty: (i) any quantity of Category Product that does not meet or satisfy the applicable Eligibility Requirements as a result of a Seller Eligibility Failure shall be considered a failure to deliver by Seller, and (ii) Seller shall not be liable to Buyer for any quantity of Category Product that does not meet or satisfy the applicable Eligibility Requirements as a result of a Buyer Eligibility Failure. If WREGIS Certificate(s) are not transferred as required by this Confirmation solely as a result of an error or omission of WREGIS or the CAISO, it shall not be a failure to deliver or receive, however the Parties shall use commercially reasonable effort and cooperate in good faith to cause WREGIS to correct its error or omission to complete such transfer.
4. Waived Shortfall – Category 2 Product. If Seller reasonably anticipates that it will be unable to deliver the required quantity of Category 2 Product with respect to any Generation Sub-term or the Generation Term, Seller may provide written notice to Buyer on or before sixty (60) days prior to the end of the applicable Generation Sub-term and, upon Buyer's receipt of such notice, the Parties will negotiate in good faith using commercially reasonable efforts to determine whether Seller may deliver a product comparable to the Category 2 Product generated by or attributable to an Alternate Eligible Facility or Alternate Source ("Alternate Supply"). If the Parties mutually agree to such arrangements for Alternate Supply, they will enter into a separate agreement respecting same and

Buyer will waive the shortfall and any related liquidated damages that may otherwise be payable pursuant to this Confirmation for the amount of such Alternate Supply.

5. Force Majeure. For purposes of this Transaction, the Products shall be subject to Force Majeure and Section 3.3 of the Master Agreement. For greater certainty, a change in law shall not be an event of Force Majeure for the purposes of this Transaction. The Master Agreement is hereby amended by editing paragraph (iii) of the definition of Force Majeure in Section 1.23 to read as follows:

“the loss or failure of Seller’s supply, except, with respect to the Green Attributes, to the extent Seller’s supply is itself subject to an event of Force Majeure;”

6. Events of Default; Remedies. For purposes of this Transaction:
- (a) For the purposes of determining payments under Section 5.2 of the Master Agreement, with respect to this Transaction, the economic benefits or losses of the Non-Defaulting Party resulting from termination of this Transaction shall be based on the energy and Green Attributes components of the Product.
  - (b) The remedies for failure to deliver the Product (including Green Attributes) provided for in the Master Agreement as amended by this Confirmation are the sole and exclusive remedies and all other remedies are waived.

7. Importer of Energy/Compliance Obligation. For any Energy imported into California, Seller will be the electricity importer into California for purposes of the Cap and Trade Regulations. The Parties acknowledge that Seller will be responsible for satisfying the Compliance Obligation under the Cap and Trade Regulations associated with the energy which Seller shall schedule and import into the CAISO Balancing Authority as part of the Product to be delivered under this Confirmation and that Seller may and shall have the right to claim that any Energy that Seller has scheduled and imported into the CAISO Balancing Authority is from a Specified Source and claim the RPS Adjustment with respect to Substitute Energy. Buyer agrees to assist Seller in making the Specified Source and RPS Adjustment claims, including agreeing as follows:

- (a) Specified Source – Category 1 Product. Buyer agrees, by May 15 following the end of each calendar year in the Generation Term, to provide Seller with a written attestation providing a detailed breakdown of the total quantity of WREGIS Certificates transferred under this Confirmation associated with the Category 1 Product that have been placed in a WREGIS retirement subaccount and those that remain in a WREGIS active subaccount and the name of each such account.
- (b) RPS Adjustment – Category 2 Product. Buyer agrees to provide Seller with the information required by Seller for the purpose of claiming the RPS Adjustment including, but not limited to, providing by May 15 following the end of each calendar year in the Generation Term a written attestation to Seller that the quantity of WREGIS Certificates transferred under this Confirmation associated with the immediately previous calendar year in the Generation Term as Category 2 Product have been placed in Buyer’s WREGIS retirement subaccount and that the RECs represented by such WREGIS Certificates have been designated for retirement for the purposes of Buyer’s compliance with the California RPS Program for the applicable year in the Generation Term in accordance with the Cap and Trade Regulation (and shall promptly notify Seller of any changes (e.g. subsequent withdrawal of WREGIS Certificates from Buyer’s WREGIS retirement subaccount) after delivery of the attestation with information as may be required by Seller to comply with Section 95111.g.1.M.2 of the Mandatory Reporting Rule (or any similar or successor provision)).

- (i) In the event Buyer re-sells Category 2 Product, Buyer shall continue to provide the attestation provided in this Section 7(b) and references to "Buyer's WREGIS retirement subaccount" and "Buyer's compliance with the California RPS Program" shall be read to include the subsequent purchaser's WREGIS retirement subaccount and compliance with the California RPS Program.
- (ii) If Seller does not meet the conditions for the RPS Adjustment as a result of any act or omission of Buyer (including failure to place WREGIS Certificates in Buyer's own WREGIS retirement subaccount and designate the RECs represented by the WREGIS Certificates for retirement for the purposes of Buyer's own compliance with the California RPS Program), Buyer shall reimburse or pay Seller the cost of Allowances (as defined in Cap and Trade Regulation 95802(a)(8)) purchased or required by Seller as a result of Seller's inability to claim the RPS Adjustment, at the price established at the next succeeding auction of Allowances hosted by CARB or, failing which, prevailing market prices.

This Section 7 is based on the Cap and Trade Regulations and Mandatory Reporting Rule as of the Trade Date of this Confirmation. In the event that the regulatory requirements for mitigating the Compliance Obligation change after the Trade Date, Buyer shall make commercially reasonable efforts to assist Seller in meeting such regulatory requirements. This provision shall survive expiry or earlier termination of this Transaction until such time as the information contemplated herein in respect of the last year of the Generation Term is provided to Seller by Buyer.

- 8. Resale. Seller makes no representation or warranty that the Category 1 Product or Category 2 Product will satisfy applicable Eligibility Requirements if re-sold to a third party by Buyer. In the event all or any portion of the Category Product(s) purchased or to be purchased by Buyer hereunder is re-sold by Buyer, any such resale does not affect Buyer's obligations hereunder and Buyer remains primarily liable to Seller for all Buyer's obligations hereunder.
- 9. Standard/Non-Modifiable Terms and Conditions.
  - (a) This Agreement and the rights and duties of the Parties hereunder shall be governed by and construed, enforced and performed in accordance with the laws of the state of California, without regard to principles of conflicts of law.
  - (b) Seller shall be responsible for ensuring that: (i) each Project is certified as an eligible renewable energy resource for the California RPS Program prior to delivery of Category 1 Product or Category 2 Product hereunder from such Project; and (ii) the Green Attributes have been or will be transferred to Seller and will be transferrable to Buyer through or using WREGIS, or such similar generation information or attributes tracking system as may be approved by or other method of transfer acceptable to the Energy Commission;
  - (c) Seller warrants that all necessary steps to allow the Renewable Energy Credits transferred to Buyer to be tracked in the Western Renewable Energy Generation Information System will be taken prior to the first delivery under the contract [STC REC-2];
  - (d) Seller hereby provides and conveys all Green Attributes associated with all electricity generation from the Project to Buyer as part of the Product being delivered. Seller represents and warrants that Seller holds the rights to all Green Attributes from the Project, and Seller agrees to convey and hereby conveys all such Green Attributes to Buyer as included in the delivery of the Product from the Project; and
  - (e) For the purposes of this Transaction:

- (i) Seller, and, if applicable, its successors, represents and warrants that throughout the Delivery Term of this Agreement that: (i) the Project qualifies and is certified by the CEC as an Eligible Renewable Energy Resource ("ERR") as such term is defined in Public Utilities Code Section 399.12 or Section 399.16; and (ii) the Project's output delivered to Buyer qualifies under the requirements of the California Renewables Portfolio Standard. To the extent a change in law occurs after execution of this Agreement that causes this representation and warranty to be materially false or misleading, it shall not be an Event of Default if Seller has used commercially reasonable efforts to comply with such change in law [STC 6]; and
- (ii) Seller and, if applicable, its successors, represents and warrants that throughout the Delivery Term of this Agreement the Renewable Energy Credits transferred to Buyer conform to the definition and attributes required for compliance with the California Renewables Portfolio Standard, as set forth in California Public Utilities Commission Decision 08-08-028, and as may be modified by subsequent decision of the California Public Utilities Commission or by subsequent legislation. To the extent a change in law occurs after execution of this Agreement that causes this representation and warranty to be materially false or misleading, it shall not be an Event of Default if Seller has used commercially reasonable efforts to comply with such change in law. [STC REC-1]

For the purposes of STC 6 above, for the Category 2 Product, the Parties acknowledge that Substitute Energy, in substitution for Project Energy, and Green Attributes are delivered to Buyer.

As used in Section 9(e) of this Confirmation, "Delivery Term" has the same meaning as "Generation Term" provided that, for the purposes of STC 6 above with respect to any facility listed in Schedule A, the Parties agree that the representation and warranty therein applies only to the portion of such Delivery Term that is after the eligibility date issued by the CEC and during which the output from that facility is being delivered to Buyer.

The Parties agree that, so long as the Seller has used commercially reasonable efforts to comply with a change in law resulting in either of the above representations and warranties becoming incorrect, Buyer shall receive and pay for any Product supplied hereunder notwithstanding any non-compliance with the California RPS Program resulting from the change in law.

10. Commercially Reasonable Efforts.

- (a) A Party required to use or make "commercially reasonable efforts" pursuant to this Agreement shall not be required to incur more than \$25,000 in aggregate direct or indirect costs, including lost profits, and out-of-pocket costs and expenses, to comply with such "commercially reasonable efforts", and then only to the extent incurring such costs would be reasonably likely to achieve the desired effect.
- (b) In the event an issue or circumstance requiring a Party to use or make commercially reasonable efforts similarly affects one or more other transactions between the Parties, the limit set forth in paragraph (a) above shall apply to all such transactions between the Parties and shall not be cumulative to any limits applicable to such other transactions.

11. Condition Precedent. This Confirmation (and the transaction confirmed thereby) shall not be binding upon any Party until and unless both Powerex and Industry have executed and delivered (i) an EEI Master Power Purchase and Sale Agreement and (ii) this Confirmation to the other Party before 11:59 p.m. Pacific Prevailing Time on November 30, 2018. If either Party fails to satisfy

the foregoing condition precedent, then this Confirmation (and the transaction confirmed thereby) shall have no force and effect and all offers hereunder shall be deemed rescinded.

This Confirmation is being provided pursuant to and in accordance with the Master Agreement, and constitutes part of and is subject to the terms and provisions of the Master Agreement. Terms used but not defined herein shall have the meanings ascribed to them in the Master Agreement.

The Parties agree it is their intention that the Transaction provided for in this Confirmation is not capable of being agreed to orally and shall only become binding on the Parties when this Confirmation is executed by both Parties.

**ACKNOWLEDGED AND AGREED TO:**

**POWEREX CORP.\***

  
Mark Holman  
Managing Director

Name:

Title:

Date: 11/29/2018

*\*doing business in California as Powerex Energy Corp.*

Contact:

Anthony Des Lauriers

Tel: (604) 891-6018

Fax: (604)891-5056

Scheduling:

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Tel: (604) 891-5091 (Real Time)

Tel: (604) 891-5057 (Mid-Office Agreement)

Fax: (604) 891-5045

E-mail: cash.desk@powerex.com

**CITY OF INDUSTRY**



Name: Troy Helling

Title: City Manager

Date: November 29, 2018

Contact:

Joshua Nelson

Tel: (626) 956-8038

Fax: (626) 369-4306

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Scheduling:

Justin Pannu

Tel: (619) 684-8182 (Prescheduler)

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Tel: (619) 684-8182 (Mid-Office Agreement)

E-mail: [Justin.Pannu@calpinesolutions.com](mailto:Justin.Pannu@calpinesolutions.com)

**SCHEDULE "A"**Project(s)**Part A – Initial Projects**

<u>Facility Name</u>	<u>State / Province</u>	<u>Technology</u>	<u>RPS ID</u>	<u>Total Facility Nameplate (MW)</u>
Dokie Wind Energy Project	BC	Wind	61360A	144
Quality Wind Project	BC	Wind	62247A	142.2
Cape Scott Wind	BC	Wind	60600A	99
Meikle Wind Energy Project	BC	Wind	63268A	184.6
White Creek Wind I	WA	Wind	60721A	204.7
Seneca Sustainable Energy, LLC	OR	Biomass	61090A	19.8
Shinish Creek Wind Farm	BC	Wind	TBA**	15
Pennask Wind Farm	BC	Wind	TBA**	15
Moose Lake Wind Project	BC	Wind	TBA**	15

\*\* To be assigned. An RPS ID has not yet been assigned to this facility

**Part B – Additional Projects for Category 1 Product**

[to be added under the terms of the section - "Facilities" as required]



11  
SCHEDULE "B"

Additional Definitions

For the purposes of this Confirmation, the following terms shall have the following meanings:

- (a) "Alternate Eligible Facility" means an alternate generation facility that is certified as an eligible renewable energy resource for the California RPS Program and from which Seller is entitled to energy and associated Green Attributes generated during the Generation Term (or portion thereof in respect of which bundled energy and associated Green Attributes to be delivered hereunder are generated by such facility).
- (b) "Alternate Source" means an alternate source of supply of energy and associated Green Attributes generated by the same facility as a Project during the Generation Term and which Seller is entitled to pursuant to its purchase agreements for output from the facility.
- (c) "Buyer Eligibility Failure" means a failure of a Category Product to meet or satisfy the applicable Eligibility Requirements or any element or component thereof which are in the direct control of Buyer to meet or satisfy as a result of or if caused by or attributable to an act or omission of Buyer, including use of the Product other than for its own California RPS Program compliance purposes, a failure by Buyer to accept an applicable transfer on WREGIS, to provide information and data available to Buyer (including as provided by Seller) as may be required to verify the Green Attributes comprised in the Products or failure to retire or designate for retirement the RECs for the purposes of compliance with the California RPS Program.
- (d) "CAISO Balancing Authority" has the meaning set forth in the CAISO Tariff.
- (e) "CAISO Point" means any Location in the CAISO Balancing Authority or CAISO Controlled Grid, including any Scheduling Point (as such terms are defined in the CAISO Tariff).
- (f) "CAISO Tariff" means the applicable tariff and protocol provisions of the California Independent System Operator ("CAISO") (as amended from time to time).
- (g) "California RPS Program" or "California Renewables Portfolio Standard" means the "California Renewables Portfolio Standard" program jointly administered by the CEC, the CPUC and the California Air Resources Board, as such program exists as of the Trade Date, including without limitation all applicable eligibility criteria and requirements thereof in force and effect as of the Trade Date.
- (h) "Cap and Trade Regulations" means the regulations entitled California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms set forth at Article 5 of Subchapter 10 of Title 17 of the California Code of Regulations.
- (i) "Category 1 Product" means the Product where Buyer has elected to have the energy delivered as Project Energy in accordance with Delivery Method 1.
- (j) "Category 1 Product Eligibility Requirements" means, with respect to the Category 1 Product only, any applicable criteria or requirements of the California RPS Program in force and effect as of the Trade Date regarding the eligibility or qualification of the Category 1 Product to meet the criteria of Section 399.16(b)(1) of the California Public Utilities Code or this Confirmation or the Transaction confirmed hereby for the California RPS Program, including without limitation any eligibility criteria applicable to an out-of-state resource.
- (k) "Category 2 Product" means the Product where Buyer has elected to have Substitute Energy delivered in substitution for Project Energy in accordance with Delivery Method 2.

- (l) “Category 2 Product Eligibility Requirements” means, with respect to Category 2 Product only, any applicable criteria or requirements of the California RPS Program in force and effect as of the Trade Date regarding the eligibility or qualification of the Category 2 Product to meet the criteria of Section 399.16(b)(2) of the California Public Utilities Code or this Confirmation or the Transaction confirmed hereby for the California RPS Program, including without limitation any eligibility criteria applicable to an out-of-state resource, and in a manner consistent with Section 3203(b) of the CEC Enforcement Guidelines.
- (m) “Category Product” means Category 1 Product or Category 2 Product, as applicable.
- (n) “CEC Enforcement Guidelines” means the Enforcement Procedures for the Renewables Portfolio Standard for Local Publicly Owned Electric Utilities (CEC-300-2016-002-CMF), as adopted by the Energy Commission, effective on April 12, 2016.
- (o) “change in law” refers to any determination, decision, application of, or change in law or policy after the Trade Date by or of the CEC or the CPUC or other applicable legislative, governmental or regulatory authority or third party having authority or jurisdiction.
- (p) “Compliance Obligation” has the meaning set forth by the Cap and Trade Regulations.
- (q) “CPUC” means the California Public Utilities Commission.
- (r) “Eligibility Requirements” means Category 1 Product Eligibility Requirements or Category 2 Product Eligibility Requirements, as applicable.
- (s) “Energy” means Project Energy or Substitute Energy, as applicable.
- (t) “Energy Commission” or “CEC” means the California Energy Commission.
- (u) “Generally Accepted Utility Practice” means a practice established by the Western Electricity Coordinating Council (“WECC”) or any successor regional reliability council, as such practice may be revised from time to time, or if no practice is so established, means a practice otherwise generally accepted in the WECC region.
- (v) “Generation Sub-term” means any sub-period within the Generation Term as specified in the Energy Delivery Profile Table under the heading “Delivery Method Quantity” (and for greater certainty means Generation Term if only one Generation Sub-term).
- (w) “Green Attributes” means any and all credits, benefits, emissions reductions, offsets, and allowances, howsoever entitled, attributable to the generation from the Project, and its avoided emission of pollutants. Green Attributes include but are not limited to Renewable Energy Credits, as well as: (1) any avoided emission of pollutants to the air, soil or water such as sulfur oxides (SOx), nitrogen oxides (NOx), carbon monoxide (CO) and other pollutants; (2) any avoided emissions of carbon dioxide (CO2), methane (CH4), nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride and other greenhouse gases (GHGs) that have been determined by the United Nations Intergovernmental Panel on Climate Change, or otherwise by law, to contribute to the actual or potential threat of altering the Earth’s climate by trapping heat in the atmosphere;<sup>1</sup> (3) the reporting rights to these avoided emissions, such as Green Tag Reporting Rights. Green Tag Reporting Rights are the right of a Green Tag Purchaser to report the ownership of accumulated Green Tags in compliance with federal or state law, if applicable, and to a federal or state agency or any other party at the Green Tag Purchaser’s discretion, and include without

<sup>1</sup> Avoided emissions may or may not have any value for GHG compliance purposes. Although avoided emissions are included in the list of Green Attributes, this inclusion does not create any right to use those avoided emissions to comply with any GHG regulatory program.

limitation those Green Tag Reporting Rights accruing under Section 1605(b) of The Energy Policy Act of 1992 and any present or future federal, state, or local law, regulation or bill, and international or foreign emissions trading program. Green Tags are accumulated on a MWh basis and one Green Tag represents the Green Attributes associated with one (1) MWh of Energy. Green Attributes do not include (i) any energy, capacity, reliability or other power attributes from the Project, (ii) production tax credits associated with the construction or operation of the Project and other financial incentives in the form of credits, reductions, or allowances associated with the project that are applicable to a state or federal income taxation obligation, (iii) fuel-related subsidies or "tipping fees" that may be paid to Seller to accept certain fuels, or local subsidies received by the generator for the destruction of particular preexisting pollutants or the promotion of local environmental benefits, or (iv) emission reduction credits encumbered or used by the Project for compliance with local, state, or federal operating and/or air quality permits. If the Project is a biomass or biogas facility and Seller receives any tradable Green Attributes based on the greenhouse gas reduction benefits or other emission offsets attributed to its fuel usage, it shall provide Buyer with sufficient Green Attributes to ensure that there are zero net emissions associated with the production of electricity from the Project.

- (x) "Green Tag" and "Green Tag Reporting Rights" have the meanings set forth in the definition of "Green Attributes", and for the purposes of this Transaction, "Green Tag Purchaser" means Buyer.
- (y) "Mandatory Reporting Rule" means the regulations entitled Mandatory Greenhouse Gas Emissions Reporting set forth at Article 2 of Subchapter 10 of Title 17 of the California Code of Regulations.
- (z) "Party" means Buyer or Seller, and "Parties" means both Buyer and Seller.
- (aa) "Project" means a facility listed in Schedule "A" provided that, for the purposes of Sections 9(d) and 9(e) of this Confirmation and the definition of Green Attributes, the term "Project" shall be read to refer to all such facilities listed in Schedule "A" but only to the extent of Seller's contractual rights to the energy and Green Attributes produced by such facilities. Seller must be contractually entitled to all or a portion of the bundled energy and associated Green Attributes generated by the facilities listed in Schedule "A" during the Generation Term (or portion thereof in which the Product is generated by or attributed to such facility). Buyer acknowledges that Seller (i) may deliver the Product from any or all Projects, and (ii) may not have a contractual right to the entire output of such facilities.
- (bb) "Renewable Energy Credit" or "REC" means a renewable energy credit as defined by and in accordance with the California Public Utilities Code.
- (cc) "RPS Adjustment" means the reduction in the Compliance Obligation of an electricity importer authorized by and calculated in accordance with section 95852 (b)(4) of the Cap and Trade Regulations and section 95111(b)(5) of the Mandatory Reporting Rule.
- (dd) "RPS ID" means the "California Energy Commission RPS certification number", the "identification number" and/or the "RPS ID", as such terms are used by the CEC to describe the identification number for an eligible renewable energy resource that has been certified (or will be certified for the period of deliveries) as such by the CEC for the purposes of the RPS. The RPS ID for each Project is set out beside the applicable facility under the column "RPS ID" in the table attached hereto as Schedule "A".
- (ee) "Scheduling Point" has the meaning set forth in the CAISO Tariff, including (without limitation) the SYLMARDC\_2\_N501 and MALIN\_5\_N101 Scheduling Points.
- (ff) "Seller Eligibility Failure" means a failure of (i) Category 1 Product or Category 2 Product to meet or satisfy the applicable Eligibility Requirements as a result of any requirements set forth in Section 9(b) of this Confirmation not being satisfied, or (ii) any other Eligibility Requirements or element

or component thereof applicable to a Category Product which are in the direct control of Seller to meet or satisfy as a result of or if caused or attributable to an act or omission by Seller unless, in either the case of (i) or (ii), such failure is excused by Force Majeure.

- (gg) "Specified Source" means "specified source", as such term is defined in the Mandatory Reporting Rule.
- (hh) "WREGIS" means the Western Renewable Energy Generation Information System or any successor renewable energy tracking program.
- (ii) "WREGIS Certificate" means a "Certificate" as defined by WREGIS in the WREGIS Operating Rules and designated by law as eligible for complying with the California RPS Program and for evidencing the Green Attributes associated with the Product.
- (jj) "WREGIS Operating Rules" means the operating rules and requirement adopted by WREGIS, as amended from time to time.
- (lck) "WREGIS Timelines" means the time line for WREGIS Certificate creation by WREGIS in accordance with WREGIS Operating Rules as applied by WREGIS.

*INDUSTRY PUBLIC UTILITIES COMMISSION*

ITEM NO. 5.5



# INDUSTRY PUBLIC UTILITIES COMMISSION

## MEMORANDUM

**TO:** Honorable President and Members of the Industry Public Utilities Commissioners

**FROM:** Troy Helling, Public Utilities Director *TH*

**STAFF:** Joshua Nelson, Contract IPUC Engineer, CNC Engineering *gm*  
Dev Birla, Operations Manager, CNC Engineering *DOB*

**DATE:** March 28, 2019

**SUBJECT:** Consideration of Amendment No. 1 to the Master Power Purchase and Sale Agreement with Calpine Energy Solutions, LLC to update the Schedule of Hourly Contract Quantities

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### Background:

The California Independent System Operator (“CAISO”) was created by the California legislature in 1998 as part of the state restructuring of electricity markets. The legislation was passed in response to the Federal Energy Regulatory Commission’s (“FERC”) recommendations following passage of the federal Energy Policy Act of 1992, which removed barriers to competition in the wholesale generation of the electricity markets. CAISO oversees the operation of California’s wholesale generation and transmission facilities and their control systems.

Scheduling coordinators are the intermediaries between CAISO and the utilities. Coordinators schedule with CAISO the route on the transmission grid they plan to transport electricity on behalf of the utility, showing how they match the utility’s customer requirements and supply. Coordinators undertake daily scheduling, dispatching, and energy accounting services on behalf of their clients. Utilities can incur additional CAISO charges for scheduling energy in the day-ahead hourly market that are different than the actual energy requirements.

### Discussion:

Calpine Energy Solutions, LLC (“Calpine”), is a CAISO certified scheduling coordinator and acts as the duly authorized agent of the IPUC to schedule the forecasted power to meet customer requirements. The “Confirmation for Scheduling & Settlement Services & Day Ahead Index Electricity” dated March 30, 2018, includes a table of the forecasted hourly customer requirements (“Schedule of Hourly Contract Quantities – Schedule Date:

March 29, 2018”). This “Schedule of Hourly Contract Quantities” does not match the forecasted current customer metered requirements and needs to be amended.

The revised “Schedule of Hourly Contract Quantities – Schedule Date: March 7, 2019” more closely matches the forecasted current customer metered requirements and will lower the additional CAISO charges for scheduling energy in the day-ahead hourly market that are different than the actual energy requirements.

**Fiscal Impact:**

There is no fiscal impact of this Amendment No. 1 and Calpine’s monthly fee will remain unchanged with the revised “Schedule of Hourly Contract Quantities – Schedule Date: March 7, 2019”.

**Recommendation:**

It is recommended that the IPUC approve Amendment No. 1 to the Master Purchase and Sale Agreement with Calpine Energy Solutions, LLC to update the Schedule of Hourly Contract Quantities

**Exhibit:**

- A. Amendment No. 1 to the Master Purchase and Sale Agreement dated March 28, 2019

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TH/JN/DB:jv

**EXHIBIT A**

Amendment No. 1 to the Master Purchase and Sale Agreement dated March 28, 2019

[Attached]



**AMENDMENT 1  
TO MASTER POWER PURCHASE AND SALE AGREEMENT WITH  
CALPINE ENERGY SOLUTIONS, LLC**

This Amendment No. 1 to the Master Power Purchase and Sale Agreement ("Agreement"), is made and entered into this 28th day of March, 2019, ("Effective Date") by and between the Industry Public Utilities Commission, a public body ("IPUC") and Calpine Energy Solutions, LLC, ("Consultant"). The IPUC and Consultant are hereinafter collectively referred to as the "Parties."

**RECITALS**

**WHEREAS**, on or about March 30, 2018, the IPUC approved an Agreement for Master Power Purchase and Sale ("Agreement") with Consultant, to act as agent of IPUC with California Independent System Operator for energy scheduling and trading; and

**WHEREAS**, given the "Schedule of Hourly Contract Quantities of March 29, 2018" does not match the forecasted current customer metered requirements, therefore it is necessary to replace with "Schedule of Hourly Contract Quantities – Schedule Date: March 7, 2019"; and

**WHEREAS**, for the reasons set forth herein, the Parties desire to enter into this Amendment No. 1, as set forth below.

**AMENDMENT**

**NOW, THEREFORE**, in consideration of the mutual covenants, promises and agreements set forth herein, it is agreed the aforesaid Agreement, a copy of which is attached hereto as Exhibit A, and incorporated herein by reference, shall remain in full force and effect except as otherwise hereinafter provided:

**EXHIBIT B**

Replace "Schedule of Hourly Contract Quantities – Schedule Date: March 29, 2018" with "Schedule of Hourly Contract Quantities – Schedule Date: March 7, 2019"

IN WITNESS WHEREOF, the Parties have executed this Amendment No. 1 to the Agreement as of the Effective Date.

**“IPUC”**  
**INDUSTRY PUBLIC UTILITIES**  
**COMMISSION**

**“CONSULTANT”**  
**CALPINE ENERGY SOLUTIONS, LLC**

By: \_\_\_\_\_  
Troy Helling, Public Utilities Director

By: \_\_\_\_\_  
Sean Fallmer, Vice President - Regional  
Pricing and Supply

**Attest:**

By: \_\_\_\_\_  
Julie Gutierrez-Robles, Deputy Commission Secretary

**APPROVED AS TO FORM**

By: \_\_\_\_\_  
James M. Casso, General Counsel

**SCHEDULE OF HOURLY CONTRACT QUANTITIES**

Between Calpine Energy Solutions, LLC ("Seller")

And Industry Public Utilities Commission ("Buyer")

As of March 30, 2018 ("Effective Date")

Confirmation Date: March 30, 2018

Schedule Date: March 7, 2019

This Schedule of Hourly Contract Quantities supplements the Confirmation for Scheduling & Settlement Services and Day Ahead Index Electricity referenced above and supersedes the Schedule of Hourly Contract Quantities with the Schedule Date March 29, 2018 effective April 1, 2019.

The Contract Price relates to the Contract Quantities (in MWs) at (choose one)  the Delivery Point  Buyer's Meter.

**WEEKDAYS**

Month	HE1	HE2	HE3	HE4	HE5	HE6	HE7	HE8	HE9	HE10	HE11	HE12	HE13	HE14	HE15	HE16	HE17	HE18	HE19	HE20	HE21	HE22	HE23	HE24
January	4.2	3.7	3.6	3.7	4.0	4.5	5.2	5.4	5.7	5.8	5.8	5.7	5.8	5.8	5.8	5.9	6.0	6.1	5.7	5.4	5.2	5.1	4.7	4.3
February	4.3	3.7	3.5	3.7	4.0	4.5	5.1	5.3	5.5	5.6	5.7	5.8	6.0	6.1	6	6.2	6.3	6.4	6.1	5.7	5.5	5.4	5	4.7
March	4.3	3.8	3.6	3.8	4.0	4.4	5.00	5.3	5.5	5.5	5.6	5.6	5.8	5.9	6.0	6.0	6.1	6	5.7	5.6	5.5	5.3	4.9	4.6
April	4.5	4.0	3.8	4.1	4.3	4.6	5.0	5.3	5.6	5.6	5.7	5.8	6.0	6.1	6.1	6.2	6.3	6.1	5.7	5.7	5.7	5.6	5.2	4.8
May	4.5	3.9	3.8	4.1	4.3	4.6	4.9	5.3	5.6	5.7	5.8	5.9	6.1	6.1	6.2	6.2	6.2	6.0	5.6	5.6	5.7	5.7	5.3	4.9
June	5.1	4.5	4.3	4.5	4.6	5.1	5.4	5.9	6.2	6.3	6.3	6.3	6.5	6.6	6.7	6.8	6.7	6.5	6.2	6.1	6.3	6.3	5.9	5.6
July	5.0	4.4	4.2	4.4	4.5	5.1	5.4	5.8	6.1	6.1	6.2	6.2	6.4	6.4	6.5	6.6	6.4	6.2	5.9	5.9	6.0	6.2	5.8	5.4
August	5.2	4.6	4.4	4.6	4.9	5.6	5.9	6.3	6.7	6.6	6.6	6.6	6.7	6.8	6.9	7.0	6.8	6.6	6.4	6.4	6.4	6.2	6.0	5.6
September	5.0	4.5	4.2	4.4	4.8	5.3	5.7	6.0	6.3	6.4	6.5	6.5	6.7	6.7	6.8	6.9	6.9	6.8	6.5	6.6	6.5	6.4	5.9	5.5
October	4.5	3.9	3.8	4.0	4.3	4.9	5.4	5.6	5.8	5.9	6.0	6.1	6.3	6.4	6.5	6.5	6.4	6.3	6.0	5.9	5.6	5.5	5.1	4.8
November	4.2	3.7	3.6	3.9	4.3	4.9	5.2	5.5	5.7	5.6	5.7	5.9	6.1	6.1	6.3	6.3	6.4	6.4	6.0	5.6	5.4	5.2	4.9	4.5
December	3.8	3.6	3.3	3.5	4.0	4.6	5.0	5.2	5.5	5.4	5.4	5.5	5.6	5.6	5.5	5.7	5.7	5.7	5.4	5	4.8	4.6	4.3	4.1

**SATURDAYS**

Month	HE1	HE2	HE3	HE4	HE5	HE6	HE7	HE8	HE9	HE10	HE11	HE12	HE13	HE14	HE15	HE16	HE17	HE18	HE19	HE20	HE21	HE22	HE23	HE24
January	3.0	2.8	2.8	2.9	2.9	3.2	3.5	3.2	3.1	3.1	3.1	3.1	3.1	3.1	3.0	2.9	3.0	3.4	3.4	3.1	2.9	2.9	2.6	2.5
February	4.1	3.7	3.6	3.8	3.7	4.1	4.3	4.0	3.8	3.8	3.9	4.0	3.9	3.9	3.9	3.8	3.9	4.1	4.3	4.2	3.8	3.5	3.3	3.1
March	4.0	3.7	3.5	3.5	3.7	4.0	4.1	3.9	3.8	3.6	3.5	3.5	3.5	3.6	3.6	3.7	3.7	3.8	4.0	4.2	3.9	3.6	3.4	3.2

April	4.4	4.0	3.9	4.0	4.0	4.2	4.2	4.0	3.9	3.8	3.8	3.8	3.8	3.8	3.8	3.7	3.8	3.9	3.9	4.0	4.1	3.9	3.7	3.5
May	4.5	4.1	4.0	4.1	4.0	4.1	4.2	4.0	3.9	3.8	3.8	3.8	3.9	3.9	3.9	3.8	3.8	3.9	3.9	4.0	4.3	4.1	3.8	3.5
June	5.0	4.5	4.2	4.2	4.2	4.5	4.6	4.6	4.6	4.4	4.4	4.5	4.6	4.6	4.6	4.5	4.5	4.4	4.3	4.2	4.5	4.6	4.4	4.2
July	5.0	4.5	4.4	4.4	4.6	4.9	4.7	4.5	4.6	4.6	4.7	4.7	4.9	4.9	4.7	4.7	4.7	4.5	4.4	4.4	4.7	4.8	4.5	4.2
August	5.2	4.6	4.3	4.3	4.5	4.7	4.8	4.6	4.6	4.5	4.6	4.8	4.9	4.8	4.7	4.7	4.6	4.5	4.3	4.3	4.6	4.6	4.4	4.1
September	5.0	4.4	4.1	4.1	4.1	4.5	4.8	4.6	4.6	4.4	4.5	4.6	4.7	4.7	4.8	4.7	4.6	4.6	4.4	4.6	4.6	4.7	4.3	4.0
October	3.6	3.3	3.1	3.3	3.3	3.5	3.7	3.5	3.3	3.3	3.4	3.5	3.6	3.6	3.5	3.5	3.5	3.4	3.4	3.5	3.5	3.4	3.1	3.0
November	3.7	3.6	3.4	3.6	3.8	4.3	4.4	4.2	4.0	3.8	3.8	3.9	3.9	3.9	3.9	3.8	3.9	4.1	4.0	3.9	3.9	3.8	3.6	3.5
December	3.4	3.3	3.2	3.5	3.8	4.2	4.3	4.0	4.0	3.7	3.8	3.8	3.7	3.6	3.5	3.3	3.5	4.0	3.7	3.5	3.3	3.2	3.1	3.0

**SUNDAYS & NERC Holidays**

Month	HE1	HE2	HE3	HE4	HE5	HE6	HE7	HE8	HE9	HE10	HE11	HE12	HE13	HE14	HE15	HE16	HE17	HE18	HE19	HE20	HE21	HE22	HE23	HE24
January	2.4	2.4	2.4	2.6	2.7	2.9	2.9	2.7	2.7	2.7	2.8	2.8	2.8	2.8	2.7	2.8	2.9	3.4	3.4	3.4	3.3	3.2	3.1	3.0
February	3.0	2.8	2.7	2.8	2.8	3.2	3.3	3.0	3.1	3.1	3.3	3.4	3.6	3.7	3.8	3.8	3.9	4.2	4.3	4.2	4.0	3.9	3.8	3.8
March	3.0	2.9	2.8	2.8	2.8	3.0	3.1	2.8	2.7	2.8	3.0	3.1	3.1	3.2	3.3	3.4	3.4	3.6	3.7	4.1	4.0	3.7	3.6	3.5
April	3.2	3.2	3.1	3.4	3.4	3.5	3.4	3.1	3.2	3.2	3.4	3.6	3.6	3.7	3.8	3.8	3.9	3.9	4.0	4.2	4.3	4.2	4.1	3.9
May	3.3	3.3	3.3	3.5	3.5	3.4	3.2	3.1	3.2	3.2	3.3	3.4	3.5	3.6	3.7	3.7	3.7	3.8	3.8	3.9	4.2	4.1	3.8	3.7
June	3.8	3.5	3.3	3.4	3.5	3.5	3.5	3.5	3.8	3.8	4.1	4.1	4.3	4.4	4.4	4.5	4.5	4.6	4.5	4.6	4.9	4.9	4.8	4.7
July	3.8	3.7	3.7	3.8	4.0	3.9	3.7	3.7	3.8	4.0	4.2	4.2	4.4	4.4	4.5	4.4	4.4	4.6	4.6	4.6	4.8	4.8	4.7	4.4
August	3.9	3.6	3.7	4.0	4.0	4.0	3.9	3.9	4.1	4.3	4.4	4.5	4.6	4.7	4.7	4.7	4.7	4.8	4.8	4.8	5.0	5.0	4.9	4.5
September	3.7	3.5	3.4	3.4	3.5	3.6	3.7	3.5	3.6	3.7	4.0	4.1	4.3	4.4	4.5	4.4	4.4	4.4	4.3	4.5	4.6	4.5	4.3	4.1
October	2.9	2.7	2.6	2.8	2.9	3.0	3.1	2.9	2.9	2.9	3.1	3.1	3.2	3.2	3.4	3.4	3.4	3.4	3.6	3.6	3.6	3.5	3.4	3.4
November	3.4	3.2	3.0	3.0	3.2	3.3	3.4	3.2	3.1	3.1	3.3	3.4	3.4	3.5	3.6	3.6	3.8	4.2	4.1	4.1	4.1	4.0	3.9	3.8
December	2.9	3.0	2.8	2.9	3.2	3.3	3.3	3.1	3.1	3.0	3.0	3.1	3.1	3.2	3.3	3.4	3.6	4.0	4.0	4.0	4.0	3.9	3.7	3.6

**Calpine Energy Solutions, LLC**

Sign:  \_\_\_\_\_

Print: Sean Fallmer

Title: VP Regional Pricing and Supply

**INDUSTRY PUBLIC UTILITIES COMMISSION**

Sign: \_\_\_\_\_

Print: \_\_\_\_\_

Title: \_\_\_\_\_

**EXHIBIT A TO AMENDMENT NO. 1:**

**TO MASTER POWER PURCHASE AND SALE AGREEMENT WITH  
CALPINE ENERGY SOLUTIONS, LLC DATED MARCH 30, 2018**

**MASTER POWER PURCHASE AND SALE AGREEMENT  
COVER SHEET**

This *Master Power Purchase and Sale Agreement* (“*Master Agreement*”) is made as of the following date: March 30, 2018 (“*Effective Date*”). The *Master Agreement*, together with the exhibits, schedules and any written supplements hereto, the Party A Tariff, if any, the Party B Tariff, if any, any designated collateral, credit support or margin agreement or similar arrangement between the Parties and all Transactions (including any confirmations accepted in accordance with Section 2.3 hereto) shall be referred to as the “*Agreement*.” The Parties to this *Master Agreement* are the following:

Calpine Energy Solutions, LLC (“*Calpine*” or “*Party A*”)      Industry Public Utilities Commission (“*IPUC*” or “*Party B*”)

**All Notices:**

Street: 401 West A Street, Suite 500

City: San Diego, CA    Zip: 92101

Attn: Contract Administration  
Facsimile: (619) 684-8251  
[CSContracts@calpinesolutions.com](mailto:CSContracts@calpinesolutions.com)  
Duns: 96-825-4276  
Federal Tax ID Number: 77-0212977

**All Notices:**

Street: 15625 E. Stafford

City: City of Industry                      Zip: 91744

Attn: Contract Administration  
Phone: 626-333-2211  
Facsimile: 626-961-6795  
Duns: 07-88-24471  
Federal Tax ID Number: 95-6006023

**Invoices:**

Attn: Wholesale Settlements  
Phone: (619) 684-8268  
Facsimile: (619) 684-8380  
Email: [wholesalesettlements@calpinesolutions.com](mailto:wholesalesettlements@calpinesolutions.com)

**Invoices:**

Attn: Accounts Payable  
Phone: 626-333-2211  
Facsimile: 626-961-6795  
Email: [coiap@cityofindustry.org](mailto:coiap@cityofindustry.org)

**Confirmations:**

Attn: Confirmations  
Phone: (619) 684-8250  
Facsimile: (866) 565-8450  
Email: [CSConfirmations@calpinesolutions.com](mailto:CSConfirmations@calpinesolutions.com)

**Confirmations:**

Attn: Industry Public Utilities Commission  
Phone: 626-498-2494  
Facsimile: 626-961-6795

**Scheduling:**

Attn: Energy Commodity Operations  
Phone: (619) 684-8184  
Facsimile: (619) 684-8365  
Email: [CSPowerScheduling@calpinesolutions.com](mailto:CSPowerScheduling@calpinesolutions.com)

**Scheduling:**

Attn: Industry Public Utilities Commission  
Phone: 626-498-2494  
Facsimile: 626-961-6795

**Payments:**

Attn: Wholesale Settlements  
Phone: (619) 684-8268  
Facsimile: (619) 684-8380  
Email: [wholesalesettlements@calpinesolutions.com](mailto:wholesalesettlements@calpinesolutions.com)

**Payments:**

Attn: Industry Public Utilities Commission  
Phone: 626-498-2494  
Facsimile: 626-961-6795

**Wire Transfer:**

BNK: JPMorgan Chase Bank, N.A.  
ABA: 021000021  
ACCT: 496581302

**Wire Transfer:**

BNK: Wells Fargo Bank, N.A  
ABA: 121000248  
ACCT: 3418109702

**Credit and Collections:**

Attn: Credit Risk  
Phone: (619) 684-8284  
Email (Notice): [CSCreditRisk@calpinesolutions.com](mailto:CSCreditRisk@calpinesolutions.com)

With additional Notices of an Event of Default or  
Potential Event of Default to:

Attn: Legal Department  
Facsimile: (619) 684-8350  
Email: [CSLegal@calpinesolutions.com](mailto:CSLegal@calpinesolutions.com)

**Credit and Collections:**

Attn: Susan Paragas, Director of Finance  
Phone: 626-333-2211, Ext. 120  
Facsimile: 626-961-6795

With additional Notices of an Event of Default or  
Potential Event of Default to:

Attn: Susan Paragas, Director of Finance  
Phone: 626-333-2211, Ext. 120  
Facsimile: 626-961-6795

The Parties hereby agree that the General Terms and Conditions are incorporated herein, and to the following provisions as provided for in the General Terms and Conditions:

Party A Tariff      Tariff: FERC      Dated: Feb. 15, 2017      Docket Number: ER17-696-000

Party B Tariff      Tariff: \_\_\_\_\_      Dated: \_\_\_\_\_      Docket Number: \_\_\_\_\_

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**Article Two**

Transaction Terms and Conditions       Optional provision in Section 2.4. If not checked, inapplicable.

---

**Article Four**

Remedies for Failure to Deliver or Receive       Accelerated Payment of Damages. If not checked, inapplicable.

---

**Article Five**

Events of Default; Remedies

Cross Default for Party A:

Party A:      Cross Default Amount: \_\_\_\_\_

Other Entity: Calpine Corporation      Cross Default Amount: \$100,000,000.00

Cross Default for Party B:

Party B:      Cross Default Amount: \_\_\_\_\_

Other Entity:      Cross Default Amount: \_\_\_\_\_

5.6 Closeout Setoff

Option A (Applicable if no other selection is made.)

Option B - Affiliates shall have the meaning set forth in the Agreement unless otherwise specified as follows: \_\_\_\_\_

Option C (No Setoff)

---

**Article Eight**

Credit and Collateral Requirements

8.1 Party A Credit Protection:

(a) Financial Information:

Option A

Option B Specify: \_\_\_\_\_

Option C Specify: \_\_\_\_\_

(b) Credit Assurances:

Not Applicable

Applicable

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(c) Collateral Threshold:

- Not Applicable
- Applicable

If applicable, the provisions of Section 8.1 (c) of the Agreement shall be replaced by the provisions of the Collateral Annex attached hereto.

(d) Downgrade Event:

- Not Applicable
- Applicable

If applicable, complete the following:

- It shall be a Downgrade Event for Party B if Party B's Guarantor's Credit Rating falls below \_\_\_\_\_ from S&P and \_\_\_\_\_ from Moody's or if Party B's Guarantor is not rated by either S&P or Moody's
- Other:  
Specify:

(e) Guarantor for Party B:

Guarantee Amount: \_\_\_\_\_

8.2 Party B Credit Protection:

(a) Financial Information:

- Option A
- Option B Specify: Calpine Corporation
- Option C Specify: as available

(b) Credit Assurances:

- Not Applicable
- Applicable

(c) Collateral Threshold:

- Not Applicable
- Applicable

If applicable, the provisions of Section 8.2 (c) of the Agreement shall be replaced by the provisions of the Collateral Annex attached hereto.

(d) Downgrade Event:

- Not Applicable
- Applicable

If applicable, complete the following:

- It shall be a Downgrade Event for Party A if Party A's Guarantor's Credit Rating falls below \_\_\_\_ from S&P and \_\_\_\_ from Moody's or if Party A's Guarantor is not rated by either S&P or Moody's
- Other:

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Specify:

(e) Guarantor for Party A: Not Applicable.

Guarantee Amount: \_\_\_\_\_

---

**Article Ten**

Confidentiality  Confidentiality Applicable If not checked, inapplicable.

**Schedule M**

- Party A is a Governmental Entity or Public Power System
- Party B is a Governmental Entity or Public Power System
- Add Section 3.6. If not checked, inapplicable
- Add Section 8.6. If not checked, inapplicable

**Other Changes:** Specify, if Any: See "Other Changes" Attached Hereto

**“OTHER CHANGES” TO EEI STANDARDIZED  
MASTER POWER PURCHASE AND SALE AGREEMENT**

**ARTICLE ONE: GENERAL DEFINITIONS**

Section 1.27 is amended by deleting the word “transferable” in the first line and inserting the following after the last sentence:

“The value of the Letter of Credit shall be its principal amount (the “Value”), provided that if the Letter of Credit expires within thirty days after the date its Value is being determined, its Value shall be zero. Notwithstanding Article 8, the Secured Party need not return a Letter of Credit unless the entire principal amount is required to be returned. If a Party has delivered more than one form of Performance Assurance to the Secured Party, when a return of Performance Assurance is to be made, the Secured Party may elect which form to transfer.”

Section 1.50 is amended by deleting the words “Section 2.4” and replacing them with the words “Section 2.5”.

Section 1.51 is amended by deleting the phrase “at Buyer's option” from the fifth line and replacing it with the phrase “absent a purchase”.

Section 1.53 is amended by deleting the phrase “at Seller’s option” from the fifth line and replacing it with the phrase “absent a sale”.

**ARTICLE TWO: TRANSACTIONS TERMS AND CONDITIONS**

Section 2.1 is amended by deleting the words “orally or, if expressly required by either Party with respect to a particular Transaction,” in the second line.

Section 2.4 is amended by deleting the words “either orally or” in the seventh line.

Section 2.5 is deleted in its entirety.

**ARTICLE EIGHT: CREDIT AND COLLATERAL REQUIREMENTS**

Section 8.3 is amended by inserting the following at the end:

“All cash collateral shall bear interest calculated on a daily basis at overnight LIBID as from time to time in effect (as reported on Telerate), with the net amount of interest accrued monthly being payable on the third Business Day of the following month. Each Party shall have the free and unrestricted right to use and dispose of all cash collateral which it holds, subject only to its obligations to return such collateral if and when so required under this Agreement.”

**ARTICLE TEN: MISCELLANEOUS**

Section 10.2(viii) is amended by inserting the following after “doing,” in the seventh line:

“nor is it relying on any unique or special expertise of the other Party and it is not in any special relationship of trust or confidence with respect to the other Party,”

Section 10.6 is amended by inserting the following at the end:

"EACH PARTY SUBMITS TO THE NON-EXCLUSIVE JURISDICTION OF THE STATE AND FEDERAL COURTS LOCATED IN CALIFORNIA FOR ANY ACTION OR PROCEEDING RELATING TO THIS AGREEMENT OR ANY TRANSACTION, AND EXPRESSLY WAIVES ANY OBJECTION IT MAY HAVE TO SUCH JURISDICTION OR THE CONVENIENCE OF SUCH FORUM."

Section 10.9 is amended by (i) deleting the words "and during normal working hours" in the first and second lines, (ii) inserting the words "copies of" after the word "examine" in the second line, and (iii) deleting the words "twelve (12) months" in the ninth line and replacing them with the words "twenty-four (24) months".

The following is added as Section 10.12:

"10.12 Standard of Review/Modifications.

(a) Absent the prior mutual written agreement of all parties to the contrary, the standard of review for any proposed changes to the rates, terms, and/or conditions of service of this Agreement or any Transaction entered into thereunder, whether proposed by a Party, a non-party or FERC acting *sua sponte*, shall be the "public interest" standard of review set forth in United Gas Pipe Line Co. v. Mobile Gas Service Corp., 350 U.S. 332 (1956) and Federal Power Commission v. Sierra Pacific Power Co., 350 U.S. 348 (1956).

(b) Without limiting the generality of subsection (a), the rates, terms, and/or conditions of service specified in this Agreement or any Transaction entered into thereunder shall remain in effect for the entire term of the Agreement and shall not be subject to either prospective or retroactive revision through application or complaint to FERC pursuant to sections 205, 206, or 306 of the Federal Power Act, or any other provisions of the Federal Power Act, absent the prior written agreement of all Parties hereto."

The following is added as Section 10.13:

"10.13 Insurance. Without limiting Party A's indemnification obligations to Party B under the Agreement, Party A shall obtain, provide and maintain, at its own expense, policies of insurance as described below."

(a) **General liability insurance.** Party A shall maintain commercial general liability insurance with coverage at least as broad as Insurance Services Office form CG 00 01, in an amount not less than \$1,000,000.00 per occurrence, \$2,000,000.00 general aggregate, for bodily injury, personal injury, and property damage. The policy must include contractual liability that has not been amended. Any endorsement restricting standard ISO "insured contract" language will not be accepted.

(b) **Automobile liability insurance.** Party A shall maintain automobile insurance at least as broad as Insurance Services Office form CA 00 01 covering bodily injury and property damage for all activities of Party A arising out of or in connection with services to be performed under this Agreement, including coverage for any owned, hired, non-owned or rented vehicles, in an amount not less than \$1,000,000.00 combined single limit for each accident.

(c) **Professional liability (errors & omissions) insurance.** Party A shall maintain professional liability insurance that covers the services to be performed in connection with this Agreement, in the minimum amount of \$1,000,000 per claim and in the aggregate. Party A agrees to maintain continuous coverage through a period no less than three years after the termination of this Agreement.

(d) **Workers' compensation insurance.** Party A shall maintain Workers' Compensation Insurance (Statutory Limits) and Employer's Liability Insurance (with limits of at least \$1,000,000.00). Party A shall submit to Party B, along with the certificate of insurance, a Waiver of

Subrogation blanket endorsement in favor of Party B and its elected or appointed officers, agents, officials, employees, volunteers, and attorneys (collectively, the "Indemnified Parties").

(e) **Proof of insurance.** Party A shall provide certificates of insurance to Party B as evidence of the insurance coverage required herein, along with a waiver of subrogation endorsement for workers' compensation. Insurance certificates and endorsement must be approved by Party B's Risk Manager prior to providing any services. Current certification of insurance shall be kept on file with Party B.

(f) **Duration of coverage.** Party A shall procure and maintain insurance against claims for injuries to persons or damages to property, which may arise from or in connection with the performance of the services hereunder by Party A or its agents, representatives, employees, vendors, subcontractors, and/or subconsultants.

(g) **Primary/noncontributing.** Coverage provided by Party A shall be primary, and any insurance or self-insurance procured or maintained by Party B shall not be required to contribute with it. The limits of insurance required herein may be satisfied by a combination of primary and umbrella or excess insurance. Any umbrella or excess insurance shall contain or be endorsed to contain a provision that such coverage shall also apply on a primary and non-contributory basis for the benefit of Party B and the Indemnified Parties before Party B's or any Indemnified Parties' own insurance or self-insurance shall be called upon to protect it as a named insured.

(h) **Party B's rights of enforcement.** In the event any policy of insurance required under this Agreement does not comply with these specifications or is canceled and not immediately replaced, Party B has the right but not the duty to obtain the insurance it deems necessary, and any premium paid by Party B will be promptly reimbursed by Party A, or Party B will withhold amounts sufficient to pay premium from Party A payments. In the alternative, Party B may cancel this Agreement.

(i) **Acceptable insurers.** All insurance policies shall be issued by an insurance company currently authorized by the California Insurance Commissioner to transact business of insurance in the State of California, with an assigned policyholders' Rating of A- (or higher) and Financial Size Category Class VI (or larger) in accordance with the latest edition of Best's Key Rating Guide, unless otherwise approved by Party B's Risk Manager.

(j) **Waiver of subrogation.** All insurance coverage maintained or procured pursuant to this agreement shall be endorsed (by blanket endorsement or otherwise) to waive subrogation against Party B and the Indemnified Parties or shall specifically allow Party A or others providing insurance evidence in compliance with these specifications to waive their right of recovery prior to a loss. Party A hereby waives its own right of recovery against Party B and the Indemnified Parties and shall require similar written express waivers and insurance clauses from each of its subconsultants.

(k) **Enforcement of contract provisions (non estoppel).** Party A acknowledges and agrees that any actual or alleged failure on the part of Party B to inform Party A of non-compliance with any requirement imposes no additional obligations on Party B, nor does it waive any rights hereunder or excuse any of Party A's obligations.

(l) **Requirements not limiting.** Requirements of specific coverage features or limits contained in this Section are not intended as a limitation on coverage, limits or other requirements, or a waiver of any coverage normally provided by any insurance. Specific reference to a given coverage feature is for purposes of clarification only as it pertains to a given issue and is not intended by any party or insured to be all inclusive, or to the exclusion of other coverage, or a waiver of any type.

(m) **Notice of cancellation.** Party A agrees to cause its insurance agent or broker and insurers to provide to Party B with a thirty (30) day prior notice of cancellation (except for nonpayment of premium) or nonrenewal of coverage for each required coverage.

(n) **Additional insured status.** General liability policies shall provide or be endorsed to provide that Party B and the Indemnified Parties shall be additional insureds under such policies. This provision shall also apply to any excess liability policies.

(o) **Separation of Insureds.** A severability of interests provision must apply for all additional insureds ensuring that Party A's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the insurer's limits of liability. The policy(ies) shall not contain any cross-liability exclusions.

(p) **Pass Through Clause.** Party A agrees to ensure that its subconsultants, subcontractors, and any other party involved with the project who is brought onto or involved in discharging Party A's obligations under this Agreement and/or providing the services provide insurance coverage that is reasonable and customary for the scope of services. Party A agrees to monitor and review all such coverage and assumes all responsibility for ensuring that such coverage is provided in conformity with the requirements of this section. Party A agrees that, upon request, all agreements with consultants, subcontractors, and others engaged in the project will be submitted to Party B for review.

(q) **Party B's right to revise specifications.** Party B reserves the right at any time prior to termination of the Agreement to make reasonable requests to change the amounts and types of insurance required by giving Party A ninety (90) days' advance written notice of such change. If such change results in substantial additional cost to Party A, Party B and Party A may renegotiate the allocation of the marginal cost of such changed insurance.

(r) **Self-insured retentions.** Any self-insured retentions must be declared to and approved by Party B in writing. Party B reserves the right to require that self-insured retentions be eliminated, lowered, or replaced by a deductible. Self-insurance will not be considered to comply with these specifications unless approved by Party B in writing.

(s) **Timely notice of claims.** Party A shall give Party B prompt and timely notice of claims made or suits instituted that arise out of or result from Party A's performance under this Agreement, and that involve or may involve coverage under any of the required liability policies.

(t) **Additional insurance.** Party A shall also procure and maintain, at its own cost and expense, any additional kinds of insurance, which in its own judgment may be necessary for its proper protection, provision of the services, and compliance with its obligations under this Agreement."

The following is added as Section 10.14:

"10.14 Independent Consultant.

(a) Party A is and shall at all times remain, as to Party B, a wholly independent consultant and/or independent contractor. The personnel performing the services under this Agreement on behalf of Party A shall at all times be under Party A's exclusive direction and control. Neither Party B nor any of its officers, employees, or agents shall have control over the conduct of Party A or any of Party A's officers, employees, or agents, except as set forth in this Agreement. Party A shall not at any time or in any manner represent that it or any of its officers, employees, or agents are in any manner officers, employees, or agents of Party B. Party A shall not incur or have the power to incur any debt, obligation, or liability whatever against Party B, or bind Party B in any manner.

(b) No employee benefits shall be available to Party A in connection with the performance of this Agreement. Party B shall only pay Party A pursuant to the terms and conditions set forth in each Confirmation and shall not, under any circumstances, pay any salaries, wages, or other

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compensation to Party A or any of its officers, employees, vendors, agents, and/or subcontractors. Party B shall not be liable for compensation or indemnification to Party A for death, injury, or sickness of its officers, employees, vendors, agents, and/or subcontractors arising out of performing services under the Agreement.”

The following is added as Section 10.15:

“10.15 Legal Responsibilities. Party A shall keep itself informed of state and federal laws and regulations which in any manner affect those employed by it or in any way affect the performance of services under the Agreement. Party A shall at all times observe and comply with all such laws and regulations. Neither Party B nor any of its officers and employees shall be liable at law or in equity occasioned by failure of Party A to comply with this Section 10.15.”

The following is added as Section 10.16:

“10.16 Undue Influence. Party A represents and warrants that no undue influence or pressure was used against or in concert with any officer or employee of Party B in connection with the award, terms or implementation of this Agreement, including any method of coercion, confidential financial arrangement, or financial inducement. No officer or employee of Party B has or will receive compensation, directly or indirectly, from Party A, or from any officer, employee or agent of Party A, in connection with the award of this Agreement or any work to be conducted as a result of this Agreement. Violation of this Section 10.16 shall be a material breach of this Agreement entitling Party B to any and all remedies available at law or in equity.”

The following is added as Section 10.17:

“10.17 No Benefit to Arise to Local Officers and Employees. No member, officer, or employee of Party B, or its designees or agents, and no public official who exercises authority over or responsibilities with respect to the services and/or this Agreement during his/her tenure or for one year thereafter, shall have any interest, direct or indirect, in any agreement or sub-agreement, or the proceeds thereof, for the services performed under this Agreement.”

## SCHEDULE M

Section D is amended as follows:

The first paragraph shall be deleted and replaced with the following:

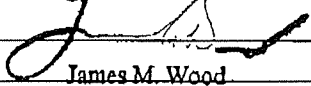
“Section 3.4 Public Power System’s Deliveries. Upon Party A’s request Governmental Entity or Public Power System shall provide the other Party hereto (i) certified copies of all ordinances, resolutions, public notices and other documents evidencing the necessary authorizations with respect to the execution, delivery and performance by Governmental Entity or Public Power System of this Master Agreement and (ii) an opinion of counsel for Governmental Entity or Public Power System, in form and substance reasonably satisfactory to the Other Party, regarding the validity, binding effect and enforceability of this Master Agreement against Governmental Entity or Public Power System in respect of the Act and all other relevant constitutional organic or other governing documents and applicable law.”

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the Parties have caused this Master Agreement to be duly executed as of the date first above written.

Calpine Energy Solutions, LLC

Industry Public Utilities Commission

By:  \_\_\_\_\_

By: \_\_\_\_\_

Name: James M. Wood

Name: \_\_\_\_\_

Title: President

Title: \_\_\_\_\_

Date : \_\_\_\_\_

Date: \_\_\_\_\_



**DISCLAIMER:** This Master Power Purchase and Sale Agreement was prepared by a committee of representatives of Edison Electric Institute ("EEI") and National Energy Marketers Association ("NEM") member companies to facilitate orderly trading in and development of wholesale power markets. Neither EEI nor NEM nor any member company nor any of their agents, representatives or attorneys shall be responsible for its use, or any damages resulting therefrom. By providing this Agreement EEI and NEM do not offer legal advice and all users are urged to consult their own legal counsel to ensure that their commercial objectives will be achieved and their legal interests are adequately protected.



**Confirmation for Scheduling & Settlement Services and Day Ahead Index Electricity**

<i>For Seller's Use Only</i>	
Trade Date	
Seller's ID	

Reference:

MASTER POWER PURCHASE AND SALE AGREEMENT  
Between Calpine Energy Solutions, LLC ("Seller")  
And Industry Public Utilities Commission ("Buyer")  
As of March 30, 2018 ("Effective Date")  
Confirmation Date: March 30, 2018

This Confirmation ("Confirmation") supplements the Master Power Purchase and Sale Agreement referred to above (the "Agreement"). The Parties hereby agree to the price arrangement, terms and conditions identified below. Capitalized terms not otherwise defined in this Confirmation shall have their meanings set forth elsewhere in the Agreement, including its exhibits, schedules and any written supplements thereto, the Party B Tariff, any designated collateral, credit support or margin agreement or similar arrangement between the Parties, and all Transactions.

1. **PRODUCT.** The Contract Price(s) for Electricity set forth in this Confirmation include each component in the table set forth below that is indicated by an [X], which are referred to herein collectively as "Electricity."

ELECTRICITY:	
(Generation Components)	
<input checked="" type="checkbox"/>	Electric Energy
<input checked="" type="checkbox"/>	Scheduling Coordinator Services
<input checked="" type="checkbox"/>	Settlement Services

Scheduling Coordinator Services includes:

Physical bidding and scheduling of interval usage with the applicable scheduling authority  
Physical scheduling of term and spot supply contracts with scheduling authority  
Ancillary services bidding and scheduling

Settlement Services includes:

Settlement reconciliation with bilateral suppliers  
Reconciliation with the applicable Transmission Provider for energy  
Settlement reconciliation detail (Shadow Settlement) to Buyer

2. **DELIVERY PERIOD.** This Confirmation shall be in full force and effect as of the Confirmation Date. The terms set forth herein shall apply from the Start Date through the End Date:

<b>Start Date:</b>	<b>End Date:</b>
April 1, 2018	March 31, 2020

3. **LOCATION AND DELIVERY POINT.**

Market Area	Supply Point	Delivery Point	Buyer's Local Utility
CAISO	EZ Gen Hub SP-15	SCE LAP	SCE

4. **PRICING.**

- 4.1 **Contract Price:** Buyer shall pay Seller the Index Price for the Contract Quantity, set forth in Section 7. Buyer shall pay Seller the Monthly Service Fee as set forth below. The Contract Price reflects the value of any Congestion Revenue Rights or Marginal Losses associated with serving Buyer's load.

Index Price (in \$/MWh)	Monthly Service Fee
CAISO Day Ahead Locational Marginal Price for the Delivery Point as published at <a href="http://www.caiso.com">www.caiso.com</a>	\$3,000

- 4.2 **Pass-Through Charges:** The Contract Price set forth above includes only the components set forth in Section One of this Confirmation. Seller shall pass through to Buyer all other RTO or Buyer's Local Utility charges associated with Electricity delivery to the Delivery Point, including, without limitation, Ancillary Services, ISO Fees, Scheduling Coordinator fees, Distribution & Transmission Losses, Unaccounted for Energy (UFE), Bid Cost Recovery and Real-Time Congestion Offset.

- 4.3 **Changes in Circumstances:**

- 4.3.1 **Accuracy of Supplied Information:** The Contract Price for Electricity, including those set forth in any Hedge Transactions, is established in reliance on the accuracy of information provided to Seller concerning Buyer's

load requirements. Seller may pass through to Buyer any incremental costs incurred by Seller as a result of inaccuracies in any such information provided to Seller.

4.3.2 If a change in Law occurs that a) re-defines or alters the congestion zone(s) where Buyers' Facilities are located or b) alters the RTO market structure or protocol design, causing additional costs to Seller due to Buyer's service, Seller may pass through such additional costs to Buyer.

4.3.3 The Contract Price, including those set forth in any Hedge Transaction, may include ancillary services, wholesale or network transmission, RTO market charges, or other services administered or provided by Buyer's RTO. Buyer acknowledges that such charges are based on the established rates, operations and/or protocols applicable to Buyer's service that are in effect as of the Confirmation Date. In the event of changes in such rates, protocols, and/or operations that cause additional costs to Seller, Seller may pass through such additional costs to Buyer.

5. **HEDGE TRANSACTIONS:** Buyer shall have the option to purchase blocks of electricity from either Seller or a third party (each a "Hedge Transaction") at any time during the Delivery Period of this Confirmation. Buyer shall communicate all third party Hedge Transactions in accordance with the attached Operating Procedures Schedule. All Hedge Transactions between Buyer and Seller shall be set forth in a separate Confirmation that is mutually agreed to by the Parties. All Hedge Transactions shall be limited to hourly fixed quantity blocks of electricity.
6. **LIMITATION OF LIABILITY:** Buyer shall be responsible for all third party Hedge Transactions. Buyer shall reimburse Seller for any costs that Seller incurs as a result of the third party Hedge Transactions and shall indemnify, defend and hold harmless Seller from and against any Claims (as defined below) arising from or out of the third party Hedge Transaction or the actions or inactions of the third party from whom Buyer purchases energy. "Claims" means all third party claims or actions, threatened or filed and, whether groundless, false, fraudulent or otherwise, and the resulting losses, damages, expenses, attorneys' fees and court costs, whether incurred by settlement or otherwise, and whether such claims or actions are threatened or filed prior to or after the termination of this Agreement.
7. **CONTRACT QUANTITY.** Seller shall service 100% of Buyer's Electricity requirements. For the purposes of calculating a Settlement Amount pursuant to the Agreement, the Buyer's Estimated Monthly Usage set forth below shall be considered the Contract Quantity. Electricity prices pursuant to this Confirmation will relate to the quantities set forth in the table below:

The Contract Price relates to the Contract Quantities at (choose one)			
<input checked="" type="checkbox"/> the Delivery Point <input type="checkbox"/> Buyer's Meter			
Month / Year	Hourly On Peak Contract Quantity (MW)	Hourly Off Peak Contract Quantity (MW)	Buyer's Estimated Monthly Usage (MWh)
January through December	See Attached Schedule of Hourly Contract Quantities	See Attached Schedule of Hourly Contract Quantities	See Attached Schedule of Hourly Contract Quantities

8. **MONTHLY SETTLEMENT AND INVOICE.** Seller shall adjust Buyer's monthly invoice as follows:
  - 8.1 **Hedge Transaction Settlement:** For Third Party Hedge Transactions, Seller shall credit Buyer's account in an amount equal to the IST credit received by the CAISO associated with the Third Party Hedge Transaction. For Hedge Transactions with Seller, Seller shall credit Buyer's account in an amount equal to the Index Price multiplied by the Hedge Transaction Quantity associated with the Hedge Transaction with Seller.
  - 8.2 **Usage Above the Contract Quantity:** If Buyer's usage at the Delivery Point exceeds the Contract Quantity during any hour, Buyer shall pay Seller at the CAISO Real Time Locational Marginal Price for the Delivery Point as published at www.caiso.com, plus related delivery costs, for such hour.
  - 8.3 **Usage Below the Contract Quantity:** If Buyer's usage at the Delivery Point is less than the Contract Quantity during any hour, Seller shall credit Buyer's account at the CAISO Real Time Locational Marginal Price for the Delivery Point as published at www.caiso.com less any applicable RTO charges for each MWh below the Contract Quantity.
9. **DEMAND RESPONSE.** If Buyer participates in any demand response programs, Buyer shall notify Seller and reimburse Seller for any costs incurred by Seller as a result of Buyer's participation.
10. **CONGESTION REVENUE RIGHTS.** Seller shall be entitled to all CRRs associated with Buyer's load.
11. **MARGINAL LOSSES.** Seller shall be entitled to all Marginal Losses associated with Buyer's load.

As amended herein, all other Terms and Conditions contained in the Agreement remain in full force and effect.

<p>This Confirmation is subject to the Schedule(s) identified below and that are attached hereto:          Schedule of Hourly Contract Quantities and Operating Procedures Schedule</p>
---

**Calpine Energy Solutions. LLC**

Sign: 

Print: Doug Johnson

Title: VP Regional Pricing and Supply

**INDUSTRY PUBLIC UTILITIES COMMISSION**

Sign: 

Print: Mark D. Radecki

Title: Mayor

SCHEDULE OF HOURLY CONTRACT QUANTITIES

Schedule Date: March 29, 2018

The Contract Price relates to the Contract Quantities (in MWs) at (choose one)  the Delivery Point  Buyer's Meter.

WEEKDAYS

Month	HE1	HE2	HE3	HE4	HE5	HE6	HE7	HE8	HE9	HE10	HE11	HE12	HE13	HE14	HE15	HE16	HE17	HE18	HE19	HE20	HE21	HE22	HE23	HE24
January	2.6	2.7	2.5	2.5	2.6	2.9	3.2	3.3	3.5	3.5	3.6	3.5	3.6	3.7	3.7	3.8	3.8	3.8	3.6	3.5	3.4	3.2	3.0	2.9
February	2.7	2.7	2.6	2.5	2.7	3.1	3.4	3.5	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.8	3.8	3.7	3.6	3.7	3.5	3.4	3.2	3.0
March	3.2	3.0	2.6	2.9	3.2	3.8	4.1	4.3	4.5	4.4	4.5	4.7	4.9	5.0	5.1	5.1	5.0	4.8	4.6	4.5	4.3	4.1	3.8	3.4
April	3.2	3.2	3.0	3.1	3.3	3.8	4.0	4.3	4.5	4.5	4.7	4.8	5.0	5.1	5.2	5.2	5.1	4.8	4.4	4.3	4.4	4.3	3.9	3.5
May	3.5	3.4	3.1	3.2	3.3	3.8	3.9	4.3	4.5	4.5	4.7	4.8	5.0	5.1	5.1	5.1	5.0	4.8	4.4	4.1	4.3	4.3	4.0	3.7
June	3.7	3.5	3.2	3.5	3.5	3.9	4.1	4.5	4.7	4.7	4.8	4.9	5.0	5.1	5.2	5.3	5.2	5.0	4.6	4.3	4.5	4.6	4.3	4.0
July	3.3	2.9	2.6	2.9	3.0	3.5	3.6	3.9	4.2	4.0	4.0	4.0	4.1	4.2	4.3	4.3	4.2	4.0	3.8	3.6	3.9	4.1	3.9	3.6
August	3.3	2.9	2.5	2.8	3.0	3.6	3.9	4.2	4.4	4.3	4.2	4.3	4.3	4.4	4.4	4.4	4.3	4.1	3.8	3.7	3.8	4.0	3.8	3.6
September	2.9	2.7	2.3	2.5	2.7	3.2	3.5	3.7	3.9	3.8	3.8	3.9	4.0	4.0	4.0	3.9	3.9	3.6	3.4	3.3	3.4	3.6	3.4	3.2
October	2.4	2.1	1.7	1.7	1.8	2.2	2.4	2.5	2.7	2.8	2.9	3.1	3.2	3.3	3.5	3.5	3.5	3.3	3.1	3.0	3.0	3.1	2.8	2.6
November	2.9	2.7	2.5	2.6	2.7	2.9	3.0	3.1	3.3	3.4	3.4	3.5	3.6	3.7	3.8	3.9	4.0	4.0	3.9	3.7	3.5	3.4	3.3	3.1
December	2.7	2.6	2.4	2.5	2.7	3.1	3.2	3.5	3.8	3.8	3.8	3.9	4.0	4.0	3.6	3.6	3.7	3.7	3.7	3.6	3.4	3.3	3.2	3.0

SATURDAYS

Month	HE1	HE2	HE3	HE4	HE5	HE6	HE7	HE8	HE9	HE10	HE11	HE12	HE13	HE14	HE15	HE16	HE17	HE18	HE19	HE20	HE21	HE22	HE23	HE24
January	2.6	2.7	2.5	2.4	2.4	2.6	2.8	2.6	2.5	2.5	2.6	2.6	2.6	2.6	2.4	2.4	2.5	2.7	2.7	2.7	2.6	2.5	2.4	2.3
February	2.8	2.8	2.6	2.3	2.4	2.7	2.8	2.6	2.6	2.5	2.6	2.6	2.6	2.5	2.5	2.5	2.5	2.6	2.7	2.9	2.8	2.6	2.5	2.4
March	2.6	2.5	2.3	2.5	2.7	3.1	3.1	3.1	3.0	2.7	2.7	2.8	2.9	2.8	2.7	2.6	2.6	2.8	2.9	3.0	2.8	2.7	2.4	2.3
April	2.8	2.8	2.7	2.9	2.9	3.2	3.1	2.9	2.7	2.7	2.7	2.8	2.9	2.9	2.7	2.6	2.7	2.7	2.5	2.7	2.9	2.9	2.6	2.4
May	3.0	3.1	3.0	3.1	2.8	3.1	3.2	3.2	3.2	3.0	3.1	3.1	3.1	3.1	3.0	2.8	2.8	2.7	2.6	2.6	2.9	2.9	2.7	2.4

June	3.6	3.4	3.3	3.6	3.5	3.6	3.5	3.8	3.6	3.6	3.6	3.8	3.8	3.7	3.6	3.4	3.4	3.3	3.1	3.0	3.2	3.4	3.2	2.9
July	3.0	2.8	2.7	3.0	2.9	3.1	3.0	2.9	2.7	2.4	2.4	2.4	2.5	2.5	2.5	2.4	2.4	2.4	2.2	2.1	2.4	2.7	2.6	2.3
August	2.9	2.7	2.5	2.5	2.4	2.8	2.8	2.6	2.5	2.3	2.2	2.2	2.3	2.3	2.3	2.2	2.3	2.2	2.1	2.0	2.3	2.6	2.5	2.2
September	2.7	2.4	2.2	2.3	2.2	2.7	2.8	2.6	2.5	2.3	2.2	2.3	2.4	2.4	2.3	2.1	2.2	2.1	2.0	2.0	2.2	2.4	2.3	2.2
October	2.0	1.7	1.6	1.7	1.7	2.0	2.0	1.8	1.8	1.8	1.9	2.0	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.2	2.3	2.2	2.0
November	2.6	2.5	2.4	2.4	2.5	2.8	2.8	2.8	2.8	2.7	2.7	2.8	2.9	3.0	2.9	2.9	2.9	3.0	3.1	3.0	2.9	2.8	2.8	2.6
December	2.6	2.3	2.3	2.4	2.4	2.7	2.7	2.6	2.6	2.5	2.5	2.6	2.6	2.6	2.6	2.4	2.5	2.7	2.8	2.8	2.7	2.6	2.6	2.5

**SUNDAYS**

Month	HE1	HE2	HE3	HE4	HE5	HE6	HE7	HE8	HE9	HE10	HE11	HE12	HE13	HE14	HE15	HE16	HE17	HE18	HE19	HE20	HE21	HE22	HE23	HE24
January	2.2	2.3	2.3	2.2	2.2	2.3	2.3	2.2	2.1	2.2	2.3	2.3	2.3	2.3	2.4	2.4	2.5	2.7	2.7	2.7	2.7	2.6	2.5	2.4
February	2.4	2.5	2.4	2.2	2.2	2.3	2.3	2.2	2.2	2.2	2.2	2.3	2.4	2.4	2.4	2.5	2.5	2.6	2.7	2.9	2.7	2.6	2.5	2.5
March	2.1	2.2	2.1	1.9	2.0	2.1	2.1	2.0	1.9	2.0	2.1	2.2	2.3	2.4	2.5	2.5	2.5	2.7	2.9	3.1	3.0	2.9	2.9	2.8
April	2.1	2.2	2.2	2.3	2.4	2.4	2.2	2.0	2.0	2.0	2.2	2.3	2.4	2.5	2.5	2.6	2.5	2.7	2.7	2.8	3.0	3.0	2.8	2.6
May	2.3	2.5	2.5	2.6	2.5	2.4	2.2	2.2	2.2	2.2	2.3	2.4	2.5	2.6	2.6	2.6	2.6	2.7	2.7	2.8	3.0	3.0	2.8	2.6
June	2.6	2.6	2.5	2.6	2.8	2.8	2.6	2.6	2.7	2.7	2.9	3.0	3.1	3.2	3.1	3.1	3.1	3.3	3.2	3.1	3.4	3.6	3.4	2.9
July	2.1	2.2	2.2	2.4	2.4	2.3	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.3	2.3	2.2	2.2	2.4	2.3	2.3	2.7	3.0	2.9	2.7
August	2.1	2.0	2.0	2.2	2.2	2.3	2.1	2.0	2.1	2.0	2.1	2.2	2.3	2.2	2.2	2.2	2.1	2.3	2.2	2.3	2.6	3.0	3.0	2.9
September	2.0	1.8	1.7	1.9	2.0	2.2	2.1	2.0	2.1	2.0	2.0	2.2	2.3	2.2	2.2	2.1	2.1	2.2	2.0	2.2	2.5	2.8	2.7	2.6
October	1.7	1.6	1.4	1.4	1.4	1.6	1.6	1.5	1.5	1.5	1.6	1.7	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.1	2.2	2.2	2.1
November	2.3	2.2	2.2	2.2	2.3	2.4	2.4	2.3	2.4	2.5	2.6	2.6	2.6	2.6	2.6	2.7	2.7	3.0	3.0	3.0	3.0	2.8	2.8	2.9
December	2.2	2.1	2.1	2.1	2.1	2.2	2.3	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.5	2.6	2.6	2.6	2.5	2.4	2.2

Calpine Energy Solutions, LLC

Sign: 

Print: Doug Johnson

Title: VP Regional Pricing and Supply

INDUSTRY PUBLIC UTILITIES COMMISSION

Sign: 

Print: Mark D. Radecki

Title: Mayor

*INDUSTRY PUBLIC UTILITIES COMMISSION*

ITEM NO. 5.6





# INDUSTRY PUBLIC UTILITIES COMMISSION

## MEMORANDUM

**TO:** Honorable President Radecki and Commission Board Members

**STAFF:** Troy Helling, Public Utilities Director *TH*

**FROM:** Joshua Nelson, Contract IPUC Engineer, CNC Engineering *JN*  
Dev Birla, Operations Manager – Electric Utility, CNC Engineering *D. D. B.*

**DATE:** March 28, 2019

**SUBJECT:** Consideration and approval of the IPUC Energy Efficiency Program to fund investments in certain designated public benefits programs for an amount not-to-exceed \$307,000 through March 1, 2021

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### Background

Assembly Bill (AB) 1890, the California electric restructuring law that became effective in 1996, requires publicly-owned electric utilities (“POUs”) to establish a non-bypassable usage-based charge (“public purpose program charge” or “PPPC”) to fund investments in certain designated public benefits programs. Most POUs calculate the PPPC as 2.85% of the revenues received from customers. Through December 31, 2018, IPUC has collected \$1,512,184.24 in PPPCs from customers. These funds are separate from IPUC operating revenues and reserved solely for the purpose of funding eligible programs, projects and activities in accordance with the California Public Utilities Code sections 385(a). Eligible programs, projects and activities include:

- Cost-effective demand-side management services to promote energy efficiency and conservation;
- New investment in renewable energy resources and technologies;
- Research, development and demonstration programs for public interest to advance science and technologies which are not adequately provided by competitive and regulated markets; and
- Services provided to low-income electricity customers.

The proposed Energy Efficiency (“EE”) Program contained in Exhibit A outlines the parameters for customers to receive services and rebates/incentives for the installation of eligible energy savings measures, equipment or systems, and for IPUC to receive payment for eligible projects and activities that benefit IPUC customers through energy

efficiency, conservation or reduce peak-demand. The proposed EE Program includes the following six categories: 1) Energy Audits; 2) Lighting Incentives; 3) Construction Incentives; 4) Energy Demand Reduction; 5) Custom Energy Efficiency Incentives; and 6) IPUC Energy Efficiency Measures. Each of the EE Program Categories have been developed to assist IPUC and its customers with implementing cost-effective and feasible energy efficiency projects that can contribute to the statewide goal of reducing greenhouse gas emissions to 1990 levels by 2020, as established by the California Air Resources Board under the Global Warming Solutions Act of 2006. Expenditures and efficiency savings for each of the EE Program Categories will be tracked individually for the purpose of reporting electricity savings according to regulatory requirements, and for monitoring customer acceptance/satisfaction. This monitoring, combined with the results of customer energy audits, will be useful for the purpose of modifying existing and/or developing new EE Program Categories as may be necessary to improve IPUC customer participation and improve their potential for additional energy efficiency savings.

All payments issued under the program are limited to the availability of funds; installed equipment must be new with a useful life of at least five years; and all customer accounts must be in good standing in order to be eligible to participate. Customers are encouraged to apply for pre-approval in advance of installing efficiency measures to verify eligibility and reserve funding. Energy efficiency projects completed in IPUC's current fiscal year prior to the date of application are also eligible for reimbursement. However, applications submitted on a reimbursable basis will have a lower priority than applications submitted in advance of installation and remain subject to funding availability and all other relevant documentation and verification requirements.

The EE Program IPUC developed is well balanced with the intention to benefit every IPUC customer and is described in Exhibit A. The proposed EE Program budget for the next two years is \$307,000: which include \$126,000 for the proposed IPUC Representative implementation of the EE Program; \$131,000 for direct rebates or incentives to the customers; and \$50,000 for administration of the EE Program and IPUC energy efficient measures. There are currently sixty-seven Large General Service customers with more than 20 kW demand; eighteen General Service customers with less than 20 kW demand; and sixteen residential customers.

For Large General Service customers the EE Program will include: the American Society of Heating, Refrigeration and Air-Conditioning Engineers ("ASHRAE") Level I, II and III audits; lighting incentive program; customized incentive for non-lighting loads; and construction incentive for new construction up to 25% of cost difference between standard and upgraded equipment and/or materials. These programs are estimated to cost up to \$213,000 and with the limit of \$25,000 per customer over the next two 2 years.



For General Service customers the EE Programs include energy surveys and installation of energy efficient measures such as: air-conditioning tune-ups; energy efficient lighting; heating/ventilation/air-conditioning filter replacement; and pumps and motor replacement. These programs are estimated to cost up to \$28,000 over the next two years.

For residential customers the EE Programs include rebate program for energy efficient appliances: such as refrigerators; washers; and smart thermostats; and installation of energy efficient measures such: as air-conditioning tune-ups; energy efficient lighting; heating/ventilation/air-conditioning filter replacement; and programmable thermostats. These programs are estimated to cost up to \$16,000 over the next two years.

IPUC projects include payment for projects/activities that promote energy efficiency measures, conservation or reduce peak-demand. Payment for eligible projects must be authorized by the IPUC Board and shall not exceed \$10,000 per year.

Table 1 shows the breakdown of each proposed program and the associated allocated budget for the next two years. In order to get the maximum participation from the customers and benefit the maximum number of customers, it will require flexibility to exceed amount in some programs and use less amount in other programs as long as the total amount does not exceed \$307,000 in next two years.

**Table 1. Program Breakdown Summary**

Program Name	Program Description	IPUC Representative Contract	Customer Rebates	IPUC
<b>Large General Service</b>				
1. Energy Audits	ASHRAE Level I, II or III Energy Audits	\$86,000		
2. Lighting Incentives	Energy efficiency lighting rebates equal to one-year energy saving @ \$0.125/kWh.		\$50,000	
3. Customized Incentives	Non-lighting energy efficiency rebates equal to one-year energy savings @ \$0.125/kWh and \$150/kW for each on-		\$50,000	

	peak kW that has been reduced.			
4. Construction Incentives	Construction projects that include equipment components that exceed baseline energy performance standards by more than 10%. The EE Program payment is 25% of the cost difference between standard and upgraded equipment and/or materials.		\$27,000	
<b>General Service</b>				
1. Energy Surveys	Energy survey of existing facilities and financial feasibility of recommended energy efficiency measures.	\$10,000		
2. Direct Install	Installation of energy efficiency equipment with rebates up to \$1,000 per customer.	\$18,000		
<b>Domestic Service</b>				
1. Direct Install	Energy survey and allowances up to \$500 every two years for qualified expenditures.	\$12,000		
2. Rebate Program	Rebate up to \$250 per household for IPUC approved Energy Star® appliances.		\$4,000	
<b>IPUC Projects</b>	Payment for projects/activities that promote energy efficiency measures, conservation or reduce peak-demand.			\$20,000
<b>Program Administration</b>				\$30,000
<b>Total Budget*</b>	\$307,000	\$126,000	\$131,000	\$50,000

\*Based upon the specific needs of the IPUC customers, the Public Utility Director has the authorization to transfer the planned expenditures between programs.

As drafted the terms and conditions for the EE Program authorize the Public Utilities Director or designee to perform all acts required to administer/implement the EE Program, including but not limited to:

- Temporarily suspending the EE Program, or any component thereof, at any time;
- Reviewing and approving measurement and verification plans in the event of uncertainty in the amount energy savings associated with a project;
- Approving/pre-approving funding in an amount up to \$10,000 for projects that demonstrate an overall reduction in usage or demand according to the parameters of the EE Program; and
- Preparing/submitting recommendations to the IPUC Board approval in the event the rebate/incentive/funding associated with a particular project/activity exceeds \$10,000, or funding for a particular project not included in the original budget appropriation.

Actions specifically reserved for the IPUC Board under the proposed EE Program include:

- Approval of the cancelation or any other permanent modification to the EE Program; and
- Approval of any rebate/incentive/direct funding for a project or activity that exceeds \$10,000.

### **Discussion:**

One of the eligible expenditures of the restricted funds collected from the PPPC are energy efficiency and conservation programs. The proposed EE Program contained in Exhibit A is well balanced with the intention to benefit every customer. IPUC staff will closely monitor this program which can be fine-tuned if needed during the next two years based on the specific needs of IPUC customers.

If adopted, Exhibit A will become effective on March 1, 2019. The availability of the EE Program will be communicated to all IPUC customers and the program materials will be posted on the IPUC webpage.

### **Fiscal Impact:**

The recommended action for approval of the EE Program will have an estimated fiscal impact of \$307,000 in the next two years effective March 1, 2019 and will be funded from the restricted PPPC previously collected from customers.

### **Recommendation:**

- 1) Approve the IPUC Energy Efficiency Program in an amount not-to-exceed \$307,000.

### **Exhibit:**

- A. IPUC Energy Efficiency Programs
  - Appendix A – Energy Efficiency Program Budget
  - Appendix B – ASHRAE Energy Audit Procedures

Appendix C – General Services Energy Survey Process & Direct Install Program  
Appendix D – Domestic Direct Install & Rebate Program  
Appendix E – General Services & Domestic Direct Install Measures

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TH/JN/DB:jv

**EXHIBIT A**

IPUC Energy Efficiency Programs

## **IPUC Energy Efficiency Programs**

The Industry Public Utilities Commission (“IPUC”) Energy Efficiency (“EE”) Programs outlines the parameters for customers to receive incentives and rebates for the installation of eligible Energy Efficiency Measures (“EEMs”), equipment or systems, and for IPUC to receive payments for eligible projects that benefit IPUC customers through energy efficiency, conservation, or reduced peak-demand. EE Program payments to customers are based on expected annual energy savings, while funding for IPUC projects is based on actual project costs. The EE Program is funded by Public Purpose Program Charges billed and collected in accordance with the IPUC Schedule of Rates, as established and amended in accordance with section 7.04.060D of City of Industry Municipal Code.

### **EE Program**

Currently IPUC provides electric service to 101 customers. Sixty-seven customers with monthly maximum demand greater than 20 kilowatts (“kW”) are classified as Large General Service; eighteen non-residential customers with monthly maximum demand less than 20 kW are classified as General Service; and sixteen residential customers are classified as Domestic Service. The IPUC’s EE Program is designed to encourage energy efficient lighting systems and the exploration and implementation of energy efficient technologies. These technologies may address either equipment or operational change, and if IPUC can quantify a demand reduction and/or energy savings, there is a basis for providing an incentive or a rebate to assist the customer achieve its energy efficiency goals. The EE Program provides incentives in four program categories: Large General Service Program; General Service Program; Domestic Service Program; and IPUC EEM. The proposed EE Program budget is attached as Appendix A.

**1. Large General Service Program.** Large General Service customers are eligible to receive energy efficiency rebates based upon the annual kilowatt hour (“kWh”) savings, and or kilowatt (“kW”) peak-demand reduction, as calculated or accepted by IPUC. Customers must schedule an onsite energy audit prior to installation and onsite post verification of installation; submit an EE Program application, including energy savings calculations and paid invoices, within 90 days of the project completion. A customer is only eligible to receive up to \$25,000 over the two-year budget cycle; unless otherwise approved by the IPUC Board.

**1.1 Energy Audits:** On-site energy audits and recommendations are designed to potentially improve energy operating efficiency and reduce load requirements. IPUC Large General Service customers are eligible for one ASHRAE Level I, II, or III energy audits at no cost once every two years. The number of energy audits completed each fiscal year shall be limited based on available funding. Energy audits will be scheduled

on a first-come, first-serve basis according to the date the EE Program application is received. The energy audit procedures are attached as Appendix B.

**1.2 Lighting Incentives:** EE Program payment for the installation of energy efficiency lighting upgrades that reduce annual energy usage. A pre and post inspection is required. The EE Program payment is based on a rate of \$0.125/kWh for one year of energy savings and shall not exceed 50% of the lighting material cost.

**1.3 Customized Incentives:** EE Program payment for the installation of energy efficient equipment/technology that conserves energy and permanently reduces coincident summer/winter peak demand and exceeds state-mandated codes, federal-mandated codes, industry accepted performance standards or other baseline energy performance standards. EE Program payment is based on a rate of \$0.125/kWh for one year of energy savings and \$150/kW for each on-peak kW that has been reduced and shall not exceed 50% of the total cost associated with the equipment/materials.

**1.4 Construction Incentives:** One-time EE Program payment for construction projects that include equipment components that exceed state-mandated codes, federal-mandated codes, industry-accepted performance standards, or other baseline energy performance standards by more than 10%. The EE Program payment is based on the lesser of 25% of the cost difference between standard and upgraded equipment and/or materials.

**2. General Service Program.** General Service customers must schedule an energy survey to receive a one-time program allowance, for the installation of specified energy measures, up to \$1,000 every two years. A description of the energy survey process is included in Appendix C and a list of the direct installed measures are included in Appendix E.

**2.1 Energy Surveys:** Energy survey of General Service customer's facilities and financial feasibility of recommended energy efficiency measures.

**2.2 Direct Install Program:** This program offers a list of energy efficiency measures including: light-emitting diode ("LED") lighting upgrades; lighting controls; refrigeration upgrades; Heating/Ventilation/Air-Conditioning ("HVAC") tune-ups; and pumps and motor replacement.

**3. Domestic Service Program.** Residential customers are eligible to receive a rebate of approved Energy Star® appliances up to \$250 per residence; and program allowance for the installation of specified energy measures, up to \$500 every two years. A description of the direct installed and rebate programs is described in Appendix D and a list of the direct installed measures are included in Appendix E.

**3.1 Domestic Rebate Program:** The qualified list of IPUC approved Energy Star® appliances are included in Appendix D.

**3.2 Direct Install Program:** The Domestic Direct Install Program includes an energy survey of the residence, energy survey report and direct installed measures. This program offers a list of energy efficiency measures including: energy efficiency lighting; HVAC tune-up and filter change out; and programmable/smart thermostat.

**4. IPUC Energy Efficiency Measures.** Payment for eligible projects must be authorized by the IPUC Board and shall not exceed \$10,000 per year.

**4.1 IPUC Energy Efficiency Measures:** Payment for IPUC energy efficiency measures promote a benefit to IPUC customers in terms of energy efficiency, conservation, or reduced peak-demand.

**V. EE Program Terms and Conditions:**

1. Participants are limited to IPUC and its electric customers with all associated utility accounts in good standing.
2. The Public Utilities Director or designee reserves the right to temporarily suspend the EE Program, or any component thereof, at any time or modify measures if models are not available, included in Appendix E. However, cancellation of or any permanent modifications to the EE Program must be approved by the IPUC Board.
3. Payments issued under EE Program Categories are limited to the availability of funds on a two-year basis beginning April 15, 2019.
4. Independent of the EE Program payment, eligible energy efficiency projects must be cost effective from the customer's perspective based upon the value of total estimated energy savings over the life of the installed measures. The installed equipment must have a useful life of at least five years.
5. Demand reduction and direct energy savings attributable to energy efficiency must be evaluated by IPUC's engineering consulting firm using accepted industry calculations or energy models. Savings calculations must include product specifications, hours of operations, the derivation of baseline conditions and all other assumptions used to support estimates.
6. Energy savings can be incentivized based on calculations using existing conditions of equipment or using efficiency values based on either accepted State (California Code of Regulations Title 24) or federal standards, whichever is higher.
7. When there is uncertainty of energy savings or demand reduction, IPUC may require measurement and verification (M&V) up to two years after installation of the project. If IPUC determines that M&V is necessary, IPUC customer service will request that the



applicant prepare and submit an M&V plan for review and approval by the Public Utilities Director or designee. For projects where M&V is required, 100% of the approved rebate/incentive will be paid after the project installation is confirmed, upon the final M&V report.

8. To verify eligibility and reserve funding, initial EE Program applications must be submitted to the IPUC Electrical Utility Operations Manager and pre-approved by the Public Utilities Director or designee before equipment is installed. The EE Program application must be accompanied by the estimates of demand reduction and annual energy savings outlined in item 5 above. Upon review of the application, IPUC Electrical Utility Operations Manager will provide written notice to the applicant of pre-approval status. The funding reservation, pre-inspection, and M&V requirements, if applicable, shall be included in such notice. IPUC will arrange to conduct a pre-inspection to verify the conditions of the preexisting equipment.
9. EE Program payment requests must be submitted by the applicant, in writing, within 120 days of issuance of the pre-approval notice to prevent cancellation of the funding reservation. Written requests must be accompanied by sufficient information to document project costs and must include, at a minimum, a copy of the dated sales receipt. The sales receipt is subject to verification and must note all necessary information to properly identify the qualifying product/equipment/materials, including, but not limited to: make/model, vendor, date, and price per qualifying unit. IPUC might also conduct a post-inspection to verify the installation of the energy efficiency measure.
10. Applicants may seek IPUC reimbursement for qualified projects that were completed within the fiscal year of 2018-2019 with IPUC approval. However, EE Program applications submitted on a reimbursable basis will have a lower priority than applications submitted in advance of installation and remain subject to funding availability and receipt of all relevant documentation and verification requirements outlined herein. Therefore, IPUC offers no guarantee that the applicant will receive an EE payment if the EE Program application is submitted on a reimbursable basis.
11. Payments will only be issued to IPUC customers for projects that demonstrate an overall reduction in usage or demand as required under the appropriate EE Program Category, as determined and approved by the Public Utilities Director or designee.
12. EE Program applications are subject to pre- and post-installation inspections. Customer agrees to fully cooperate with any authorized agents of IPUC for the purpose of such inspections. Customers who are not in compliance with terms and conditions of the EE Program, or to have provided false or inaccurate information on the EE Program application will be billed up to the full amount of the rebate, as may be appropriate.

13. All equipment installed must be new (not used, refurbished, or available for resale); used at the service address listed on the EE Program application; replace existing, operational, less energy-efficiency equipment; and utilize the same fuel source as existing equipment (electric for electric, not gas for electric).
14. With the exception of IPUC Projects, rebates/incentives are based on product cost only. Labor, equipment rentals, taxes and non-material costs are excluded.
15. Individual customers may not receive EE Program incentives in excess of \$25,000 during any given two years life of the program unless recommended by IPUC staff and specifically approved by the IPUC Board. Upon approval of the incentives and rebates, the check will be issued by IPUC and should be expected to arrive to the customer no later than six weeks after.
16. Rebate checks will only be issued and mailed to the IPUC customer listed on the application for service or as indicated in an official notification subsequently submitted to IPUC in writing following the initial application for service.
17. If the Customer is not satisfied with the EE Program incentive provided, the Customer may appeal to the IPUC Board. The appeal must be submitted in writing to the IPUC Board, together with the reasons for the dispute within ten (10) days following mailing of the Public Utilities Director or designee's determination. In the absence of a timely filed appeal, the Public Utilities Director or designee's determination will be final. Upon receipt of a timely appeal, the matter will be reviewed by the IPUC Board within 45 days of receipt. A written decision of the IPUC Board shall be delivered to the Customer by personal delivery or certified mail within fifteen days following the appeal hearing. Any decision of the IPUC Board is a final decision.
18. IPUC does not endorse or recommend specific products or dealers and disclaims any warranty, whether expressed or implied, regarding the equipment installed, or for any material or labor associated with its installation, maintenance, repair, safety, satisfactory performance, or any energy savings associated with its use.
19. Public Utilities Director will approve/pre-approve funding in an amount up to \$10,000.00 for any project in the form of rebate/incentive/direct funding for any customer. For any customer project exceeding \$10,000.00 in rebate/incentive/direct funding will require IPUC Board approval.

## Appendix A

### IPUC

#### Energy Efficiency Program Budget

April 15, 2019 – April 14, 2021

Program Name	Program Description	IPUC Representative Contract	Customer Rebates	IPUC
<b>Large General Service</b>				
1. Energy Audits	ASHRAE Level I, II or III Energy Audits	\$86,000		
2. Lighting Incentives	Energy efficiency lighting rebates equal to one-year energy saving @ \$0.125/kWh.		\$50,000	
3. Customized Incentives	Non-lighting energy efficiency rebates equal to one-year energy savings @ \$0.125/kWh and \$150/kW for each on-peak kW that has been reduced.		\$50,000	
4. Construction Incentives	Construction projects that include equipment components that exceed baseline energy performance standards by more than 10%. The EE Program payment is based on 25% of the cost difference between standard and upgraded equipment and/or materials.		\$27,000	
<b>General Service</b>				
1. Energy Surveys	Energy survey of existing facilities and financial feasibility of recommended energy efficiency measures.	\$10,000		

2. Direct Install	Installation of energy efficiency equipment with rebates up to \$1,000 per customer.	\$18,000		
<b>Domestic Service</b>				
1. Direct Install	Energy survey and allowances up to \$500 every two years for qualified expenditures.	\$12,000		
2. Rebate Program	Rebate up to \$250 per household for IPUC approved Energy Star® appliances.		\$4,000	
<b>IPUC Projects</b>	Payment for projects/activities that increase energy efficiency or conservation or reduce peak-demand.			\$20,000
<b>Program Administration</b>				\$30,000
<b>Total Budget*</b>	\$307,000	\$126,000	\$131,000	\$50,000

\*Based upon the specific needs of the IPUC customers, the Public Utility Director has the authorization to transfer the planned expenditures between programs.

## **Appendix B**

### **IPUC**

#### **American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) Energy Audit Procedures**

### **1. Level I Audit**

A Level I audit, which may also be called a site assessment audit or preliminary audit, is used to identify no-cost and low-cost energy saving opportunities, and a general view of potential capital improvements. Activities include an assessment of energy bills and a brief site inspection of the facility.

The steps to be taken and scope of services provided under a Level I Audit are as follows:

- 1.1. IPUC Representative will either schedule a meeting with facility staff or request an in-person meeting. During the initial contact, IPUC Representative will collect:
  - 1.1.1. Business name, address, phone number, facility square footage and usage type
  - 1.1.2. Customer contact name, address, phone number and e-mail address
  - 1.1.3. Building owner name, address, phone number and e-mail address
  - 1.1.4. One year of the most recent electric utility bill information
- 1.2. If scheduled in advance, prior to the meeting, IPUC Representative will prepare for the meeting by:
  - 1.2.1. Reviewing and analyzing the energy bills to identify any unusual usage patterns
  - 1.2.2. Benchmarking the buildings energy consumption and comparing it to similar buildings based on the Energy Use Intensity (EUI)
- 1.3. IPUC Representative will conduct an initial high-level interview with the building owner or the building owner's representative and the facility manager (when applicable). IPUC Representative will:
  - 1.3.1. Discuss goals and objectives of the audit as well as the deliverables
  - 1.3.2. Discuss the audit schedule, escorts and points of contact for the IPUC Representative. Also, discuss any trade secrets, potential for industrial espionage, or facility areas that are "off limits"
  - 1.3.3. Discuss any safety and security protocols observed at the site and equipment access procedures
  - 1.3.4. Determine customer's processes, systems, lighting, HVAC, controls and other equipment, and how they are used
  - 1.3.5. Determine and document operating schedules, shift work, controls and operational characteristics of the different areas of the facility
  - 1.3.6. Discuss and document customer-specific financial considerations and issues

- 1.3.7. Discuss and document any critical equipment or functions that cannot contribute to energy efficiency solutions, or that the customer is unwilling to modify
- 1.3.8. If available, review facility site map to develop strategy for site walkthrough
- 1.3.9. Collect facility information:
  - 1.3.9.1. Year Built
  - 1.3.9.2. Utility Meter Information
  - 1.3.9.3. Hours of Operation (Weekdays & Weekends)
  - 1.3.9.4. Number of Stories
  - 1.3.9.5. Single Tenant/Multi-Tenant?
  - 1.3.9.6. Annual Percent Occupancy
  - 1.3.9.7. HVAC system type(s)
- 1.4. IPUC Representative will conduct a walkthrough and document all possible low-cost and no-cost recommendations, whether or not they have immediate potential for inclusion in the project. This may include pictures, nameplate data and details regarding:
  - 1.4.1. Building envelope
  - 1.4.2. Lighting
  - 1.4.3. Heating and cooling
  - 1.4.4. Refrigeration
  - 1.4.5. Miscellaneous Equipment
- 1.5. IPUC Representative will conduct data analysis of the facility including:
  - 1.5.1. Benchmarking the buildings energy consumption and comparing it to similar buildings based on the Energy Use Intensity (EUI)
  - 1.5.2. The energy analysis will include a review of the existing equipment to identify low-cost and no-cost recommendations in addition to capital improvements
  - 1.5.3. The cost analysis will include a review of current energy costs, measure implementation costs, potential energy cost savings per year, possible rebate and incentive amounts and simple payback period.
- 1.6. IPUC Representative will create a report including the following:
  - 1.6.1. Cover Page: The Report shall begin with a cover page identifying Customer, title of the audit, address of the facility, and date completed.
  - 1.6.2. Executive Summary: The executive summary is intended to provide the important findings of the audit at a glance. This will include a statement on the scope and methodology of the audit.
  - 1.6.3. Facility Description: A brief description of the facility, square footage, hours of operation, use, location
  - 1.6.4. Benchmarking: Comparing the building's energy use to similar buildings based on the Energy Use Intensity (EUI)
  - 1.6.5. Energy Efficiency Opportunities: This subsection lists the measures found and provides a brief explanation of low-cost and no-cost energy savings opportunities

- 1.6.5.1. Measure Identification Number #
- 1.6.5.2. Measure Description
- 1.6.5.3. Measure Quantity
- 1.6.5.4. Description of Energy Saving Opportunities
- 1.6.5.5. Rough Estimate on Project Implementation/Retrofit Cost (\$)
- 1.6.5.6. Estimated Utility Rebates/Incentives (if applicable) (\$)
- 1.6.5.7. Estimated Simple Payback
- 1.6.5.8. Potential measures for future consideration

1.7. After the report is complete, but before presenting to the customer, IPUC Representative's engineering department will review all measures, paybacks, estimated costs and evaluations. The report will be modified until it meets requirements. Once approved by IPUC, IPUC Representative will present the findings to the customer.

## **2. Level II Audit**

Level II audits, also called energy surveys or engineering analysis audits, identify no-cost and low-cost opportunities, as well as potential capital-intensive energy savings opportunities. Level II audits include an in-depth analysis of energy costs, energy usage and building characteristics, and a more refined survey of how energy is used in the facility.

A Level II audit will be implemented for those measures that the customer selects from the Level I audit report. It is also possible for a customer to request a Level II audit without a Level I audit performed if that customer verifies that the resulting products for selected equipment are viable within the next year. The customer may proceed with measure implementation following the Level I Audit without having a Level II Audit.

The Level II audit will entail a detailed analysis on measures selected by the customer, or the measures considered by the IPUC Representative to be cost-effective. Each measure will be accompanied with detailed energy saving calculations, cost estimates and financial analysis. In addition to Level I activities, the Level II audit report will include the following:

- 2.1. During the initial contact, IPUC Representative will collect:
  - 2.1.1. Two years of the most recent electric utility bill information
  - 2.1.2. The building as-built plans, and mechanical and electrical schedules
  - 2.1.3. A detailed HVAC equipment list from the building's current HVAC contractor (if applicable) to cross reference with the as-built plans

- 2.2. IPUC Representative will conduct a detailed interview with the building owner or the building owner's representative, the facility manager and facility Engineer (when applicable)
  - 2.2.1. Determine customer's preference of return-on-investment (ROI) or payback period
  - 2.2.2. Determine and document operating schedules, occupancy (especially multi-tenant situations), process operation, shift work, controls and operational characteristics of the different areas of the facility. The purpose is to gain a better understanding of the customer's needs, wants and expectations regarding energy efficiency, and to compile a complete inventory of all energy consuming devices at the site
- 2.3. IPUC Representative will conduct a thorough walkthrough of the facility and document all existing equipment, whether or not they have immediate potential for inclusion in the project. This may include pictures of, and data on:
  - 2.3.1. Building envelope
    - 2.3.1.1. Construction details including orientation, construction material type, insulation levels, glazing type and area on each side
  - 2.3.2. Lighting
    - 2.3.2.1. Type, hours of use and control type and count
  - 2.3.3. Heating, Ventilation and Air Conditioning (HVAC) System
    - 2.3.3.1. Nameplate information on each piece of system equipment, hours of operation and zones served
  - 2.3.4. Process/heavy equipment
    - 2.3.4.1. Nameplate information on each piece of equipment, hours of operation, count
  - 2.3.5. Refrigeration
    - 2.3.5.1. Nameplate information on each piece of equipment, count
  - 2.3.6. Miscellaneous Equipment
    - 2.3.6.1. Nameplate information on each piece of equipment, hours of operation, count
- 2.4. Detailed equipment energy analysis, as selected by the customer or determined by the IPUC Representative for possible recommendations, including:
  - 2.4.1. HVAC System: An analysis on the HVAC system will include: system type; capacity; confirmed or estimated age of equipment, efficiency; Expected Useful Life (EUL); and number of units. A special note will be written if the equipment exceeds its useful life. Reference how the system was designed and how it is currently operating, and highlight any major differences discovered through the audit process
  - 2.4.2. Building Controls: The analysis will include: manufacturer; year installed; equipment being controlled; and protocols used by the system
  - 2.4.3. Lighting: The analysis will include: type, wattage; quantity; how the lighting is being controlled (sensors, daylight harvesting, control system, etc.); and the typical facility hours of operation for each lighting system



- 2.4.4. Refrigeration: The analysis will include: compressor type; wattage; quantity; and evaporator fan motor type and controls
  - 2.4.5. Compressed Air: The analysis will include: system components; layout; equipment nameplate data; usage type; and hours of operation
  - 2.4.6. Miscellaneous Equipment: The analysis will include: type; wattage; quantity; and hours of operation
- 2.5. IPUC Representative will create a detailed energy audit report including:
- 2.5.1. Cover Page: The report will contain a cover page identifying the customer; title of the audit; address of the facility; and date completed.
  - 2.5.2. Executive Summary: The executive summary is intended to provide the important findings of the audit at a glance. This will include: a detailed facility description; current conditions; and summary of savings from the energy efficiency recommendations.
  - 2.5.3. Building Envelope: A description of the building's orientation; construction material type; insulation levels; glazing type; and area on each side.
  - 2.5.4. Utility Billing: This will include an analysis on the electric consumption for the previous twelve months and the average rate charge.
  - 2.5.5. Energy Balancing: The goal of the energy balance is to calibrate the facility's energy consumption and the existing equipment with information collected during the audit such as hours of operation and equipment nameplate data.
  - 2.5.6. Detailed End-use Breakdown: This will include a percent and chart breakdown for each equipment type obtained from the energy balancing. The end-use breakdown is used to better understand the building and be able to compare it with similar facilities.
  - 2.5.7. Energy Efficiency Recommendations: This portion of the report will include a description of the existing equipment and the recommended upgrades or replacement equipment. Only cost-effective measures, as determined by the energy analysis, will be presented to the customer as recommendations.
    - 2.5.7.1. Measure Identification Number #
    - 2.5.7.2. Measure Type (energy efficiency, demand response, distributed generation)
    - 2.5.7.3. Measure Description
    - 2.5.7.4. Measure Location(s)
    - 2.5.7.5. Measure Quantity
    - 2.5.7.6. Description of Energy Efficiency Opportunities
    - 2.5.7.7. Detailed energy and cost savings
    - 2.5.7.8. Potential measures for future consideration
  - 2.5.8. Detailed energy and cost analysis on energy efficiency recommendations will include:
    - 2.5.8.1. Energy demand reduction (kW)
    - 2.5.8.2. Annual electric consumption savings (kWh)
    - 2.5.8.3. Bill impact analysis with net annual cost savings (\$)
    - 2.5.8.4. Total Measure/Project Implementation/Retrofit Cost (\$)
    - 2.5.8.5. Assumptions and references (RSMMeans, actual quotes, etc.)

- 2.5.8.6. Detailed payback analysis to include simple payback, internal rate of return (IRR), and other customer-specific financial analyses.
- 2.5.9. Utility Programs: Detailed list of rebate and incentive programs offered by the customer's utility provider.
- 2.5.10. Equipment Inventory: Detailed list of all equipment found on the facility
  - 2.5.10.1. Electrical
  - 2.5.10.2. Mechanical

2.6. After the report is complete, but before presenting to the customer, IPUC Representative's engineering department will review all measures, paybacks, estimated costs and evaluations. The report will be modified until it meets requirements. Once approved by IPUC, IPUC Representative will present the findings to the customer.

### **3. Level III Audit**

A Level III audit, also called a detailed analysis of capital-intensive modification audit or investment grade audit, provides detailed recommendations and financial analysis for major capital investments related to energy conservation. In addition to Level I and Level II activities, Level III audits include monitoring/metering equipment, Building Energy Modeling (BEM) and custom engineering analysis.

A Level III audit may be implemented for those measures that the customer selects from the Level II audit report or for targeted capital investments.

The steps taken and scope of services provided under a Level III audit are:

- 3.1. Perform an audit to collect building and equipment information, as outlined in Level I and Level II audits with the addition of:
  - 3.1.1. Determine the HVAC zoning per unit
  - 3.1.2. Collect square footage of each zone
  - 3.1.3. Collect equipment and lighting information per zone
  - 3.1.4. Determine specific processes performed on-site
- 3.2. Meter/record detailed information on targeted equipment performance
  - 3.2.1. Determine which equipment requires monitoring or trending data (energy measurements prior to project starting) include, but are not limited to:
    - 3.2.1.1. Pneumatic to Electric Air Dryers
    - 3.2.1.2. Blowers
    - 3.2.1.3. Chiller Compressor Retrofit
    - 3.2.1.4. Chiller Cross Tie (Cross Connect)
    - 3.2.1.5. Chiller Replacement (if multiple chillers at site)
    - 3.2.1.6. Commercial Laundry with Heat Recovery
    - 3.2.1.7. EMS or DDC Installation
    - 3.2.1.8. Engine Jacket Water Heating

- 3.2.1.9. Central Plant Optimization (Hartman Loop)
    - 3.2.1.10. Pump Replacement (pump check analysis to establish efficiency of the pump)
    - 3.2.1.11. Pump VFD and Pump Station VFD
    - 3.2.1.12. Fan VFD
  - 3.2.2. Review mechanical or electrical equipment plans and determine the data type that needs to be collected and monitored. Strategize on meter location
  - 3.2.3. Install data logger, current transducers or applicable sensor type
  - 3.2.4. Record required data for prescribed period
- 3.3. Analyze whole building performance with a Building Energy Modeling (BEM) software
- 3.3.1. Construct an energy model of the current building and baseline conditions, specifics include:
    - 3.3.1.1. Building shell(s): building type, envelope, orientation, glazing type, climate zone, HVAC zoning, square footage
    - 3.3.1.2. HVAC system type and location: Chiller, package unit, split unit, condenser coil, boilers, cooling towers, air handlers, make-up air units, ventilation fans, etc.
    - 3.3.1.3. Lighting: Lighting Power Density (LPD) per zone
    - 3.3.1.4. Equipment: Watts per square foot for each zone
    - 3.3.1.5. Miscellaneous Equipment: Watts per square foot for each zone
    - 3.3.1.6. Controls: Include any existing controls such as VFDs, EMS, daylight harvesting, occupancy sensors, etc.
    - 3.3.1.7. Occupancy: Include the number of people per facility/zone and the percent occupancy depending on building type (per day/week/month)
    - 3.3.1.8. Schedules: Include the specific operation hours for equipment, elevators, HVAC units, interior and exterior lighting
  - 3.3.2. Calibrate the energy model to 10% (or less) of the billing data to accurately simulate energy performance
    - 3.3.2.1. Normalize billing data to increase monthly energy consumption accuracy
    - 3.3.2.2. Analyze and adjust equipment usage until the energy model is well calibrated to meet the required building performance
  - 3.3.3. Conduct parametric runs to simulate each energy efficiency measure
    - 3.3.3.1. Analyzes each energy efficiency measure and provides detailed energy and demand savings
    - 3.3.3.2. Calculates the interactive effects each measure will have on other systems and the positive or negative effects on the building's energy consumption
- 3.4. Perform high precision cost and savings calculations
- 3.4.1. Perform customized engineering calculations for equipment that requires metering

- 3.4.2. Detailed financial analysis, incorporating estimated project cost, rebates, incentives, projected savings from detailed engineering analysis and finance assumptions
- 3.5. IPUC Representative will create a detailed energy audit report including:
  - 3.5.1. Cover Page: The report will contain a cover page identifying the customer, title of the audit, address of the facility and date completed.
  - 3.5.2. Executive Summary: The executive summary is intended to provide the important findings of the audit at a glance. This will include a detailed facility description, current conditions and summary of savings from the energy efficiency recommendations.
  - 3.5.3. Building Envelope: A description of the building's orientation, construction material type, insulation levels, glazing type and area on each side
  - 3.5.4. Utility Billing: This will include an analysis on the electric consumption for the previous twelve months and the average rate charge.
  - 3.5.5. Energy Balancing: The goal of the energy balance is to calibrate the facility's energy consumption and the existing equipment with information collected during the audit such as hours of operation and equipment nameplate data.
  - 3.5.6. Detailed End-use Breakdown: This will include a percent and chart breakdown for each equipment type obtained from the energy balancing. The end-use breakdown is used to better understand the building and be able to compare it with similar facilities.
  - 3.5.7. Energy Efficiency Recommendations: This portion of the report will include a description of the existing equipment and the recommended upgrades or replacement equipment. Only cost-effective measures, as determined by the energy analysis, will be presented to the customer as recommendations:
    - 3.5.7.1. Measure Identification Number #
    - 3.5.7.2. Measure Type (energy efficiency, demand response, distributed generation)
    - 3.5.7.3. Measure Description
    - 3.5.7.4. Measure Location(s)
    - 3.5.7.5. Measure Quantity
    - 3.5.7.6. Description of Energy Efficiency Opportunities
    - 3.5.7.7. Detailed energy and cost analysis
    - 3.5.7.8. Potential measures for future consideration
  - 3.5.8. Detailed energy and cost analysis on energy efficiency recommendations will include:
    - 3.5.8.1. Energy demand reduction (kW)
    - 3.5.8.2. Annual electric consumption savings (kWh)
    - 3.5.8.3. Bill impact analysis with net annual cost savings (\$)
    - 3.5.8.4. Total Measure/Project Implementation/Retrofit Cost (\$)
    - 3.5.8.5. Assumptions and references (RSMeans, actual quotes, etc.)
    - 3.5.8.6. Detailed payback analysis to include simple payback, internal rate of return (IRR), and other customer-specific financial analyses
  - 3.5.9. Utility Programs: Detailed list of rebate and incentive programs offered by the customer's utility provider

3.5.10. Equipment Inventory: Detailed list of all equipment found on the facility

3.5.10.1. Electrical

3.5.10.2. Mechanical

After the report is complete, but before presenting to the customer, IPUC Representative's engineering department will review all measures, paybacks, estimated costs and evaluations. The report will be modified until it meets requirements. Once approved by IPUC, IPUC Representative will present the findings to the customer.

**Appendix C**  
IPUC Energy Efficiency Program  
General Service Energy Survey Process and Direct Install Program

**1. Energy Survey Process and Direct Install Program**

- 1.1 The IPUC Representative will meet with the General Service customer and if necessary, receive a "Property Owner's Agreement" signed by the property owner or property manager.
- 1.2 The IPUC Representative will conduct a walk-through and enter in the database all the applicable energy measures for lighting, heating, cooling, and equipment.
- 1.3 Consistent with IPUC EE Policy, IPUC Representative will recommend the appropriate energy efficiency measures to be installed.
- 1.4 With the Customer and IPUC's approval, IPUC Representative will install the energy efficiency measures recommended.
- 1.5 The General Service customer or property manager will sign the work order listing the measures installed.

**Appendix D**  
**IPUC**  
**Domestic Direct Install and Rebate Program**

**1. Energy Survey Process and Direct Install Program**

- 1.1 The IPUC Representative will meet with the residential customer and if necessary, receive a "Property Owner's Agreement" signed by the property owner or property manager for each rental unit that will be participating.
- 1.2 The IPUC Representative will conduct a walk-through and enter in the database all the applicable energy measures for lighting, heating, cooling, and equipment.
- 1.3 Consistent with IPUC EE Policy, IPUC Representative will recommend the appropriate energy efficiency measures to be installed.
- 1.4 With the Customer and IPUC's approval, IPUC Representative will install the energy efficiency measures recommended.
- 1.5 The homeowner or property manager will sign the work order listing the measures installed.

**2. Domestic Rebate Program**

<b>Energy Star® Equipment</b>	<b>Rebate Amount (\$)</b>	<b>Energy Star Estimated Annual Savings* (kWh)</b>
LED Lights (5-10 Watts)	\$5.00	Varies
LED Lights (11-20 Watts)	\$8.00	Varies
LED Lights (>20 Watts)	\$10.00	Varies
Refrigerator	\$100.00	185.0
Freezer	\$50.00	47.0
Dishwasher	\$50.00	25.0
Programmable/Smart Thermostat	\$125.00	Varies
Ceiling Fan	\$50.00	48.6
Clothes Washer	\$200.00	49.5
Window Air Conditioner Unit	\$50.00	918.0

\*Estimated Annual Savings are from Energy Star or the U.S. Department of Energy.

**Appendix E**  
 IPUC Energy Efficiency Program  
 General Services and Domestic Direct Install Measures

Listed below is the description of the installed measures included in the Direct Install Program and the allowance provided to General Service and Residential Customers

Measure Code	Installed Measure	Measure Price
<b><i>INTERIOR LIGHTING</i></b>		
<b>Linear Fluorescent Retrofit</b>		
LGT362	4ft 4L 32W T8 High Perf w/EB	\$ 80.00
LGT367	4ft 4L 32W T8 High Perf w/2EB	\$ 93.00
LGT373	4ft 3L 32W T8 High Perf w/2EB	\$ 85.00
LGT373a	4ft 3L 32W T8 High Perf w/Elec	\$ 72.00
LGT383	4ft 2L w/EB (Retro)	\$ 58.00
LGT381	4ft 2L T8 U6 w/EB	\$ 71.00
LGT393	4ft 1L 32W T8 High Perf w/EB	\$ 56.00
LGT401	8ft 4L T8 High Perf w/2EB	\$142.00
LGT404	8ft 4L T8 High Perf w/EB	\$111.00
LGT405	8ft 2L T8 w/EB	\$100.00
LGT406	8ft 2L 28-32W w/EB & retro kit	\$112.00
LGT403	8ft 2L T8HO w/EB (Retrofit)	\$146.00
LGT407	8ft 1L T8 w/EB	\$ 80.00
LGT408	6ft 4L 28-32W w/EB & retro kit	\$110.00
LGT409	6ft 2L 28-32W w/EB & retro kit	\$ 93.00
LGT410	3ft 2L 25W 2nd gen T8 w/EB	\$ 65.50
LGT412	3ft 1L 25W 2nd gen T8 w/EB	\$ 60.00
LGT415	3ft 4L 25W 2nd gen T8 w/EB (6-ft conv kit)	\$ 95.00
LGT416	2ft 4L F17 2nd gen T8 w/EB	\$ 68.00
LGT420	2ft 2L 32T8 U6 w/EB	\$ 1.00
LGT422	2ft 2L F17 2nd gen T8 w/EB	\$ 0.00
LGT425	2ft 1L F17 2nd gen T8 w/EB	\$ 57.00
LGT426	4ft tube guard	\$ 10.00
LGT427	8ft tube guard	\$ 10.00
PARTS01_042017	Clear Acrylic Lens Cover (wrap fixture)	\$ 59.00
PARTS01	Clear Acrylic Lens Cover	\$ 18.00
<b>Linear Fluorescent New Fixture</b>		
LGT377	4ft 2L w/EB (New Fixt)	\$111.00
LGT403a	8ft 2L T8HO w/EB (New Fixt)	\$137.00



Measure Code	Installed Measure	Measure Price
<b>T8 Lamps</b>		
LGT 347	8ft T8 Bulbs Only	\$ 9.00
LGT 347	4ft T8 Bulbs Only	\$ 7.00
<b>INTERIOR LIGHTING T8 DELAMPING</b>		
<b>4ft Retrofit / Delamping</b>		
LGT461	4ft 3L T8 Retro/Delamp	\$102.00
LGT462	4ft 2L T8 Retro/Delamp	\$ 74.00
<b>4ft New Fixture / Delamping</b>		
	4ft 4L T8 New Fix/Delamp	\$166.00
LGT463	4ft 3L T8 New Fix/Delamp	\$163.00
LGT464	4ft 2L T8 New Fix/Delamp	\$154.00
<b>4ft F25T8 retrofit / Delamping with Anti-Striation Ballast</b>		
LGT610	4ft 3 Lamp F25T8 Retrofit	\$125.00
LGT611	4ft 2 Lamp F25T8 Retrofit	\$ 96.00
LGT612	4ft 1 Lamp F25T8 Retrofit	\$ 89.00
<b>HID Replacement to Linear Florescent Fixture</b>		
LGT473	4ft 4 Lamp T8 High Bay Fixture	\$264.00
LGT474	4ft 2 Lamp T5HO High Bay Fixture	\$270.00
LGT475	4ft 6 Lamp T8 High Bay Fixture	\$288.00
LGT476	4ft 4 Lamp T5HO High Bay Fixture	\$300.00
LGT477	4ft 8 Lamp T8 High Bay Fixture	\$327.00
LGT478	4ft 6 Lamp T5HO High Bay Fixture	\$335.00
LGT479	4ft 10 Lamp T8 High Bay Fixture	\$442.00
LGT480	4ft 8 Lamp T5HO High Bay Fixture	\$428.00
<b>8ft T12 HO Exterior Retrofit to 8ft T8 HO</b>		
LGT481	8ft 1 Lamp T8HO Exterior Retrofit	\$ 92.00
LGT482	8ft 2 Lamp T8HO Exterior Retrofit	\$103.00
LGT483	8ft 3 Lamp T8HO Exterior Retrofit	\$137.00
LGT484	8ft 4 Lamp T8HO Exterior Retrofit	\$162.00
LGT485	8ft 6 Lamp T8HO Exterior Retrofit	\$207.00
<b>CFL</b>		
LGT428	CFL 5-13W**	\$ 21.00
	5 W Screw-n CFL**	\$ 21.00
	7 W Screw-in CFL**	\$ 21.00
	9 W Screw-in CFL**	\$ 21.00
LGT428c	9 W Globe CFL**	\$ 21.00
	13W/60W Spiral - Indoor CFL**	\$ 21.00
<b>CFL 14-26W</b>		

Measure Code	Installed Measure	Measure Price
	11 W Screw-in CFL**	\$ 21.00
LGT429i	14 W A-Type Screw-in**	\$ 22.00
LGT429a	14W Screw-in CFL**	\$ 17.00
LGT429l	18W Screw-in CFL**	\$ 22.00
LGT429k	23W Screw-in CFL**	\$ 18.00
LGT430	>= 27W**	\$ 25.00
LGT430a_0715	1 27W/100W Spiral Indoor CFL**	\$ 22.00
LGT432	CFL 11W R20**	\$ 21.00
	9 W R20 Flood Type**	\$ 21.00
LGT432a	11 W R20 Flood Type R20 2700K**	\$ 22.00
	11 W R20 Flood Type R20 4000K**	\$ 22.00
LGT433	CFL 15W R30**	\$ 21.00
LGT433e	9W CFL Candle/Base**	\$ 19.00
LGT433	CFL Indoor Flood, 14 W R20**	\$ 22.00
LGT433a	CFL Indoor Flood, 15 W R30 2700K**	\$ 22.00
LGT434e	23W CFL PAR38 2700K**	\$ 25.00
LGT434f	14W CFL PAR20 2700K**	\$ 19.00
LGT434g	19 W CFL R40 2700K**	\$ 25.00
	19 W Screw-in Par 38 CFL**	\$ 23.00
	20 W Screw-in Par 38 CFL**	\$ 23.00
	CFL Indoor Flood, 20 W R40 2700K**	\$ 23.00
	CFL Indoor Flood, 20 W R30 3200K**	\$ 23.00
LGT435	CFL Indoor Flood, 25 W R30 2700K**	\$ 21.00
LGT436	32W CRL Wall Pack Fixture**	\$129.00
LGT437	CFL 65W Floodlight Fixture**	\$132.00
LGT438	CFL 65W Yardlight Fixture**	\$129.00
	<b>PAR16 / MR16 Incandescent to CFL 9-11 W PAR16</b>	
LGT558	9W PAR16**	\$ 32.00
LGT559	11W PAR16**	\$ 32.00
	<b>PAR20 Incandescent to CFL 9- 14W PAR20</b>	
LGT560	9W PAR20**	\$ 30.00
LGT561	11W PAR20**	\$ 30.00
LGT562	14W PAR20**	\$ 30.00
	<b>PAR30 Incandescent to CFL 15- 19W PAR30</b>	
LGT564	19W PAR30**	\$ 30.00

Measure Code	Installed Measure	Measure Price
	<b>PAR38 CFL 19-23W PAR38</b>	
LGT565	19W PAR38**	\$ 31.00
LGT566	20W PAR38**	\$ 31.00
LGT567	23W PAR38**	\$ 31.00
	<b>PAR16 / MR16 Incandescent to CMH PAR16</b>	
LGT568	20W PAR16**	\$109.80
	<b>PAR20 Incandescent to CMH PAR20</b>	
LGT569	20W PAR20**	\$ 72.00
LGT570	39W PAR20**	\$ 85.00
	<b>PAR30 Incandescent to CMH PAR30</b>	
LGT571	20W PAR30**	\$ 60.00
LGT572	35W PAR30**	\$ 72.00
LGT573	70W PAR30**	\$ 85.00
	<b>HID Fixture Replacement to CFL</b>	
LGT579	80W CFL Spiral 120V Retrofit**	\$162.00
LGT584	100W CFL Spiral 120V/277V Retrofit**	\$174.00
LGT587	150W CFL Spiral 120V/277V Retrofit**	\$195.00
LGT588	200W CFL Spiral 120V/277V Retrofit**	\$209.00
	<b>HID Wall pack Replacement to CFL Wall pack</b>	
LGT590	42W CFL Wall pack Fixture**	\$148.00
	<b>Chandelier Incandescent replacement to CFL Chandelier</b>	
LGT596	2W CFL Tear Drop Candelabra**	\$ 26.00
LGT597	14W CFL Tear Drop Candelabra**	\$ 26.00
LGT598	5W CFL Flame Tip Bulb**	\$ 26.00
LGT617	Cold Cathode CFL (1-6W)**	\$ 26.00
LGT617a	Cold Cathode CFL (7-15W)**	\$ 31.00
	<b>LED LIGHTING</b>	
	<b>4ft LED Retrofit</b>	
LGT486	4ft 4L Linear LED Retrofit	\$149.00
LGT486_2c_0317	4ft 3L (6pc) LED Retrofit Bi-Level	\$142.00
LGT486a	4ft 4L LED Retrofit Plug-n-Play	\$108.00
LGT487	4ft 3L Linear LED Retrofit	\$116.00
LGT487_1b_0717APU	4FT 2L LED lamp only Plug-n-Play	\$ 55.00
LGT487_1c_0717APU	4FT 4L LED lamp only Plug-n-Play	\$ 81.00

Measure Code	Installed Measure	Measure Price
LGT487_1d_0717APU	4FT 3L LED lamp only Plug-n-Play	\$ 68.00
LGT487a	4ft 3L LED Retrofit Plug-n-Play	\$ 95.00
LGT488	4ft 2L Linear LED Retrofit	\$ 96.00
LGT487b	4ft 4L LED (New Fixt)	\$192.00
LGT488a	4ft 2L LED Retrofit Plug-n-Play	\$ 80.00
LGT489a	4ft 1L LED Retrofit Plug-n-Play	\$ 67.00
LGT489a_0216	4ft 1L Linear LED Retrofit	\$ 81.00
LGT489_2b	4ft 1L (2pc) LED Retrofit	\$ 73.00
LGT486_2a_1	2ft 2L U6 (3pc) LED Retrofit	\$ 90.00
LGT486_2a	4ft 2L (4pc) LED Retrofit	\$ 98.00
LGT486_2c	4ft 3L (6pc) LED Retrofit	\$120.00
LGT-LED-09	4ft 4L (8pc) LED Retrofit	\$153.00
	<b>4ft T8 Tubes with Daylight Harvesting (Ballast with Sensor)</b>	
LGT451-B (LGT451 in database)	4ft 1L LED With Daylight Harvesting Ballast and sensor	\$191.00
LGT451-B (LGT451 in database)	4ft 2L LED With Daylight Harvesting Ballast and sensor	\$209.00
LGT452	4ft 3L LED With Daylight Harvesting Ballast and sensor	\$230.00
LGT453	4ft 4L LED With Daylight Harvesting Ballast and sensor	\$248.00
	<b>4ft T8 Strips with Daylight Harvesting (Ballast with Sensor)</b>	
LGT451-B (LGT451 in database)	4ft (2 PCS) LED With Daylight Harvesting Ballast and sensor	\$190.00
LGT451-B (LGT451 in database)	4ft (4 PCS) LED With Daylight Harvesting Ballast and sensor	\$206.00
LGT452	4ft (6 PCS) LED With Daylight Harvesting Ballast and sensor	\$226.00
LGT453	4ft (8 PCS) LED With Daylight Harvesting Ballast and sensor	\$242.00
	<b>4ft LED Retrofit / Delamping</b>	
LGT490	4ft 3L LED Retrofit 57W	\$137.00
LGT491	4ft 2L LED Retrofit 38W	\$ 99.00
LGT492	4ft 1L LED Retrofit 19W	\$ 84.00
	<b>4ft LED New Fixture / Delamping</b>	
LGT493	4ft 3L LED New Fixture	\$205.00
LGT494	4ft 2L LED New Fixture	\$180.00
LGT495	4ft 1L LED Fixture 19W	\$145.00
	<b>Chandelier Incandescent replacement to LED Chandelier</b>	

Measure Code	Installed Measure	Measure Price
LGT497	3W LED Dimmable Candelabra	\$ 34.00
	<b>Incandescent Replacement to LED</b>	
LGT500	9W A-type LED	\$ 34.00
LGT503	12W A-type LED	\$ 34.00
LGT504	7W Globe-Type LED	\$ 37.07
LGT506	9W Globe-Type LED	\$ 40.00
LGT509	12W Globe-Type LED	\$ 40.00
	<b>PAR16 / MR16 incandescent to LED 2-6 W PAR16 / MR16</b>	
LGT539_2b	LED 5W PAR/MR16	\$ 42.00
LGT539_2c	LED 5W GU10 PAR/MR16	\$ 44.00
LGT541	4W PAR16	\$ 42.00
LGT542	6W PAR16	\$ 42.00
LGT542a	10W PAR16	\$ 42.00
	<b>PAR20 Incandescent to LED 3-9W PAR20</b>	
LGT543	3W PAR20	\$ 39.00
LGT544	4W PAR20	\$ 39.00
LGT545	6W PAR20	\$ 39.00
LGT546	8W PAR20	\$ 39.00
	<b>PAR30 Incandescent to LED 7-19W PAR30</b>	
LGT547	7W PAR30	\$ 45.00
LGT547_2b	LED 16W PAR30	\$ 45.00
LGT547a_0715	8W PAR30	\$ 45.00
LGT548	10W PAR30	\$ 45.00
LGT549	11W PAR30	\$ 45.00
LGT550	13W PAR30	\$ 45.00
LGT551	14W PAR30	\$ 45.00
LGT552	15W PAR30	\$ 45.00
LGT553	19W PAR30	\$ 45.00
	<b>PAR38 Incandescent to LED 16-23W PAR38</b>	
LGT554a	13W PAR38	\$ 50.00
LGT554	16W PAR38	\$ 50.00
LGT555	20W PAR38	\$ 50.00
LGT556	23W PAR38	\$ 50.00
	<b>LED Wall Packs</b>	
LGT510_2a_0818	100W LED Bulb	\$285.00
LGT510	30W LED Wall Pack 5000K	\$292.50
LGT511	60W LED Wall Pack 5000K	\$326.00

Measure Code	Installed Measure	Measure Price
LGT512	90W LED Wall Pack 5000K	\$356.00
LGT512b_0317	80W LED Wall Pack High Power	\$423.00
LGT512_b_0921	150W LED Wallpack High Power	\$543.00
LGT512_C	200W LED Wallpack High Power	\$711.00
LGT512_D	300W LED Wallpack High Power	\$837.00
<b>HID to LED</b>		
LGT513	100W LED Highbay 5000K (Warehouse)	\$403.00
LGT514	240W LED Highbay 5000K (Warehouse)	\$526.00
LGT514a_0317(AvJet)	320W LED High Bay Fixture 5000K	\$630.00
<b>Flood Lights</b>		
LGT515_1	30W LED Flood Light	\$209.00
LGT515_2	50W LED Flood Light	\$239.00
<b>Area/Street Lighting</b>		
LGT515_4	50W Area/Street Light 5000K	\$366.00
LGT515_5	80W Area/Street Light 5000K	\$457.00
LGT515_6	100W Area/Street Light 5000K	\$571.00
LGT515_7	150W Area/Street Light 5000K	\$610.00
LGT515_8	200W Area/Street Light 5000K	\$725.00
LGT515_9	300W Area/Street Light 5000K	\$852.00
<b>Canopy Station</b>		
LGT515_10	40W LED Canopy Light 5000K	\$282.00
LGT515_11	60W LED Canopy Light 5000K	\$340.00
LGT515_12	90W LED Canopy Light 5000K	\$506.00
LGT515_13	120W LED Canopy Light 5000K	\$542.00
<b>Gas Station</b>		
LGT515_14	40W LED Gas Station Canopy Light 5000K	\$349.00
LGT515_15	60W LED Gas Station Canopy Light 5000K	\$459.00
LGT515_16	90W LED Gas Station Canopy Light 5000K	\$515.00
<b>Downlights (Recessed)</b>		
LGT515_17	13W LED Downlight 4 Inch 5000K	\$119.00
LGT515_18	22W LED Downlight 6 Inch 5000K	\$126.00
LGT515_19	35W LED Downlight 8 Inch 5000K	\$176.00
<b>LED PANELS</b>		
	2FT X 4 FT LED Flat Panel Retrofit	\$232.00
	2FT X 2FT LED Flat Panel Retrofit	\$232.00
<b>Solar Tubes</b>		

<b>Measure Code</b>	<b>Installed Measure</b>	<b>Measure Price</b>
LGT627	VELUX 10 in. Sun Tunnel Tubular Skylight with Rigid Tunnel and Low Profile Plastic and Metal Flashing	\$731.00
LGT627	ODL 10 in. Tubular Skylight with Seamless Composite Flashing	\$731.00
<b>LED EXIT/OPEN SIGNS</b>		
LGT439	LED Exit Sign-Red Replacement Battery Back-up	\$118.00
LGT440	LED Exit Sign-Green Replacement Battery Back-up	\$118.00
LGT500d	LED Open signs replaces Neon	\$151.00
LGT500	Green or Red Photo luminescent Exit Sign (Single sided)	\$158.00
LGT501	Green or Red Photo luminescent Exit Sign (Double sided)	\$256.00
<b>WINDOW FILM</b>		
HVACS202	Medium Reflectivity Window Film	\$ 9.00
HVACS202b_2	Low Reflectivity Window Film	\$ 9.00
HVACS202c_2	High Reflectivity Window Film	\$ 9.00
<b>HVAC</b>		
HVACS203	HVAC Tune-Up Basic Diagnostic < = 5 Ton Unit	\$210.00
HVACS205	HVAC Tune-Up Basic Diagnostic > = 5 Ton Unit	\$210.00
HVACS206	HVAC Tune-Up Basic Diagnostic > = 10 Ton Unit	\$230.00
HVACS222	HVAC Tune-Up Comprehensive Diagnostic < = 10 Ton Unit	\$530.00
HVACS208	Duct Sealing, Non-Residential CZ 15 (per Ton)	\$348.50
HVACS208	Duct Test and Seal >= 5 Ton Unit (ducting)	\$430.00
HVACS209	Ceiling Fan with Thermostatic Control 30" to 36" (tied to the HVAC System)	\$2,160.00
HVACS210	Ceiling Fan with Thermostatic Control 42" to 44" (tied to the HVAC System)	\$2,300.00
HVACS211	Ceiling Fan with Thermostatic Control 52" to 56" (tied to the HVAC System)	\$2,645.00

Measure Code	Installed Measure	Measure Price
HVACS217	Refrigerant, Non-Residential CZ 15 (per Ton)	\$161.50
HVACS220	Dirty Condenser Coil Cleaning	\$85.00
<b>T-STATS</b>		
HVACS207	7 Day Programmable Thermostat	\$150.00
HVACS207f	5 Day Programmable Thermostat	\$150.00
HVACS208	All in One Thermostat	\$150.00
HVACS209	Reprogramming/Education Existing Programmable Thermostats	\$ 86.00
HVACS210	Thermostat Lock Box	\$ 82.00
	Smart Thermostat RTA	\$344.00
	Smart Thermostat Nest	\$422.00
	Smart Thermostat EcoBee3	\$397.00
	Smart Thermostat Honeywell	\$373.00
	Common Wire attachment	\$156.00
	Thermostat Training and Education	\$ 37.00
	Outreach Customers for Thermostat	\$ 67.00
	Hourly HVAC Service Tech Rate	\$ 68.00
<b>REFRIGERATION</b>		
APPLS008	Refrigeration Curtains Med. Per Linear ft.	\$195.00
APPLS008a	Freezer Curtains Med. Per Linear ft.	\$212.00
<b>Refrigeration</b>		
APPLS009_1	Walk-In Cooler - Tune Up	\$196.00
APPLS009_2	Walk-In Freezer - Tune Up	\$196.00
APPLS009_3	Under Counter & Self Contained - Tune Up	\$196.00
APPLS009_4	Split Systems w/Multiple Coils - Tune Up	\$196.00
APPLS010	Refrigerator Main Cooler Door Gaskets Med. Temp. per Linear ft.	\$ 20.00
APPLS011	Freezer Main Cooler Door Gaskets Low Temp. per Linear ft.	\$ 20.00
APPLS012	Door Closer	\$199.00
APPLS013	Heavy duty UV Refrigeration Pipe-Insulation per Linear ft.	\$ 13.00
APPLS21 Greenwize	Anti-Sweat Heat (ASH) Controls (or Humidistat Controls) Freezer	\$626.88
APPLS21_1 Sentry	Anti-Sweat Heat (ASH) Controls (or Humidistat Controls) Freezer	\$466.88



<b>Measure Code</b>	<b>Installed Measure</b>	<b>Measure Price</b>
APPLS22 Greenwize	Anti-Sweat Heat (ASH) Controls (or Humidistat Controls) Cooler	\$584.38
APPLS22_2 Sentry	Anti-Sweat Heat (ASH) Controls (or Humidistat Controls) Cooler	\$499.38
APPLS23	Replace Standard Fan Motors with Electronically Commutated Motors (ECM)	\$241.00
APPLS23	16W Electronically Commutated Motor	\$205.00
APPLS23-a	1/15HP-1/20HP Electronically Commutated Motor	\$233.00
APPLS24	Install Fan Controllers	\$286.40
APPLS25	Suction Line Insulation (per linear foot)	\$ 20.00
APPLS26	Refrigerant charge for refrigerators/freezers (per pound)	\$ 86.00
<b>Refrigeration LED Retrofit</b>		
APPLS018	4ft 1L LED (Low Temp)	\$ 86.67
APPLS018a	5ft 1L LED (Low Temp)	\$116.24
APPLS019	6ft 1L LED (Low Temp)	\$129.38
APPLS020	4ft 2L LED (Low Temp)	\$149.50
<b><i>WEATHERIZATION – all electric homes</i></b>		
WTHRS005	Seal Doors - Mohair (per linear foot)	\$ 5.00
WTHRS007	Door Sweeps per Door	\$ 69.00
WTHRS008	Caulking (per linear foot)	\$ 4.25
WTHRS009	Expandable Foam (per linear foot)	\$ 20.00
WTHRS006	Seal Windows - Silicon (per linear foot)	\$ 10.00
WTHRS010	External Water Heater Insulation (=> 50-Gal Tank) and piping insulation (up to 20ft)	\$326.00
<b><i>SENSORS/TIMERS</i></b>		
LGT445	Wall sensor	\$100.00
LGT445a	Dual Wall Sensor	\$135.00
LGT447	Lighting timers	\$128.00
LGT448	Lighting dimmers	\$100.00
	Toggle Switch	\$100.00
APPLS016	Appliance Timer 120V 10A	\$ 95.00
LGT599	Photo Cell Sensor	\$ 83.70
LGT600	Ceiling Mount Sensor	\$186.30

<b>Measure Code</b>	<b>Installed Measure</b>	<b>Measure Price</b>
LGT603	HB3x0-Lx High Bay Line Voltage Passive Infrared Occupancy Sensor	\$186.00
VDM01	Vending Miser Unit and Installation	\$231.19
VDM02	Plug Miser Unit and Installation	\$167.57
VDM03	Cooler Miser Unit and Installation	\$192.00
VDM04	Snack Miser Unit and Installation	\$180.50
VDM05	VendingMiser/PlugMiser/CoolerMiser/Snack Miser Installation Only	\$ 86.00
VDM06	Trickle Star Device	\$ 62.10
<b>Title 24 Sensors</b>		
T24S01	Light Control Package (Occ. Sensor & Ceiling Mount wireless)	\$313.00
T24S02	Power Pak Dimming Module	\$248.00
T24S03	Wireless Vacancy Corner Sensor	\$158.00
T24S04	Dimmable Wireless Ballast	\$111.00
T24S05	Daylight Sensor	\$179.00
T24S06	Wireless Control Switch	\$109.00
T24S08	Dual-Circuit Occupancy Sensor Switch	\$173.00
T24S09	Outdoor photocell sensor	\$ 90.00
T24S10	Astronomical Time Clock With Holiday Programing	\$358.00
T24S11	Outdoor Motion Sensor	\$210.00
T24S12	Indoor Time Clock	\$328.00
<b>CONTROLS</b>		
CTRLS01	Demand Side Electrical System Control and Monitoring	\$4,200.00
<b>PUMPS AND MOTORS</b>		
EM01	Motors 1.5 HP NEMA Premium Eff.	\$540.00
EM02	Motors 2 HP NEMA Premium Eff.	\$663.00
EM03	Motors 3 HP NEMA Premium Eff.	\$908.00
EM04	Motors 1.5 HP NEMA Premium Eff. totally enclosed	\$724.00
EM05	Motors 2 HP NEMA Premium Eff. totally enclosed	\$908.00
EM06	Motors 3 HP NEMA Premium Eff. totally enclosed	\$1,277.00
EM07	Variable-Speed Water Pump <= 5 HP	\$1,277.00
<b>AC/APPLIANCE REPLACEMENT</b>		

<b>Measure Code</b>	<b>Installed Measure</b>	<b>Measure Price</b>
ACS22	Room AC Replacement 5,000 - 5,999 BTU per Unit	\$375.00
ACS23	Room AC Replacement 6,000 - 6,999 BTU per Unit	\$594.00
ACS24	Room AC Replacement 7,000 - 7,999 BTU per Unit	\$850.00
ACS12	Room AC Replacement 8,000 - 8,999 BTU per Unit	\$897.00
ACS25	Room AC Replacement 9,000 - 9,999 BTU per Unit	\$915.00
ACS26	Room AC Replacement 10,000 - 10,999 BTU per Unit	\$945.00
ACS27	Room AC Replacement 11,000 - 11,999 BTU per Unit	\$1,050.00
ACS13	Room AC Replacement 12,000 - 12,999 BTU per Unit	\$1,073.00
ACS17	Room AC Replacement 13,000 - 13,999 BTU per Unit	\$1,158.00
ACS18	Room AC Replacement 14,000 - 14,999 BTU per Unit	\$1,220.00
ACS19	Room AC Replacement 15,000 - 15,999 BTU per Unit	\$1,230.00
ACS20	Room AC Replacement 16,000 - 16,999 BTU per Unit	\$1,230.00
ACS21	Room AC Replacement 17,000 - 17,999 BTU per Unit	\$1,230.00
ACS14	Room AC Replacement 18,000 - 23,999 BTU per Unit	\$1,230.00
ACS15	Room AC Replacement 24,000 BTU per Unit	\$1,230.00
ACS16	Power Cord	\$ 33.72
ACS30	Pig Tails	\$ 28.32
<b>Heat Pump Units (HP)</b>		
ACS28	Room HP Replacement 5,000 - 5,999 BTU per Unit	\$431.25
ACS29	Room HP Replacement 6,000 - 6,999 BTU per Unit	\$683.10
ACS30	Room HP Replacement 7,000 - 7,999 BTU per Unit	\$908.27
ACS31	Room HP Replacement 8,000 - 8,999 BTU per Unit	\$963.70

<b>Measure Code</b>	<b>Installed Measure</b>	<b>Measure Price</b>
ACS32	Room HP Replacement 9,000 - 9,999 BTU per Unit	\$1,012.00
ACS33	Room HP Replacement 10,000 - 10,999 BTU per Unit	\$ 1,105.00
ACS34	Room HP Replacement 11,000 - 11,999 BTU per Unit	\$ 1,105.00
ACS35	Room HP Replacement 12,000 - 12,999 BTU per Unit	\$ 1,120.00
ACS36	Room HP Replacement 13,000 - 13,999 BTU per Unit	\$ 1,230.00
ACS37	Room HP Replacement 14,000 - 14,999 BTU per Unit	\$ 1,230.00
ACS38	Room HP Replacement 15,000 - 15,999 BTU per Unit	\$ 1,250.00
ACS39	Room HP Replacement 16,000 - 16,999 BTU per Unit	\$ 1,250.00
ACS40	Room HP Replacement 17,000 - 17,999 BTU per Unit	\$ 1,250.00
ACS41	Room HP Replacement 18,000 - 23,999 BTU per Unit	\$ 1,270.00
ACS42	Room HP Replacement 24,000 BTU per Unit	\$1,270.00
ACS43	AC/HP Drain Pan	\$ 60.96
ACS44	AC/HP Adapter Plug	\$ 13.36
<b>MISCELLANEOUS</b>		
LABORS06	High Ceiling charge per fixture	\$ 3.50
LABORS07	Scissor Lift per day	\$280.00
<b>ADDITIONAL SERVICES (CONSULTING)</b>		
LABOR04	RHA Labor (hourly)	\$ 66.00
LABOR05	Small Business Energy Audit & Report less than 75kW	\$200.00
LABOR06	Small Business Advanced Energy Audit & Report	\$500.00
LABOR06a	Billing Inquiry/High Bill Complaint Energy Audit & Report	\$500.00
LABOR07	Measurements and Verification (Metering hourly rate)	\$110.00
LABOR08	IT Consulting Services (hourly)	\$ 90.00
LABOR11	Smart Thermostat Installation Only	\$164.00

*INDUSTRY PUBLIC UTILITIES COMMISSION*

ITEM NO. 5.7



# INDUSTRY PUBLIC UTILITIES COMMISSION

## MEMORANDUM

**TO:** Honorable President and Members of the Industry Public Utilities Commission

**FROM:** Troy Helling, Public Utilities Director *TH*

**STAFF:** Joshua Nelson, Contract IPUC Engineer, CNC Engineering *JN*  
Dev Birla, Operations Manager, CNC Engineering *D.P.B.*

**DATE:** March 28, 2019

**SUBJECT:** Consideration of the WSPP Agreement and Membership to facilitate the purchase of power by the IPUC

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### Background

Industry Public Utilities Commission (“IPUC”) has secured a fixed-price power contract to meet 49 percent (49%) of the forecasted customer power requirements through December 31, 2019. To mitigate the risk of price volatility in the wholesale power supply market and assess the need for any associated changes in customer rates to recover such costs, IPUC plans to solicit competitive fixed-price bids from potential power suppliers for the forecasted customer power, renewable energy regulatory requirements, and resource capacity requirements.

In order to execute a contract for the supply of electricity, a master enabling agreement is typically established between the IPUC and the potential power supplier containing the terms and conditions that will govern all purchase and/or sale transactions between the two parties. Should the IPUC elect to purchase power from a supplier, details of the transaction (price, quantity, term, etc.) are stated on a transaction confirmation form. There is no financial/fiscal impact associated with a master agreement until a transaction confirmation form is executed under the agreement. With the objective of providing an adequate supply of electricity and meeting the regulatory requirements for renewable energy at competitive rates for its customers, IPUC staff has been actively working to establish additional master agreements with potential power suppliers. The proposed WSPP Agreement will enable the IPUC to receive offering prices and complete transactions from a number of potential suppliers. The WSPP Agreement is based on the standard format that was originally drafted by representatives from utilities across the western United States to facilitate orderly trading in and development of the wholesale power market and modified according to the terms and conditions stated on the Confirmation. The WSPP Agreement is open to power sellers and load serving entities. Currently, there are more than 275 parties to the WSPP Agreement throughout the United States and Canada, including private, public and governmental entities, financial

institutions and aggregators, as well as wholesale customers. Members include the Cities of: Apple Valley; Alameda; Anaheim; Azusa; Banning; Burbank; Cerritos; Colton; Corona; Glendale; Lancaster; Lodi; Los Angeles; Moreno Valley; Palo Alto; Pasadena; Pittsburg; Rancho Cucamonga; Redding; Riverside; Roseville; San Francisco; San Jose; Santa Clara; and Vernon. The power marketers include: Bonneville; BP; Brookfield; Calpine; Citigroup; Dynergy; EDF; Exelon; JP Morgan; Macquarie; Merrill Lynch; Nextera; Powerex; and Shell.

### **Provisions of the WSPP Agreement include:**

#### **General Terms for Sales under WSPP Agreement**

The WSPP Agreement represents a default standardized contract for electric power sales and physical options. That is, if the parties to a WSPP transaction do not mutually agree to changes to the WSPP Agreement, the terms of the WSPP Agreement will control. The WSPP Agreement, however, provides parties with the flexibility on the major terms to modify the agreement, by their mutual agreement, to be applied to any WSPP transaction. The WSPP Agreement, by its terms, only applies to transactions between WSPP members.

#### **Products**

The WSPP Agreement includes five service schedules: economy energy service; unit commitment service; or sale or exchange of firm energy or capacity; seller-specific, cost-based rate; and bundled and unbundled renewable energy certificates.

#### **Confirmation Process**

Confirmation agreements will include transaction specific terms including changes to the base agreement to which the parties mutually agree. Oral confirmation agreements will be permitted for transactions of less than one week. Written confirmations shall be required for transactions of one week or more. Upon request of purchaser or at election of seller, seller must provide written confirmation within five days of the request or agreement. Purchaser has five days in which to respond. If purchaser does not respond, seller's written confirmation shall be considered final. If seller fails to provide a requested written confirmation, then the purchaser may submit a written confirmation within five days after the deadline for submitting a written confirmation. If seller fails to respond within five business days, purchaser's confirmation is considered final. At any time if a party states that it will not accept modifications to the WSPP agreement proposed by one party, then those modifications will be rejected.

#### **Modifying the Agreement**

The parties to a transaction by mutual agreement may modify many of the major terms of the WSPP agreement for that transaction. Any such modification must be set forth in a confirmation agreement. The only provisions which may be modified are those which the WSPP agreement expressly states may be modified.

#### **Force Majeure**

In general, force majeure is an event beyond a party's control. Parties are required to exercise due diligence to overcome or avoid. A force majeure claim will not stand if a

party's failure of performance is due to causes arising out of its own negligence or due to causes which it could remove or remedy. There are special provisions governing an interruption in transmission service. First, if the parties agreed on a specific transmission path at the time of the transaction, obtained firm transmission, and that firm transmission was interrupted, that would be a force majeure event. Second, if the parties did not agree on a specific transmission path, and a party's firm transmission was interrupted due to a force majeure event, then the party which booked the firm transmission may not declare force majeure if it could obtain alternate energy or means of delivering the energy to the delivery point.

### **Damages**

No punitive or consequential damages are allowed. The only damages allowed are essentially cover type damages. For a seller's failure to deliver, it will pay damages based on the purchaser's replacement price less the original contract price plus the amount of additional transmission costs less transmission savings. For a purchaser's failure to take service, the purchaser will pay damages based on the seller's new contract price less the original sales price plus any additional net transmission charges the seller incurs. Each party has a duty to minimize damages in a commercially reasonable manner.

### **Default**

Events of default are defined in the agreement to include (1) the failure to make payment (when the payment date has been missed) within two business days of notice to provide payment; (2) failure to provide clear and good title or to have made accurate representations and warranties; (3) institution of proceedings indicating bankruptcy or insolvency; (4) failure to provide adequate assurances of creditworthiness within three business days of demand for such assurances. In the event of default, the non-defaulting party may terminate all WSPP transactions between the parties so long as it exercises that right to terminate within 30 days (or longer if the parties agree to an extension). Upon termination, liquidation of Service Schedule B and C transactions shall occur. Essentially, the value of the terminated transactions out to the date of termination will be estimated to determine the liquidated amounts plus costs associated with such termination. Revenues based on expected market prices, present valued, will be used in calculating the liquidation payments.

### **Payment**

Unless the parties agree to different payment dates, payments are to be received on the 20th day of the invoicing month or the 10th day after receipt of the bill, whichever is later. Interest for late payments is one percent per month unless the parties agree to a different rate. In the event of a dispute, the entire bill shall be paid when due. Parties have two years to audit and dispute bills.

### **Creditworthiness**

If one party has a reasonable basis for questioning the other party's creditworthiness or ability to perform, that party may require the other party to provide a letter of credit, a cash prepayment, collateral or security, a guarantee agreement, or some other mutually agreeable method of assuring performance. The second party has three business days



to provide such assurances; failure to provide such assurances will be considered an event of default leading to termination and liquidation of all WSPP transactions between the parties. The second party's obligations to provide a letter of credit, deposits, etc. will be limited to the level of damages which the party would owe for non-performance. The agreement also lists certain events which would allow calling for reasonable assurance, including (1) knowledge that one party is failing to perform under other contracts; (2) a party exceeding any credit or trading limit; (3) downgrading of debt below investment grade; and (4) substantial changes in market prices which materially impact a party's ability to perform.

### **Performance, Title, and Warranties**

Seller's obligation is to sell and deliver to the delivery point(s) in accordance with the WSPP Agreement and the applicable confirmation agreement. Purchaser's obligation is to receive and purchase at the delivery point in accordance with the WSPP Agreement and applicable confirmation agreement. Title to and risk of loss shall pass to purchaser at the delivery point. Seller warrants good title, free of liens or attachments but disclaims all other warranties including any warranty of merchantability or fitness for a particular purpose.

### **Mediation and Dispute Resolution**

Before binding dispute resolution or any other litigation may proceed, the parties must engage in non-binding mediation. This can be a conference with the chairman of the Operating Committee and General Counsel, or it can be mediation with a mediator. If mediation fails, the parties must use binding dispute resolution to resolve disputes involving the calculation of the stipulated damages and liquidation amounts. For all other disputes, binding dispute resolution is discretionary. The WSPP dispute resolution process will use arbitrators who will come from WSPP member companies as well as other sources. The procedures are Exhibit D to the WSPP Agreement.

### **Discussion:**

Similar to the existing enabling agreements the IPUC has established with other energy suppliers, the proposed WSPP Agreement provides for specific incremental Confirmation Orders that specify the details of the transaction. By executing the proposed WSPP Agreement, the IPUC will be able to include WSPP members in its solicitation of competitive fixed-price bids for power, renewable energy and capacity requirements. After review of the agreement, there are a few concerns regarding the public records act and disputes that may arise with other parties to the agreement, Staff is therefore seeking authority to negotiate those points with WSPP.

### **Fiscal Impact:**

There is a one-time membership fee of \$25,000 that can be spread over three annual payments. There are no annual dues as a member of WSPP. The WSPP Agreement does provide for periodic payments, if necessary, to fund the organization's ongoing expenses. In their 30-year history, the only additional assessment was a \$2,000 payment per member in 2013. There has been no other membership assessment and no additional assessment is expected.

**Recommendation:**

It is recommended that the IPUC Board approve the IPUC membership into the WSPP pending final sign off by the legal counsel and authorize the Public Utilities Director to execute it. The expenditures of \$25,000 is in three installments of \$8,500 upon signing the WSPP Agreement; \$8,500 on the first anniversary and \$8,000 on the second anniversary.

**Exhibits:**

- A. WSPP Agreement
  - B. IPUC Request to join WSPP
- 

TH/JN/DB:jv

**EXHIBIT A**

WSPP Agreement

[Attached]

## **WSPP Agreement Changes Effective March 26, 2018**

This version includes all revisions approved by the Federal Energy Regulatory Commission (FERC) in orders issued through June 21, 2018. The most recent revisions are to the List of Members within the Agreement, per the unpublished letter order dated June 21, 2018 (Docket No. ER18-1650-000). The FERC accepted the revisions effective March 26, 2018 for metadata and, for each change in the Member List, on the applicable date of the change as stated in the order.

This version of the WSPP Agreement is prepared for the convenience of WSPP Members. The WSPP Agreement as filed with the FERC is available at [www.FERC.gov](http://www.FERC.gov) and specifically <http://etariff.ferc.gov/TariffList.aspx>.

This explanatory page is not part of the WSPP Agreement and is not filed with the FERC.

# **WSPP AGREEMENT**

**WSPP INC.**  
**FIRST REVISED RATE SCHEDULE FERC NO. 6**  
Superseding  
Rate Schedule FERC No. 6

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LIST OF MEMBERS



**1. PARTIES:**

The Parties to this WSPP Agreement (hereinafter referred to as "Agreement") are those entities that have executed this Agreement, hereinafter sometimes referred to individually as "Party" and collectively as "Parties," but excluding any such entity that withdraws its participation in the Agreement. An entity shall become a Party on the date specified in Section 16.6.

## **2. RECITALS**

- 2.1 Through this Agreement, the WSPP administers a multi-lateral, standardized agreement applicable to capacity and/or energy transactions between members and is available to entities (which qualify for membership under Section 16) throughout the entire continental United States, Canada, and Mexico.
- 2.2 This Agreement serves two functions. First, it sets out the rules applicable to the operation of the WSPP. Second, it sets out the terms for the standardized agreement used for capacity and/or energy transactions between members.
- 2.3 This Agreement facilitates physical transactions in capacity and/or energy under a FERC accepted or approved rate schedule (this Rate Schedule FERC No. 6).
- 2.4 Through the standardization of terms for transactions in capacity and/or energy which facilitates such transactions, the public interest has been and will continue to be served.

**3. AGREEMENT:**

In consideration of the mutual covenants and promises herein set forth, the Parties agree as follows:

**4. DEFINITIONS:**

The following terms, when used herein with initial capitalization, whether in the singular or in the plural, shall have the meanings specified:

Agreement: This WSPP Agreement, including the Service Schedules and Exhibits attached hereto, as amended; provided, however, that Confirmation(s) are not included within this definition.

Administrative Committee: A sub-committee of the Executive Committee in accordance with Section 8.1.2.

Broker: An entity or person that arranges trades or brings together Purchasers and Sellers without taking title to the power.

Business Day(s): Any day other than a Saturday or Sunday or a national (United States or Canadian, whichever is applicable) holiday. United States holidays shall be holidays observed by Federal Reserve member banks in New York City. Where both the Seller and the Purchaser have their principal place of business in the United States, Canadian holidays shall not apply. Similarly, where both the Seller and the Purchaser have their principal places of business in Canada, Canadian holidays shall apply and United States holidays shall not apply. In situations where one Party has its principal place of business within the United States and the other Party's principal place of business is within Canada, both United States and Canadian holidays shall apply.

California ISO: The California Independent System Operator Corporation or any successor organization.

Confirmation(s): The confirmations for transactions developed and made effective in accordance with Section 32 or Electronic Platform Confirmations.

Contract Price: The price agreed to between the Seller and the Purchaser for a transaction under the Agreement and Confirmation.

Contract Quantity: The amount of capacity and/or energy to be supplied for a transaction under the Agreement.

Control Area: An electric system capable of regulating its generation in order to maintain its interchange schedule with other electric systems and to contribute its frequency bias obligation to the interconnection as specified in the North American Electric Reliability Council (NERC) Operating Guidelines.

Costs: As defined in Section 22.3 of this Agreement.

Damages Settlement Transaction: A transaction where, after non-performance under a Confirmation, the Parties enter into a second transaction for the purpose of finally settling damages incurred by the Performing Party due to non-performance of such Confirmation.

Dealer: An entity or person that buys or sells power and takes title to the power at some point.

Defaulting Party: As defined in Section 22.1 of this Agreement.

Determination Period: As defined in Section 38.2 of this Agreement.

Documentary Writing: A document which is physically delivered by courier or U.S. mail, or a copy of which is transmitted by telefacsimile or other electronic means.

Economy Energy Service: Non-firm energy transaction whereby the Seller has agreed to sell or exchange and the Purchaser has agreed to buy or exchange energy that is

subject to immediate interruption upon notification, in accordance with the Agreement, including Service Schedule A, and any applicable Confirmation.

Electric Utility: An entity or lawful association which (i) is a public utility, Independent Power Producer, or Power Marketer regulated under applicable state law or the Federal Power Act, or (ii) is exempted from such regulation under the Federal Power Act because it is the United States, a State or any political subdivision thereof or an agency of any of the foregoing, or a Rural Utilities Service cooperative, or (iii) is a public utility, Independent Power Producer, or Power Marketer located in Canada or Mexico that is similarly regulated.

Electronic Platform Confirmation: agreed terms and conditions of a transaction, which agreement (a) was made through electronic entry of information and terms on, and in a manner that complies with the procedures of, the applicable electronic trading platform or exchange, (b) includes, at a minimum, the Standard Confirmation Provisions, and (c) is available to either Party for retrieval from the applicable electronic trading platform or exchange in printable or electronic form.

Electronic Writing:

- (1) Recorded oral conversation; or
- (2) electronic communications, including but not limited to e-mail, if the Parties to the transaction use such method to create an electronic writing for the Confirmation for such transaction and, except with respect to e-mail, specifically agree to the method of electronic communication.

Electronic Writings shall not include the transmittal of a copy of a document by electronic means, which is considered a Documentary Writing.

ERCOT: Electric Reliability Council of Texas, Inc., and any successor organization.

Event of Default: As defined in Section 22.1 of this Agreement.

Executive Committee: The committee established pursuant to Section 8 of this Agreement.

FERC: The Federal Energy Regulatory Commission or its regulatory successor.

Firm Capacity/Energy Sale or Exchange Service: Firm capacity and/or energy transaction whereby the Seller has agreed to sell or exchange and the Purchaser has agreed to buy or exchange for a specified period available capacity with or without associated energy which may include a Physically-Settled Option and a capacity transaction in accordance with the Agreement, including Service Schedule C, and any applicable Confirmation.

First Party: As defined in Section 27 of this Agreement.

Floating Price: As defined in Section 38.1 of this Agreement.

Gains: As defined in Section 22.3 of this Agreement.

Guarantee Agreement: An agreement providing a guarantee issued by a parent company or another entity guaranteeing responsibility for obligations arising under this Agreement and Confirmation. A sample form of Guarantee Agreement is provided in Exhibit B.

Guarantor: The entity providing a guarantee pursuant to a Guarantee Agreement.

Hub: An electronic communication center that functions as a central point to electronically receive and assemble data for offers to buy or sell power or transmission service from each Party and make that data electronically available concurrently to all Parties.

Incremental Cost: The forecasted expense incurred by the Seller in providing an additional increment of energy or capacity during a given hour.

Independent Power Producer: An entity which is a non-traditional public utility that produces and sells electricity but which does not have a retail service franchise.

Letter of Credit: An irrevocable, transferable, standby letter of credit, issued by an issuer acceptable to the Party requiring the Letter of Credit.

Losses: As defined in Section 22.3 of this Agreement.

Market Disruption Event: As defined in Section 38.2 of this Agreement.

NERC: North American Electric Reliability Council or any successor organization.

Non-Defaulting Party: As defined in Section 22.1(a) of this Agreement.

Non-Performing Party: As defined in Section 21.3(a) of this Agreement.

Non-Standard Confirmation Provisions: Provisions other than Standard Confirmation Provisions.

NYMEX: New York Mercantile Exchange and any successor organization.

Operating Agent: An agent of the WSPP as may be designated by the Executive Committee from time to time.

Operating Committee: That committee established pursuant to Section 8 of this Agreement.

Party or Parties: As defined in Section 1 of this Agreement.



Performing Party: As defined in Section 21.3(a) of this Agreement.

Power Marketer: An entity which buys, sells, and takes title to electric energy, transmission and/or other services from traditional utilities and other suppliers.

Physically-Settled Option: Includes (i) a call option which is the right, but not the obligation, to buy an underlying power product as defined under Service Schedules B or C according to the price and exercise terms set forth in the Confirmation; and (ii) a put option which is the right, but not the obligation, to sell an underlying power product as defined under Service Schedules B or C according to the price and exercise terms set forth in the Confirmation.

Premium: The amount paid by the Purchaser of a Physically-Settled Option to the Seller of such option by the date agreed to by the Parties in the Confirmation.

Present Value Rate: As defined in Section 22.3(b) of this Agreement.

Purchaser: Any Party which agrees to buy or receive from one or more of the other Parties any service pursuant to the Agreement and any applicable Confirmation.

Qualifying Facility: A facility which is a qualifying small power production facility or a qualifying cogeneration facility as these terms are defined in Federal Power Act Sections 3(17)(A), 3(17)(C), 3(18)(A), and 3(18)(B); which meets the requirements set forth in 18 C.F.R. §§ 292.203-292.209; or a facility in Canada or Mexico that complies with similar requirements.

Replacement Price: The price at which the Purchaser, acting in a commercially reasonable manner, effects a purchase of substitute capacity and/or energy in place of the capacity and/or energy not delivered (for energy) or made available (for capacity only) by the Seller or, absent such a purchase, the market price for

such quantity of capacity and/or energy, as determined by the Purchaser in a commercially reasonable manner, at the delivery point specified for the transaction in the Confirmation.

Resale Price: The price at which the Seller, acting in a commercially reasonable manner, effects a resale of the capacity and/or energy not received by the Purchaser or, absent such a resale, the market price for such quantity of capacity and/or energy, as determined by the Seller in a commercially reasonable manner at the delivery point specified for the transaction in a Confirmation.

Retail Entity: A retail aggregator or supplier or retail customer; provided, however, only those Retail Entities eligible for transmission service under the FERC's pro forma open access transmission tariff are eligible to become members of the WSPP.

Second Party: As defined in Section 27 of this Agreement.

Seller: Any Party which agrees to sell or provide to one or more of the other Parties any service pursuant to the Agreement and the applicable Confirmation.

Service Schedule: A schedule of services established pursuant to Section 6 of this Agreement on file with FERC as part of this Agreement.

Standard Confirmation Provisions: Provisions setting forth: Seller, Purchaser, period of delivery, schedule, delivery rate, delivery points, type of service (e.g. Service Schedule A, B, C or other), contract quantity, price, transmission path (if any), date, and certain additional information for physically settled options (option type, option style, exercise date or period, premium, premium payout date, and method for providing notice of exercise).

Successor in Operation: The successor entity which takes over the wholesale electric trading operations of the first entity either through a merger or restructuring. A Successor in Operation shall not include an entity which merely acquires power sales contracts from the first entity either through a purchase or other means without taking over the wholesale electric trading operations of the first entity.

Terminated Transaction: As defined in Section 22.2 of this Agreement.

Termination Payment: As defined in Section 22.2 of this Agreement.

Trading Day: As defined in Section 38.2 of this Agreement.

Uncontrollable Forces: As defined in Section 10 of this Agreement or in a Confirmation.

Unit Commitment Service: A capacity and/or associated scheduled energy transaction or a Physically-Settled Option under which the Seller has agreed to sell and the Purchaser has agreed to buy from a specified unit(s) for a specified period, in accordance with the Agreement, including Service Schedule B, and any applicable Confirmation.

WSPP: WSPP Inc., a corporation organized in 1995 and duly existing under the Utah Revised Nonprofit Corporation Act.

WSPP Default Transmission Tariff: The transmission tariff filed on behalf of WSPP members with FERC as it may be amended from time to time.

WSPP Homepage: WSPP's internet web site, [www.wspp.org](http://www.wspp.org).

**5. TERM, TERMINATION AND WITHDRAWAL:**

- 5.1 This Agreement shall remain in effect until the Executive Committee, consistent with the voting provisions of Section 8.3, votes to terminate this Agreement and FERC accepts that termination, or FERC otherwise terminates the Agreement.
- 5.2 Any Party may withdraw its participation as a member of the WSPP and as a Party to this Agreement by providing thirty (30) days prior written notice to the Operating Agent and to the WSPP Homepage, and to all of its counterparties to outstanding transactions. As of the effective date of any withdrawal, the withdrawing Party shall have no further rights or obligations under this Agreement or as a member of the WSPP, except with respect to each outstanding Confirmation, all outstanding rights and obligations arising under any such Confirmation and this Agreement shall remain in full force and effect as if the withdrawal had not occurred. No Party shall oppose, before any court or regulatory agencies having jurisdiction, any other Party's withdrawal as provided in this Section.
- 5.3 Except as provided for in Section 5.2, after termination, or withdrawal with respect to the withdrawing Party, all rights to services provided under this Agreement shall cease, and no Party shall claim or assert any continuing right to such services thereunder. Except as provided in Section 5.2, no Party shall be required to provide services based in whole or in part on the existence of this Agreement or on the provision of services under this Agreement beyond the termination date, or date of withdrawal with respect to the withdrawing Party. If the Parties have entered into a master confirmation agreement only for WSPP

transactions as that term is defined in Section 32.10, the withdrawing Party shall have no further rights under that master confirmation agreement except for transactions that were outstanding at the time of the withdrawal.

- 5.4 The Parties subject to FERC jurisdiction under the Federal Power Act shall have the right to terminate their participation as a Member of the WSPP and as Party to this Agreement and any Confirmation without the necessity of filing with or approval by FERC, provided that such Parties comply with the requirements of Section 5.2.

**6. SERVICE SCHEDULES AND WSPP DEFAULT TRANSMISSION TARIFF:**

6.1 The Parties contemplate that they may, from time to time, add or remove Service Schedules under this Agreement. The attached Service Schedules A through E for Economy Energy Service, Unit Commitment Service, Firm Capacity/Energy Sale or Exchange Service, Operating Reserve – Spinning and Operating Reserve – Supplemental, and Energy Imbalance and Generator Imbalance Power, and Service Schedule R for Renewable Energy Certificate Transactions With And Without Energy, are incorporated into and made a part of this Agreement. Nothing contained herein shall be construed as affecting in any way the right of the Parties to jointly make application to FERC for a change in the rates and charges, classification, service, terms, or conditions affecting WSPP transactions under Section 205 of the Federal Power Act and pursuant to FERC rules and regulations promulgated thereunder. Additional Service Schedules or amendments to existing Service Schedules, if any, shall be adopted only by amendment of this Agreement approved by the Executive Committee pursuant to Section 8.3 and shall become effective on the effective date allowed or accepted by FERC consistent with Section 39.

6.2 **[RESERVED]**

6.3 When the WSPP Default Transmission Tariff applies as specified in the preamble to such Default Transmission Tariff, Transmission Service under it shall be available both to Parties and non-Parties under this Agreement; provided, however, each Party or non-Party must be an eligible customer under the WSPP Default Transmission Tariff in order to receive service.

**7. ADMINISTRATION:**

- 7.1 The WSPP shall perform the administrative tasks necessary and appropriate to implement this Agreement. All authority to direct, manage and administer the WSPP shall reside in the Executive Committee. All duties assigned under this Agreement, or otherwise, to the Operating Committee, sub-committees, officers, Administrative Committee, or Operating Agent, are delegated powers of the Executive Committee and are subject to the Executive Committee's direction and control. The WSPP may engage the services of an Operating Agent, from time to time, to perform tasks in furtherance of this Agreement.
- 7.2 At least sixty (60) days prior to each calendar year that this Agreement is in effect, the Administrative Committee shall submit a budget for said year of operation to the Operating Committee for review. The proposed budget shall then be submitted, with the Operating Committee's recommendations, to the Executive Committee. The Executive Committee may approve the budget as submitted or with revisions. The Administrative Committee, Operating Committee, and Executive Committee shall address any appropriate revisions of the budget in the same manner.
- 7.3 The WSPP shall, as necessary, bill the Parties for costs incurred under this Agreement on an estimated basis reasonably in advance of when due, and such billings shall be paid by the Parties when due. Such billings shall be adjusted in the following month(s) to reflect recorded costs. Billing and payment of WSPP costs shall otherwise be implemented in accordance with the provisions of Section 9.

- 7.4 The WSPP shall maintain the WSPP Homepage and, as it deems appropriate, may engage a contractor for this purpose.
- 7.5 Each Party shall maintain a link to the WSPP Homepage and shall be responsible for expenses related thereto.
- 7.6 The WSPP, at reasonable times and places, shall make available its books of account, and records and documentation supporting expenditures under this Agreement, for the inspection of any Party for a period of time not to exceed two (2) years from the time such expenditures were incurred. A Party requesting review of the WSPP's records shall give the WSPP sufficient notice of its intent, but in no event less than thirty (30) days. The requesting Party may perform this review using personnel from its own staff or designate a certified public accounting firm for the purpose of this review. All costs incurred to perform this review shall be at the requesting Party's own expense. The Party performing the review shall not voluntarily release the WSPP's records or disclose any information contained therein to any third party unless the written consent of the WSPP and the Executive Committee has been obtained, except as required by law.
- 7.7 Upon the termination of this Agreement, in accordance with applicable law, the WSPP shall dispose of any and all of its assets and wind up its affairs as the Executive Committee may direct.



## **8. EXECUTIVE AND OPERATING COMMITTEES:**

As a means of securing effective and timely cooperation within the activities hereunder and as a means of dealing on a prompt and orderly basis with various problems which may arise in connection with system coordination and operation under changing conditions, the Parties hereby establish an Executive Committee and an Operating Committee.

### **8.1 Executive Committee:**

The Executive Committee shall consist of one representative and an alternate from each Party designated pursuant to Section 8.5 herein. The responsibilities of the Executive Committee are as follows:

- 8.1.1 To establish and amend bylaws of the WSPP consistent with this Agreement and to serve as the Board of Directors of the WSPP in accordance with applicable law.
- 8.1.2 To establish standing or ad hoc sub-committees as it may from time to time deem necessary or appropriate and appoint or elect members thereto. Such sub-committees shall include an Administrative Committee, as a standing committee, to administer the affairs of the WSPP as the Executive Committee may direct or approve. The Administrative Committee shall be comprised of the Chairman, Vice-Chairman, Secretary and Treasurer of the WSPP and the Chairman, and Vice-Chairman, and Secretary of the Operating Committee.
- 8.1.3 To review at least annually the service activities hereunder to ensure that such activities are consistent with the spirit and intent of this Agreement.

- 8.1.4 To review any unresolved issues which may arise hereunder and endeavor to resolve the issues.
- 8.1.5 To review and approve the WSPP's annual budget under this Agreement, and any revision thereto, in accordance with Section 7.2 of this Agreement or otherwise as the Executive Committee deems necessary or appropriate.
- 8.1.6 To amend this Agreement, from time to time, provided that no such amendment or restatement shall be effective unless approved or accepted by the FERC and subject to terms and conditions of such approval or acceptance. The effectiveness of any amendment also shall be consistent with Section 39.
- 8.1.7 To review and act on the application of an entity to become a Party to this Agreement, or to delegate such authority as the Executive Committee deems appropriate.
- 8.1.8 To do such other things and carry out such duties as specifically required or authorized by this Agreement.
- 8.1.9 To notify any Party of the rescission of its interest in this Agreement due to its failure to continue to meet the requirements of Section 16.1, or to delegate such authority to the Chairman of the Executive Committee, the Chairman of the Operating Committee, or the Administrative Committee.
- 8.1.10 To arrange for legal representation of the WSPP.

8.2 Operating Committee:

The Operating Committee shall consist of one representative and an alternate from each Party designated pursuant to Section 8.5. The responsibilities of the Operating Committee are as follows:

- 8.2.1 To establish, review, approve, or modify procedures and standard practices, consistent with the provisions hereof, for the guidance of operating employees in the Parties' electric systems as to matters affecting transactions under this Agreement.
- 8.2.2 To submit to the Executive Committee any proposed revisions to the Service Schedules or proposed additional Service Schedules.
- 8.2.3 To submit to the Executive Committee proposed amendments to this Agreement, provided that the Operating Committee shall have no authority to amend this Agreement, and further provided that the Executive Committee may amend this Agreement under Section 8.1.6 without having first received recommendations from the Operating Committee.
- 8.2.4 To establish, review, approve, or modify any scheduling or operating procedures required in connection with transactions under this Agreement.
- 8.2.5 To review and make recommendations to the Executive Committee for approval of the annual budget of the WSPP under this Agreement, including any proposed revisions thereto.
- 8.2.6 To review and recommend as necessary the types and arrangement of equipment for intersystem communication facilities to enhance transactions and benefits under this Agreement.
- 8.2.7 To monitor the administration and costs of the WSPP Homepage.
- 8.2.8 If the Executive Committee so directs, to review new member applications for membership in the WSPP under this Agreement and make

recommendations on said applications to the Executive Committee, or to delegate such authority as the Operating Committee deems appropriate.

8.2.9 To establish standing or ad hoc sub-committees and appoint or elect members of the Operating Committee thereto, provided that such sub-committees shall make recommendations to the Operating Committee and shall not be authorized to take any action or exercise any power reserved to the Operating Committee. Each sub-committee may elect a chairman, vice chairman, and secretary as it deems appropriate.

8.2.10 To do such other things and carry out such duties as specifically required or authorized by this Agreement or as directed by the Executive Committee; provided, however, that the Operating Committee shall have no authority to amend this Agreement.

8.3 All matters which require Operating Committee or Executive Committee approval as provided in this Agreement shall be by no less than ninety percent (90%) affirmative agreement of the committee members present or voting by proxy.

8.4 Unless otherwise agreed by all committee members of the Executive Committee or Operating Committee, as applicable, the Chairman of the Executive Committee and the Chairman of the Operating Committee shall cause all members of the applicable committee to receive notice of a committee meeting at least ten (10) Business Days prior to the date of the meeting. Such notice shall include an agenda of matters to be discussed and voted on at the meeting. All material issues to be submitted to a vote of the committee shall appear on the agenda.

- 8.5 In accordance with Section 16.5.1, each Party shall give notice to the WSPP of the name of its designated representative and alternate representative (to act in the absence of the designated representative) on each of the Executive Committee and Operating Committee, and of any changes thereto, and WSPP shall publish a listing of all such representatives on the WSPP Homepage. Each Party's designated representatives shall be authorized to act on its behalf with respect to votes taken of members of each committee and other activities of the committee.
- 8.6 The Executive Committee shall meet no less than once annually and otherwise as determined by its Chairman in his discretion. The Operating Committee shall meet as necessary, as determined by its Chairman in his discretion. A Chairman shall call a meeting of such committee upon the written request of not less than ten (10) members of the applicable committee.
- 8.7 The Executive Committee shall elect a Chairman, Vice-Chairman, Secretary and Treasurer. The Operating Committee shall elect a Chairman, Vice-Chairman, and Secretary. These officers shall serve terms of two-years duration, which terms shall commence on January 1 of the year following the election and expire on December 31 of the subsequent year, provided, that despite the expiration of an officer's term, the officer shall continue to serve until the officer's successor is elected and commences to serve, and further provided that with or without cause, the Executive Committee or Operating Committee, as applicable, may elect a substitute officer prior to the expiration of a term.
- 8.7.1 The Chairman of the Executive Committee shall be the Chairman of the WSPP. The Chairman shall preside over meetings of the Executive

Committee and, when the Executive Committee is not in session, exercise day to day management and control of the business and affairs of the WSPP, subject at all times to this Agreement and the direction of the Executive Committee.

8.7.2 The Vice-Chairman of the Executive Committee shall be the Vice-Chairman of the WSPP. The Vice-Chairman, in the absence or disability of the Chairman, shall exercise the powers and perform the duties of the Chairman and such other duties as the Executive Committee or the Chairman may prescribe, subject at all times to this Agreement and the direction of the Executive Committee.

8.7.3 The Secretary of the Executive Committee shall be the Secretary of the WSPP. The Secretary, or his designee, shall record minutes of meetings and actions of the Executive Committee, perform the customary duties of a secretary of a non-profit corporation, and attend to the giving and serving of all notices required by law or under this Agreement as the Chairman may direct.

8.7.4 The Treasurer of the Executive Committee shall be the Treasurer of the WSPP. The Treasurer shall have custody of all funds, securities, and evidences of indebtedness of the Corporation. The Treasurer shall receive and give receipts for moneys paid in on account of the Corporation and shall pay out of the funds on hand any bills, payrolls and other just debts of the Corporation of whatever nature upon maturity. The Treasurer shall maintain full and accurate accounts of all moneys received and paid out on account of

the Corporation. The Treasurer shall deposit all moneys and other valuables in the name and to the credit of the Corporation in such depositories as may be designated by the Executive Committee. The Treasurer shall adhere to budgets determined by the Executive Committee, including the annual budget under section 8.1.4 of this Agreement, and shall perform such other duties as are customary for a treasurer of a non-profit corporation.

8.7.5. The Chairman of the Operating Committee shall preside over Operating Committee meetings. The Vice Chairman of the Operating Committee shall serve in the absence of the Chairman and perform such other duties as the Operating Committee may assign. The Secretary of the Operating Committee, or his designee, shall record minutes of meetings and actions of the Operating Committee, and shall give notice of meetings as the Chairman may direct.

**9. PAYMENTS:**

- 9.1 The accounting and billing period for transactions under this Agreement shall be one (1) calendar month. Bills sent to any Party shall be sent to the appropriate billing address as set forth on the WSPP homepage or as otherwise specified by such Party.
- 9.2 Payments for amounts billed under this Agreement and any Confirmation shall be received by the Party to be paid on the 20th day of the month in which the invoice was received or the tenth (10) day after receipt of the bill, whichever is later. Notwithstanding the foregoing, Premiums shall be paid within three (3) Business Days of receipt of the invoice. Payment shall be made at the location designated by the Party to which payment is due. Payment shall be considered received when payment is received by the Party to which Payment is due at the location designated by that Party. If the due date falls on a non-Business Day of either Party, then the payment shall be due on the next following Business Day.
- 9.3 Amounts not paid on or before the due date shall be payable with interest calculated daily, at a rate equal to 200 basis points above the per annum Prime Rate reported daily in the Wall Street Journal for the period beginning on the day after the due date and ending on the day of payment, provided that such interest shall not exceed the amount permitted by law.
- 9.4 In order to dispute a bill in whole or in part, a Party must provide written notice of the dispute to the other Party to the transaction. Such written notice shall specify the amount in dispute and state the basis for the dispute. In case any portion of any bill is in dispute, the entire bill shall be paid when due. Any excess amount



of bills which, through inadvertent errors or as a result of a dispute, may have been overpaid shall be returned by the owing Party upon determination of the correct amount, with interest calculated in the manner set forth in Section 9.3. A Party shall have the right to dispute the accuracy of any bill or payment only for a period of two (2) years from the date on which the bill was initially delivered.

9.5 If a Party's records reveal that a bill was not delivered, then the Party may deliver to the appropriate Party a bill within two (2) years from the date on which the bill would have been delivered under Section 9.1 of this Agreement. The right to payment is waived with respect to any amounts not billed within such two (2) year period.

9.6 Each Party, or any third party representative of a Party, shall keep complete and accurate records, and shall maintain such data as may be necessary for the purpose of ascertaining the accuracy of all relevant data, estimates, or statements of charges submitted hereunder for a period of two (2) years from the date the bill was delivered under this Agreement and/or Confirmation.

Within a two (2) year period from the date on which the bill was initially delivered, any Party to the applicable transaction may request in writing copies of the records of the other Party for that transaction to the extent reasonably necessary to verify the accuracy of any statement or charge. The Party from which documents or data has been requested shall provide all reasonably requested documents and data within a reasonable time period.

**10. UNCONTROLLABLE FORCES:**

No Party shall be considered to be in breach of this Agreement or any applicable Confirmation to the extent that a failure to perform its obligations under this Agreement or any such Confirmation is due to an Uncontrollable Force. The term "Uncontrollable Force" means an event or circumstance which prevents one Party from performing its obligations under one or more transactions, which event or circumstance is not within the reasonable control of, or the result of the negligence of, the claiming Party, and which by the exercise of due diligence the claiming Party is unable to avoid, cause to be avoided, or overcome. So long as the requirements of the preceding sentence are met, an "Uncontrollable Force" may include and is not restricted to flood, drought, earthquake, storm, fire, lightning, epidemic, war, riot, act of terrorism, civil disturbance or disobedience, labor dispute, labor or material shortage, sabotage, restraint by court order or public authority, and action or nonaction by, or failure to obtain the necessary authorizations or approvals from, any governmental agency or authority.

The following shall not be considered "Uncontrollable Forces": (i) Seller's cost of obtaining capacity and/or energy; or (ii) Purchaser's inability due to the price of the capacity and/or energy, to use or resell such capacity and/or energy. No Party shall, however, be relieved of liability for failure of performance to the extent that such failure is due to causes arising out of its own negligence or due to removable or remediable causes which it fails to remove or remedy within a reasonable time period. Nothing contained herein shall be construed to require a Party to settle any strike or labor dispute in which it may be involved. Any Party rendered unable to fulfill any of its obligations by reason of an Uncontrollable Force shall give prompt notice of such fact and shall

exercise due diligence, as provided above, to remove such inability within a reasonable time period. If oral notice is provided, it shall be promptly followed by written notice.

Where the entity providing transmission services for transactions under this Agreement and Confirmation interrupts such transmission service, the interruption in transmission service shall be considered an Uncontrollable Force under this Section 10 only in the following two sets of circumstances:

- (1) An interruption in transmission service shall be considered an Uncontrollable Force if (a) the Parties agreed on a transmission path for that transaction in the Confirmation (b) firm transmission involving that transmission path was obtained pursuant to a transmission tariff or contract to effectuate the transaction under this Agreement and Confirmation, and (c) the entity providing transmission service curtailed or interrupted such firm transmission pursuant to the applicable transmission tariff or contract. There shall be no due diligence obligation associated with interruptions under this subparagraph (1).
- (2) If the Parties did not agree on the transmission path for a transaction in the Confirmation, an interruption in transmission service shall be considered an Uncontrollable Force only if (a) the Party contracting for transmission services shall have made arrangements with the entity providing transmission service for firm transmission to effectuate the transaction under the Agreement and Confirmation, (b) the entity providing transmission service curtailed or interrupted such transmission service, and (c) the Party which contracted for such firm transmission services could not obtain alternate energy at the delivery point,

alternate transmission services, or alternate means of delivering energy after exercising due diligence.

No Party shall be relieved by operation of this Section 10 of any liability to pay for power delivered to the Purchaser or to make payments then due or which the Party is obligated to make with respect to performance which occurred prior to the Uncontrollable Force.

**11. WAIVERS:**

Any waiver at any time by any Party of its rights with respect to a default under this Agreement or any Confirmation, or any other matter under this Agreement, shall not be deemed a waiver with respect to any subsequent default of the same or any other matter.

**12. NOTICES:**

12.1 Except for the oral notice provided for in Section 10 of this Agreement, any formal notice, demand or request provided for in this Agreement shall be in writing and shall be deemed properly served, given or made if delivered in person, or sent by either registered or certified mail (postage prepaid), prepaid telegram, fax, or overnight delivery (with record of receipt).

12.2 Notices and requests of a routine nature applicable to delivery or receipt of capacity and/or energy shall be given in such manner as the Parties to a transaction shall prescribe in a Confirmation or otherwise; provided, however, if the Parties have not prescribed a method of providing such routine notices, then the procedures in Section 12.1 shall apply.

**13. EFFECT OF APPROVALS:**

- 13.1 This Agreement and all Confirmations are subject to valid laws, orders, rules and regulations of duly constituted authorities having jurisdiction. Nothing contained in this Agreement or any Confirmation shall give FERC jurisdiction over those Parties not otherwise subject to such jurisdiction or be construed as a grant of jurisdiction over any Party by any state or federal agency not otherwise having jurisdiction by law.
- 13.2 Nothing in this Agreement or any Confirmation is intended to restrict the authority of the Bonneville Power Administration (BPA) pursuant to applicable statutory authority to use its existing wholesale power and transmission rates or to adopt new rates, rate schedules, or general rate schedule provisions for application under this Agreement and obtain interim or final approval of those rates from FERC pursuant to Section 7 of the Pacific Northwest Electric Power Planning and Conservation Act, 16 U.S.C. Sec. 839e, provided such rates do not exceed the maximum rates in the applicable Service Schedule and are consistent with the terms and conditions of said Service Schedule.
- 13.3 Nothing contained in this Agreement or any Confirmation shall be construed to establish any precedent for any other agreement or to grant any rights to or impose any obligations on any Party beyond the scope and term of this Agreement or any Confirmation.

**14. TRANSFER OF INTEREST IN AGREEMENT:**

No Party shall voluntarily transfer its membership in the WSPP under this Agreement without the written consent and approval of all other Parties except to a Successor in Operation of such Party. With regard to the transfer of the rights and obligations of any Party associated with transactions under this Agreement and Confirmation(s), neither Party to such transactions may assign such rights or obligations unless (a) the other Party provides its prior written consent which shall not be unreasonably withheld; or (b) the assignment is to a Successor in Operation which provides reasonable creditworthiness assurances (see Section 27 for examples of such assurances) if required by the non-assigning Party based upon its reasonably exercised discretion. Any successor or assignee of the rights of any Party, whether by voluntary transfer, judicial or foreclosure sale or otherwise, shall be subject to all the provisions and conditions of this Agreement and Confirmation(s) (where applicable) to the same extent as though such successor or assignee were the original Party under this Agreement or the Confirmation(s), and no assignment or transfer of any rights under this Agreement or any Confirmation(s) shall be effective unless and until the assignee or transferee agrees in writing to assume all of the obligations of the assignor or transferor and to be bound by all of the provisions and conditions of this Agreement and any Confirmation(s) (where applicable). The execution of a mortgage or trust deed or a judicial or foreclosure sale made thereunder shall not be deemed a voluntary transfer within the meaning of this Section 14.



**15. SEVERABILITY:**

In the event that any of the terms, covenants or conditions of this Agreement or any Confirmation, or the application of any such term, covenant or condition, shall be held invalid as to any person or circumstance by any court, regulatory agency, or other regulatory body having jurisdiction, all other terms, covenants or conditions of this Agreement and the Confirmation and their application shall not be affected thereby, but shall remain in force and effect unless a court, regulatory agency, or other regulatory body holds that the provisions are not separable from all other provisions of this Agreement or such Confirmation(s).

**16. MEMBERSHIP:**

- 16.1 Any Electric Utility, Retail Entity or Qualifying Facility may become a Party to this Agreement. The Executive Committee shall notify such Electric Utility, Retail Entity or Qualifying Facility of its decision within sixty (60) days of a request to become a Party to this Agreement, and any acceptable entity shall become a Party hereto by the execution of this Agreement or a counterpart hereof, payment of costs pursuant to Section 16.4, and concluding any necessary acceptance or approval referred to in Section 13. Any such Party, if it is subject to the ratemaking jurisdiction of FERC, shall be responsible for any FERC filing necessary for it to implement its performance under this Agreement.
- 16.2 Each Party shall continue to meet the requirements of Section 16.1 in order to remain a Party to this Agreement
- 16.3 Being a Party to this Agreement shall not serve as a substitute for contractual arrangements that may be needed between any Party which operates a Control Area and any other Party which operates within that Control Area.
- 16.4 Any entity that becomes a Party to this Agreement which was not a party to the experimental Western Systems Power Pool Agreement shall pay a one time fee of \$25,000 under this Agreement in recognition of prior efforts and costs incurred by the parties to the experimental Western Systems Power Pool Agreement, which efforts greatly facilitated development of this Agreement. Such fee shall be credited to future costs of the WSPP incurred hereunder.

16.5 In addition to requirements set forth elsewhere in this Agreement imposed on Parties as part of their membership in the WSPP, each Party shall abide by the following requirements:

16.5.1 Each Party shall maintain updated information regarding its Executive Committee and Operating Committee representatives on the WSPP Homepage and shall submit changes within a reasonable time period.

16.5.2 With regard to disputes involving transactions under this Agreement or other agreements, no Party shall seek to conduct discovery of the WSPP or issue or seek to obtain the issuance of any subpoena to the WSPP or WSPP officers acting in their capacities as officers of the WSPP or of the WSPP's attorneys or consultants with regard to their work for the WSPP or their opinions regarding the construction or interpretation of any clause of the Agreement, provided that the foregoing prohibition shall not apply in proceedings brought against the WSPP. In the event a Party seeks to compel discovery or testimony in violation of this Section, that Party shall be deemed to have consented to the quashing of the subpoena or other process providing therefor. Notwithstanding any other provision in this Agreement, a Party that seeks to conduct discovery or issue or seek to obtain the issuance of any subpoena in breach of this provision shall compensate the WSPP and its officers, attorneys, and consultants, as applicable, for all out-of-pocket costs incurred.

16.6 An entity shall become a Party to this Agreement and a member of the WSPP upon satisfaction of the requirements in this Section 16 and on the date allowed

by FERC if it is a FERC public utility or upon the date of satisfaction of the requirements in this Section 16 if it is not a FERC public utility.

**17. RELATIONSHIP OF PARTIES:**

- 17.1 Nothing contained in this Agreement or in any Confirmation shall be construed to create an association, joint venture, trust, or partnership, or agency relationship between or among the Parties, or to impose a trust or partnership covenant, obligation, or liability on or with regard to any of the Parties. Each Party shall be individually responsible for its own covenants, obligations, and liabilities under this Agreement and under any applicable Confirmation.
- 17.2 All rights and obligations of the Parties under this Agreement are several and are not joint.

**18. NO DEDICATION OF FACILITIES:**

Any undertaking by one Party to another Party under any provision of this Agreement shall not constitute the dedication of the electric system or any portion thereof of the undertaking Party to the public or to the other Party, and it is understood and agreed that any such undertaking under any provision of this Agreement by a Party shall cease upon the termination of such Party's obligations under this Agreement.

**19. NO RETAIL SERVICES:**

Nothing contained in this Agreement shall grant any rights to or obligate any Party to provide any services hereunder directly to or for retail customers of any Party.

**20. THIRD PARTY BENEFICIARIES:**

This Agreement shall not be construed to create rights, in, or to grant remedies to, any third party as a beneficiary of this Agreement or of any duty, obligation or undertaking established herein except as provided for in Section 14.



## **21. LIABILITY AND DAMAGES:**

21.1 This Agreement contains express remedies and measures of damages in Sections 21.3 and 22 for non-performance or default. This Agreement also contains additional remedies to enforce payment of monies due and to enforce terms of the Agreement and applicable Confirmations in Section 21.2.

### **ALL OTHER DAMAGES OR REMEDIES ARE HEREBY WAIVED.**

Therefore, except as provided in Sections 21.3 and 22, no Party or its directors, members of its governing bodies, officers or employees shall be liable to any other Party or Parties for any loss or damage to property, loss of earnings, or revenues, personal injury, or any other direct, indirect, or consequential damages or injury, or punitive damages, which may occur or result from the performance or non-performance of this Agreement (including any applicable Confirmation), including any negligence arising hereunder. Any liability or damages incurred by an officer or employee of a Federal agency or by that agency that would result from the operation of this provision shall not be inconsistent with Federal law.

21.2 Any Party due monies under this Agreement, the amounts of which are not in dispute or if disputed have been the subject of a decision awarding monies, (i) shall have the right to seek payment of such monies in any forum having competent jurisdiction and (ii) shall possess the right to seek relief directly from that forum without first utilizing the mediation or arbitration provisions of this Agreement and without exercising termination and liquidation rights under Section 22.

In addition, each Party shall possess the right to seek specific performance (injunctive relief) of the non-delivery related terms of this Agreement and any Confirmation in any forum having competent jurisdiction. In seeking to enforce the terms of this Agreement, however, consistent with Section 21.1, no Party is entitled to receive or recover monetary damages except as provided in Sections 21.3 and 22.

21.3 The following damages provision shall apply to all transactions under this Agreement. For transactions under Service Schedule A, however, this damages provision or some other damages provision will apply only if such a damages provision is agreed to through a Confirmation. The damages under this Section 21.3 apply to a Party's failure to deliver or receive (or make available in the case of capacity) capacity and/or energy in violation of the terms of the Agreement and any Confirmation. The Contract Quantity and Contract Price referred to in this Section 21.3 are part of the agreement between the Parties for which damages are being calculated under this Section.

(a) If either Party fails to deliver or receive (or make available in the case of capacity), as the case may be, the quantities of capacity and/or energy due under the Agreement and any Confirmation (thereby becoming a "Non-Performing Party" for the purposes of this Section 21.3), the other party (the "Performing Party") shall be entitled to receive from the Non-Performing Party an amount calculated as follows (unless performance is excused by Uncontrollable Forces as provided in Section 10, the applicable Service Schedule, or by the Performing Party):

- (1) If the amount the Purchaser scheduled or received in any hour is less than the applicable hourly Contract Quantity, then the Purchaser shall be liable for (a) the product of the amount (whether positive or negative), if any, by which the Contract Price differed from the Resale Price (Contract Price - Resale Price) and the amount by which the quantity provided to the Purchaser was less than the hourly Contract Quantity; plus (b) the amount of transmission charge(s), if any, for firm transmission service upstream of the delivery point, which the Seller incurred to achieve the Resale Price, less the reduction, if any, in transmission charge(s) achieved as a result of the reduction in the Purchaser's schedule or receipt of electric energy (based on Seller's reasonable commercial efforts to achieve such reduction). If the total amounts for all hours calculated under this paragraph (1) are negative, then neither the Purchaser nor the Seller shall pay any amount under this Section 21.3(a)(1).
- (2) If the amount the Seller scheduled or delivered (or made available in the case of capacity) in any hour is less than the applicable hourly Contract Quantity, then the Seller shall be liable for (a) the product of the amount (whether positive or negative), if any, by which the Replacement Price differed from the Contract Price (Replacement Price - Contract Price) and the amount by which the quantity provided by the Seller was less than the hourly Contract

Quantity; plus (b) the amount of transmission charge(s), if any, for firm transmission service downstream of the delivery point, which the Purchaser incurred to achieve the Replacement Price, less the reduction, if any, in transmission charge(s) achieved as a result of the reduction in the Seller's schedule or delivery (based on Purchaser's reasonable commercial effort to achieve such reduction). If the total amounts for all hours calculated under this paragraph (2) are negative, then neither the Purchaser nor the Seller shall pay any amount under this Section 21.3(a)(2).

- (3) The Non-Performing Party also shall reimburse the Performing Party for any charges imposed on the Performing Party under open access transmission or FERC accepted or approved tariffs for regional organizations due to the non-performance.
- (4) The Non-Performing Party shall pay any amount due from it under this section within the billing period as specified in Section 9 of this Agreement or agreed to in the applicable Confirmation if the Parties agreed to revise the billing period in Section 9.
- (5) In the event (a) two Parties entered into two or more Confirmations in which the same Party is the Purchaser and the other Party is the Seller, (b) deliveries under two or more of such Confirmations are to occur, in whole or in part, on the same date and hour, and at the same delivery point, and (c) as to such date, hour, and delivery point, and with respect to one or more of such Confirmations, a

Party is a Non-Performing Party (for purposes of this Section 21.3(a)(5), each such instance of non-performance, a “non-performed transaction”), then, as set out in this Section 21.3(a)(5), each non-performed transaction shall be identified to a Confirmation, and the Contract Price of the Confirmation to which the non-performed transaction is identified, and the Contract Quantity of the non-performed transaction, shall be applied to the calculation of amounts due under Section 21.3(a)(1) through (3), as applicable.

The Parties in good faith shall seek to agree to the identification of each non-performed transaction to a Confirmation.

Each non-performed transaction not identified to a Confirmation by agreement, and any megawatt hours that are not fully accounted for by such identification, shall be identified to Confirmation(s) as follows:

- (i) The Performing Party in good faith shall determine whether each Confirmation is real-time, day-ahead, or forward; all Confirmations that are not real-time or day-ahead shall be deemed forward Confirmations.
- (ii) The Performing Party in good faith shall determine whether each non-performed transaction is real-time, day-ahead, or forward; all non-performed transactions that are not real-time or day-ahead shall be deemed forward non-performed transactions.

- (iii) The Performing Party shall:
  - (x) identify real-time non-performed transactions to real-time Confirmations, provided, that if the megawatt hours of real-time non-performed transactions exceed the megawatt hours of real-time Confirmations, then such excess megawatt hours shall be identified to day-ahead Confirmations and any excess megawatt hours remaining after such identification to day-ahead Confirmations shall be identified to forward Confirmations.
  - (y) identify day-ahead non-performed transactions to day-ahead Confirmations, provided, that if the megawatt hours of day-ahead non-performed transactions exceed the megawatt hours of day-ahead Confirmations, then such excess megawatt hours shall be identified to forward Confirmations.
  - (z) identify all remaining non-performed transactions to forward Confirmations.

The Performing Party, in its billing for amounts due under Section 21.3(a)(1) through (3), shall set out a detailed explanation of each applicable determination under parts (i), (ii), and (iii) of this Section 21.3(a)(5), and state the resulting Contract Quantity and Contract Price, and any amounts associated with each such determination under Section 21.3(a)(3).

- (b) The Parties agree that the amounts recoverable under this Section 21.3 are a reasonable estimate of loss and not a penalty, and represent the sole and exclusive remedy for the Performing Party. Such amounts are payable for the loss of bargain and the loss of protection against future risks.
- (c) Each Party agrees that it has a duty to mitigate damages in a commercially reasonable manner to minimize any damages it may incur as a result of the other Party's performance or non-performance of this Agreement.
- (d) In the event the Non-Performing Party disputes the calculation of the damages under this Section 21.3, the Non-Performing Party shall pay the full amount of the damages as required by Section 9 of this Agreement to the Performing Party. After informal dispute resolution as required by Section 34.1, any remaining dispute involving the calculation of the damages shall be referred to binding dispute resolution as provided by Section 34.2 of this Agreement. If resolution or agreement results in refunds or the need for refunds to the Non-Performing Party, such refunds shall be calculated in accordance with Section 9.4 of this Agreement.
- (e) In the event non-performance of a transaction is accounted for by means of a Damages Settlement Transaction and the Damages Settlement Transaction is performed, then no damages shall be calculated or due under § 21.3(a) with respect to the non-performed transaction. Neither Party shall be required to enter into a Damages Settlement Transaction.

**22. DEFAULT OF TRANSACTIONS UNDER THIS AGREEMENT AND  
CONFIRMATIONS:**

**22.1 EVENTS OF DEFAULT**

An "Event of Default" shall mean with respect to a Party ("Defaulting Party"):

- (a) the failure by the Defaulting Party to make, when due, any payment required pursuant to this Agreement or Confirmation if such failure is not remedied within two (2) Business Days after written notice of such failure is given to the Defaulting Party by the other Party ("the Non-Defaulting Party"). The Non-Defaulting Party shall provide the notice by facsimile to the designated contact person for the Defaulting Party and also shall send the notice by overnight delivery to such contact person; or
- (b) the failure by the Defaulting Party to provide clear and good title as required by Section 33.3, or to have made accurate representations and warranties as required by Section 37 and such failure is not cured within five (5) Business Days after written notice thereof to the Defaulting Party; or
- (c) The institution, with respect to the Defaulting Party, by the Defaulting Party or by another person or entity of a bankruptcy, reorganization, moratorium, liquidation or similar insolvency proceeding or other relief under any bankruptcy or insolvency law affecting creditor's rights or a petition is presented or instituted for its winding-up or liquidation; or
- (d) The failure by the Defaulting Party to provide adequate assurances of its ability to perform all of its outstanding material obligations to the Non-



Defaulting Party under the Agreement or any Confirmation pursuant to Section 27 of this Agreement or any substitute or modified provision in any Confirmation.

- (e) With respect to its Guarantor, if any:
  - (i) if a material representation or warranty made by a Guarantor in connection with this Agreement, or any transaction entered into hereunder, is false or misleading in any material respect when made or when deemed made or repeated; or
  - (ii) the failure of a Guarantor to make any payment required or to perform any other material covenant or obligation in any guarantee made in connection with this Agreement, including any transaction entered into hereunder, and such failure shall not be remedied within three (3) Business Days after written notice; or
  - (iii) the institution, with respect to the Guarantor, by the Guarantor or by another person or entity of a bankruptcy, reorganization, moratorium, liquidation or similar insolvency proceeding or other relief under any bankruptcy or insolvency law affecting creditor's rights or a petition is presented or instituted for its winding-up or liquidation; or
  - (iv) the failure, without written consent of the other Party, of a Guarantor's guarantee to be in full force and effect for purposes of this Agreement (other than in accordance with its terms) prior to

the satisfaction of all obligations of such Party under each transaction to which such guarantee shall relate; or

- (v) a Guarantor shall repudiate, disaffirm, disclaim, or reject, in whole or in part, or challenge the validity of, any guarantee.

## 22.2 REMEDIES FOR EVENTS OF DEFAULT

22.2(a) If an Event of Default shall have occurred and be continuing, the Non-Defaulting Party, upon written notice to the Defaulting Party, shall have the right (i) to suspend performance of transactions under this Agreement; provided, however, (i) in no event shall any such suspension continue for longer than ten (10) Business Days; (ii) such suspension must include all transactions under this Agreement in effect as of the date of the suspension between the Defaulting Party and the Non-Defaulting Party; and (iii) such suspension is available only once for each default. This ten (10) day suspension period shall not affect in any way the thirty (30) day period for exercising a right of termination under Section 22.2(b). The Non-Defaulting Party shall have the unilateral right to exercise its rights under this Agreement including its termination rights at any time within the suspension period. The Defaulting Party shall have no suspension rights. In no event shall the suspension continue beyond the cure of or waiver by the Non-Defaulting Party of the applicable Event of Default. If the Non-Defaulting Party seeks to terminate the suspension period such that the suspension shall be terminated prior to the end of the ten (10) Business Day period specified above, it may do so only by providing at least

twenty-four (24) hours written notice to the Defaulting Party before the suspension may be terminated.

22.2(b) If an Event of Default occurs, the Non-Defaulting Party shall possess the right to terminate all transactions between the Parties under this Agreement upon written notice (by facsimile or other reasonable means) to the Defaulting Party, such notice of termination to be effective immediately upon receipt. If the Non-Defaulting Party fails to exercise this right of termination within thirty (30) days following the time when the Event of Default becomes known (or more than thirty days if the Non-Defaulting and Defaulting Parties agree to an extension), then such right of termination shall no longer be available to the Non-Defaulting Party as a remedy for the Event(s) of Default; provided, however, this thirty day requirement for exercising termination rights shall not apply to defaults pursuant to Sections 22.1(c) and 22.1(e)(iii). The Non-Defaulting Party terminating transaction(s) under this Section 22.2 may do so without making a filing at FERC.

If the Non-Defaulting Party elects to terminate under this Section, it shall be required to terminate all transactions between the Parties under the Agreement at the same time. Upon termination, the Non-Defaulting Party shall liquidate all transactions as soon as practicable, provided that in no event will the Non-Defaulting Party be allowed to liquidate Service Schedule A transactions. The payment associated with termination ("Termination Payment") shall be calculated in accordance with this

Section 22.2 and Section 22.3. The Termination Payment shall be the sole and exclusive remedy for the Non-Defaulting Party for each terminated transaction ("Terminated Transaction") for the time period beginning at the time notice of termination under this Section 22 is received. Prior to receipt of such notice of termination by the Defaulting Party, the Non-Defaulting Party may exercise any remedies available to it under Section 21.3 of this Agreement or Confirmation(s), and any other remedies available to it at law or otherwise.

Upon termination, the Non-Defaulting Party may withhold any payments it owes the Defaulting Party for any obligations incurred prior to termination under this Agreement or Confirmation(s) until the Defaulting Party pays the Termination Payment to the Non-Defaulting Party. The Non-Defaulting Party shall possess the right to set-off the amount due it under this Section 22 by any such payments due the Defaulting Party as provided in Section 22.3(d).

### 22.3 LIQUIDATION CALCULATION OPTIONS

The Non-Defaulting Party shall calculate the Termination Payment as follows:

- (a) The Gains and Losses shall be determined by comparing the value of the remaining term, transaction quantities, and transaction prices under each Terminated Transaction had it not been terminated to the equivalent quantities and relevant market prices for the remaining term either quoted by a bona fide third-party offer or which are reasonably expected to be available in the market under a replacement contract for each Terminated

Transaction. To ascertain the market prices of a replacement contract, the Non-Defaulting Party may consider, among other valuations, quotations from Dealers in energy contracts, any or all of the settlement prices of the NYMEX power futures contracts (or NYMEX power options contracts in the case of Physically-Settled Options) and other bona fide third party offers, all adjusted for the length of the remaining term and differences in transmission. It is expressly agreed that the Non-Defaulting Party shall not be required to enter into replacement transactions in order to determine the Termination Payment.

- (b) The Gains and Losses calculated under paragraph (a) shall be discounted to present value using the Present Value Rate as of the time of termination (to take account to the period between the time notice of termination was effective and when such amount would have otherwise been due pursuant to the relevant transaction). The "Present Value Rate" shall mean the sum of 0.50% plus the yield reported on page "USD" of the Bloomberg Financial Markets Services Screen (or, if not available, any other nationally recognized trading screen reporting on-line intraday trading in United States government securities) at 11:00 a.m. (New York City, New York time) for the United States government securities having a maturity that matches the average remaining term of the Terminated Transactions; and
- (c) The Non-Defaulting Party shall set off or aggregate, as appropriate, the Gains and Losses (as calculated in Section 22.3(a)) and Costs and notify

the Defaulting Party. If the Non-Defaulting Party's aggregate Losses and Costs exceed its aggregate Gains, the Defaulting Party shall, within three (3) Business Days of receipt of such notice, pay the Termination Payment to the Non-Defaulting Party, which amount shall bear interest at the Present Value rate from the time notice of termination was received until paid. If the Non-Defaulting Party's aggregate Gains exceed its aggregate Losses and Costs, the Non-Defaulting Party, after any set-off as provided in paragraph (d), shall pay the remaining amount to the Defaulting Party within three (3) Business Days of the date notice of termination was received including interest at the Present Value from the time notice of termination was received until the Defaulting Party receives payment.

(d) The Non-Defaulting Party shall aggregate or set off, as appropriate, at its election, any or all other amounts owing between the Parties (discounted at the Present Value Rate) under this Agreement and any Confirmation against the Termination Payment so that all such amounts are aggregated and/or netted to a single liquidated amount. The net amount due from any such liquidation shall be paid within three (3) Business Days following the date notice of termination is received.

(e) (i) If the Non-Defaulting Party owes the Defaulting Party monies under this Section 22.3, then notwithstanding the three Business Day payment requirement detailed above, the Non-Defaulting Party may elect to pay the Defaulting Party the monies owed under this Section 22.3 over the remaining life of the contract(s) being

terminated. The Non-Defaulting Party may make this election by providing written notice to the Defaulting Party within three Business Days of the notice being provided to terminate and liquidate under this Section 22.3. The Non-Defaulting Party shall provide the Defaulting Party with the details on the method for recovering the monies owed over the remaining life of the contract(s). That method shall ensure that the Defaulting Party receives a payment each month through the end of the term of each contract which allows it to receive the monies which would have been due it under Sections 22.3(c) and (d) in total (to be recovered over the term of the contract(s) to replicate as closely as possible the payment streams under such contract(s)) provided that the discounting using the Present Value Rate referenced in Section 22.3 (b) shall not be reflected in determining the amounts to be recovered under this provision. Any disputes as to the methodology shall be resolved pursuant to the dispute resolution procedures in Section 34, with binding arbitration pursuant to Section 34.2 required for disputes as to the methodology if mediation is unsuccessful.

- (ii) This Section 22.3(e) and the rights and obligations under it shall survive termination of any applicable transactions or agreements.
- (iii) The Party owed monies under this Section 22.3(e) shall have the right to request credit assurances consistent with Section 27 even

after termination of any contract or transaction.

- (iv) If the Party owing money defaults on its payment obligations consistent with Section 22.1(a) or defaults with regard to providing credit assurances consistent with Section 22.1(d), then the other Party shall have the right (by written notice) at any time after the Party owing money defaults to require that Party to pay all monies owed under all of the contracts subject to this Section 22.3(e) within three Business Days of receipt of the written notice. The monies to be paid under this accelerated payment provision shall be the remaining amounts to be paid under the contract(s) reflecting a discount using the Present Value Rate from the date of the written notice.
  
- (f) If the Defaulting Party disagrees with the calculation of the Termination Payment and the Parties cannot otherwise resolve their differences, the calculation issue shall be submitted to informal dispute resolution as provided in Section 34.1 of this Agreement and thereafter binding dispute resolution pursuant to Section 34.2 if the informal dispute resolution does not succeed in resolving the dispute. Pending resolution of the dispute, the Defaulting Party shall pay the full amount of the Termination Payment calculated by the Non-Defaulting Party within three (3) Business Days (except if the option under 22.3(e) has been invoked in which case the payment times in that provision would apply) of receipt of notice as set forth in Sections 22.3(c) and (d) subject to the Non-Defaulting Party



refunding, with interest, pursuant to Section 9.4, any amounts determined to have been overpaid.

- (g) For purposes of this Section 22.3:
- (i) "Gains" means the economic benefit (exclusive of Costs), if any, resulting from the termination of the Terminated Transactions, determined in a commercially reasonable manner as calculated in accordance with this Section 22.3;
  - (ii) "Losses" means the economic loss (exclusive of Costs), if any, resulting from the termination of the Terminated Transactions, determined in a commercially reasonable manner as calculated in accordance with this Section 22.3;
  - (iii) "Costs" means brokerage fees, commissions and other similar transaction costs and expenses reasonably incurred in terminating any specifically related arrangements which replace a Terminated Transaction, transmission and ancillary service costs associated with Terminated Transactions, and reasonable attorneys' fees, if any, incurred in connection with the Non-Defaulting Party enforcing its rights with regard to the Terminated Transactions. The Non-Defaulting Party shall use reasonable efforts to mitigate or eliminate these Costs.
  - (iv) In no event, however, shall a Party's Gains, Losses or Costs include any penalties or similar charges imposed by the Non-Defaulting Party.

**22A. DEFAULT IN PAYMENT OF WSPP OPERATING COSTS:**

22A.1 A Party shall be deemed to be in default in payment of its share of WSPP operating costs pursuant to Section 7 of this Agreement, if any, when payment is not received within ten (10) days after receipt of written notice. A default by any Party in such payment obligations shall be cured by payment of all overdue amounts together with interest accrued at the rate of one percent (1%) per month, or the maximum interest rate permitted by law, if any, whichever is less, prorated by days from the due date to the date the payment curing the default is made unless and until the Executive Committee shall determine another rate.

22A.2 A defaulting Party, which is in default under Section 22.A1, shall be liable for all costs, including costs of collection and reasonable attorney fees, plus interest as provided in Section 22.A1 hereof.

22A.3 The rights under this Agreement of a Party which is in default of its obligation to pay operating costs under this Agreement for a period of three (3) months or more may be revoked by a vote of the non-defaulting Parties' representatives on the Executive Committee consistent with Section 8.3. The defaulting Party's rights shall not be revoked, however, unless said Party has received at least thirty (30) days written notice of the non-defaulting Parties' intent to revoke such rights. Said notice shall state the date on which the revocation of rights shall become effective if the default is not cured and shall state all actions which must be taken or amounts which must be paid to cure the default. This provision allowing the non-defaulting Parties to revoke such rights is in addition to any other remedies provided in this Agreement or at law and shall in no way limit the non-defaulting

Parties' ability to seek judicial enforcement of the defaulting Party's obligations to pay its share of the operating costs under this Agreement. Upon the effective date of such revocation of rights, the defaulting party shall not be allowed to enter into any new transactions under this Agreement. The defaulting party under the Agreement and Confirmation(s) shall be required to carry out all obligations that existed prior to the effective date of such revocation. If a defaulting Party's rights under this Agreement have been revoked, the Executive Committee may restore that Party's rights upon the defaulting Party paying all amounts due and owing under this Agreement.

22A.4 Upon revocation of the rights of a defaulting Party under this Agreement, costs of the WSPP hereunder shall be equally shared among the remaining Parties. Cost allocation adjustments shall be retroactive to the date of the default.

**23. OTHER AGREEMENTS:**

No provision of this Agreement shall preclude any Party from entering into other agreements or conducting transactions under existing agreements with other Parties or third parties. This Agreement shall not be deemed to modify or change any rights or obligations under any prior contracts or agreements between or among any of the Parties.

**24. GOVERNING LAW:**

This Agreement and any Confirmation shall be governed by and construed in accordance with the laws of the State of Utah, without regard to the conflicts of laws rules thereof. The foregoing notwithstanding, (1) if both the Seller and Purchaser are organized under the laws of Canada, then the laws of the province of the Seller shall govern, or (2) if the Seller or Purchaser is an agency of or part of the United States Government, then the laws of the United States of America shall govern.

**25. JUDGMENTS AND DETERMINATIONS:**

Whenever it is provided in this Agreement that a Party shall be the sole judge of whether, to what extent, or under what conditions it will provide a given service, its exercise of its judgment shall be final and not subject to challenge. Whenever it is provided that (i) a service under a given transaction may be curtailed under certain conditions or circumstances, the existence of which are determined by or in the judgment of a Party, or (ii) the existence of qualifications for membership shall be determined by the Executive Committee pursuant to Section 16, that Party's or the Executive Committee's determination or exercise of judgment shall be final and not subject to challenge if it is made in good faith and not made arbitrarily or capriciously.

**26. COMPLETE AGREEMENT:**

This Agreement and the Confirmation(s), shall constitute the full and complete agreement of the Parties with respect to a transaction, except as provided under Section 32.4.

**27. CREDITWORTHINESS:**

Should a Party's creditworthiness, financial responsibility, or performance viability become unsatisfactory to the other Party in such other Party's reasonably exercised discretion with regard to any transaction pursuant to this Agreement and any Confirmation, the dissatisfied Party (the "First Party") may require the other Party (the "Second Party") to provide, at the Second Party's option (but subject to the First Party's acceptance based upon reasonably exercised discretion), either (1) the posting of a Letter of Credit, (2) a cash prepayment, (3) the posting of other acceptable collateral or security by the Second Party, (4) a Guarantee Agreement executed by a creditworthy entity; or (5) some other mutually agreeable method of satisfying the First Party. The Second Party's obligations under this Section 27 shall be limited to a reasonable estimate of the damages to the First Party (consistent with Section 22.3 of this Agreement) if the Second Party were to fail to perform its obligations. Events which may trigger the First Party questioning the Second Party's creditworthiness, financial responsibility, or performance viability include, but are not limited to, the following:

- (1) The First Party has knowledge that the Second Party (or its Guarantor if applicable) are failing to perform or defaulting under other contracts.
- (2) The Second Party has exceeded any credit or trading limit set out in any Confirmation or other agreement between the Parties.
- (3) The Second Party or its Guarantor has debt which is rated as investment grade and that debt falls below the investment grade rating by at least one rating agency or is below investment grade and the rating of that debt is downgraded further by at least one rating agency.



- (4) Other material adverse changes in the Second Party's financial condition occur.
- (5) Substantial changes in market prices which materially and adversely impact the Second Party's ability to perform under this Agreement or any Confirmation occur.

If the Second Party fails to provide such reasonably satisfactory assurances of its ability to perform a transaction hereunder within three (3) Business Days of demand therefore, that will be considered an Event of Default under Section 22 of this Agreement and the First Party shall have the right to exercise any of the remedies provided for under that Section 22. Nothing contained in this Section 27 shall affect any credit agreement or arrangement, if any, between the Parties.

**28. NETTING:**

- 28.1 Parties shall net payments (associated with transactions under this Agreement and Confirmation(s)) in accordance with Exhibit A, if such Parties have executed the form attached as Exhibit A. The Parties' obligations to net shall include the netting of all payments received by the Parties in the same calendar month. Parties that have executed Exhibit A shall provide a signed copy of Exhibit A to a representative of the WSPP and to any Party that requests a copy and indicate on the WSPP Homepage that they have executed Exhibit A. If a Party indicated its election to net payments on the WSPP Homepage and that Party desires to withdraw its agreement to net, that Party shall provide at least 30 days notice on the WSPP Homepage of the change in its election to net and also shall provide, concurrent with its withdrawal notice, written notice to all Parties with which it has ongoing transactions or with which it has committed to future transactions under the Agreement at the time of the notice. Any such changes in netting status shall apply beginning at least 30 days after notice required by this Section 28.2 is provided and only shall apply to transactions agreed to beginning on or after the date the change in netting status becomes effective.
- 28.2 The Parties may by separate agreement either through a Confirmation or some other agreement set out specific terms relating to the implementation of the netting in addition to or in lieu of Exhibit A.
- 28.3 Each Party reserves to itself all rights, set offs, counterclaims, and other remedies and defenses (to the extent not expressly herein waived or denied) which such

Party has or may be entitled to arising from or out of this Agreement and any applicable Confirmation.

**29. TAXES:**

The Contract Price for all transactions under this Agreement shall include full reimbursement for, and the Seller is liable for and shall pay, or cause to be paid, or reimburse the Purchaser for if the Purchaser has paid, all taxes applicable to a transaction that arise prior to the delivery point. If the Purchaser is required to remit such tax, the amount shall be deducted from any sums due to the Seller. The Seller shall indemnify, defend, and hold harmless the Purchaser from any claims for such taxes. The Contract Price does not include reimbursement for, and the Purchaser is liable for and shall pay, cause to be paid, or reimburse the Seller for if the Seller has paid, all taxes applicable to a transaction arising at and from the delivery point, including any taxes imposed or collected by a taxing authority with jurisdiction over the Purchaser. The Purchaser shall indemnify, defend, and hold harmless the Seller from any claims for such taxes. Either Party, upon written request of the other Party, shall provide a certificate of exemption or other reasonably satisfactory evidence of exemption if either Party is exempt from taxes, and shall use reasonable efforts to obtain and cooperate with the other Party in obtaining any exemption from or reduction of any tax. Taxes are any amounts imposed by a taxing authority associated with the transaction.

**30. CONFIDENTIALITY:**

30.1 The terms of any transaction under this Agreement or any other information exchanged by the Purchaser and Seller relating to the transaction shall not be disclosed to any person not employed or retained by the Purchaser or the Seller or their affiliates, except to the extent disclosure is (1) required by law, (2) reasonably deemed by the disclosing Party to be required to be disclosed in connection with a dispute between or among the Parties, or the defense of any litigation or dispute, (3) otherwise permitted by consent of the other Party, which consent shall not be unreasonably withheld, (4) required to be made in connection with regulatory proceedings (including proceedings relating to FERC, the United States Securities and Exchange Commission or any other federal, state or provincial regulatory agency); (5) required to comply with North American Electric Reliability Organization, regional reliability council, or successor organization requirements; (6) necessary to obtain transmission service; or (7) to a developer of an index of electric power prices in accordance with Section 30.2. In the event disclosure is made pursuant to this provision, the Parties shall use reasonable efforts to minimize the scope of any disclosure and have the recipients maintain the confidentiality of any documents or confidential information covered by this provision, including, if appropriate, seeking a protective order or similar mechanism in connection with any disclosure. This provision shall not apply to any information that was or is hereafter in the public domain (except as a result of a breach of this provision).

30.2 A Party may disclose the terms of transactions under this Agreement, excluding the identities of parties, to any developer of any index of electric power prices without violation of the confidentiality obligations under Section 30.1 if: (1) the disclosing Party and the index developer have entered into a written agreement, prior to the disclosure, under which the developer has agreed to use the information solely for the development of an index of electric power prices for publication and not for any other purpose; and (2) the index with respect to which disclosure is made is an aggregation of terms of transactions and does not identify terms of single transactions or the identities of parties to transactions.

**31. TRANSMISSION TARIFF:**

Pursuant to FERC Order No. 888, issued on April 24, 1996, and FERC orders where applicable, the WSPP Default Transmission Tariff has been filed and has become effective. The Parties agree to be bound by the terms of that Tariff for so long as they are WSPP members.

## **32. TRANSACTION SPECIFIC TERMS AND ORAL AGREEMENTS:**

### 32.1 General

32.1.1 A Confirmation shall include, at a minimum, the Standard Confirmation Provisions. (See Exhibit C for a sample). Subject to the limitations in Section 32.2 (Standard Confirmation Provisions) and Section 32.3 (Non-Standard Confirmation Provisions), the Confirmation shall be made in writing by a Documentary Writing or an Electronic Writing, or shall be an Electronic Platform Confirmation.

32.1.2 Pursuant to the provisions of this Section 32, the Parties to a transaction under this Agreement may agree to modify any term of this Agreement (other than provisions regarding the operation of the WSPP as an organization including Sections 7 and 8) which applies to such transaction, such agreement to be stated in a Confirmation or Confirmations.

32.1.3 Sections 32.2 and 32.3 shall not apply to an Electronic Platform Confirmation. Parties may amend an Electronic Platform Confirmation in accordance with the procedures, if any, of the applicable platform or exchange or in any other manner this Agreement permits. Each Electronic Platform Confirmation between WSPP members shall be subject to this Agreement, unless the transaction specified in the Electronic Platform Confirmation is subject to another agreement between the Parties other than a master Confirmation applicable to the Parties' WSPP Confirmations.

32.2 Process For Confirming Standard Confirmation Provisions.



32.2.1 Confirmation of Standard Confirmation Provisions For Transactions of Less Than One Week in Duration.

Confirmation for Standard Confirmation Provisions applicable to transactions of less than one week in duration may be through:

- (i) a Documentary Writing (including a Confirmation which is not executed by both Parties but which is binding under Section 32.2.3) or
- (ii) an Electronic Writing.

Notwithstanding the foregoing sentence, with respect to a transaction of less than one week in duration as agreed in an Electronic Writing and that is to commence within one week of that agreement, a subsequent proposed confirming Documentary Writing under Section 32.2.3 shall not vary the terms of the Electronic Writing unless the Documentary Writing is executed by both Parties.

32.2.2 Standard Confirmation Provisions For Transactions of One Week or More in Duration.

Written confirmation shall be required for all Standard Confirmation Provisions for transactions of one week or more in duration. Such written confirmation may be made by a Documentary Writing executed by both Parties or a Documentary Writing not executed by both Parties but which is binding under Section 32.2.3.

32.2.3 Written Confirmation Process for Standard Confirmation Provisions.

The Seller shall provide a proposed Documentary Writing containing the proposed Standard Confirmation Provisions which must be received by the Purchaser within five Business Days of the date of the agreement to the transaction. The Purchaser shall have five Business Days from date of receipt to accept or propose modifications to the proposed Documentary Writing. If the Purchaser does not respond within that time period, the Seller's proposed Documentary Writing shall be considered as accepted and shall be the final Confirmation. If the Seller fails to provide a proposed Documentary Writing within the five Business Days period, then, within the immediately subsequent five Business Days, the Purchaser may submit a proposed Documentary Writing to the Seller. The Seller shall then have five Business Days from date of receipt to accept or propose modifications to the proposed Documentary Writing. If the Seller does not respond within that time period, the Purchaser's proposed Documentary Writing shall be considered as accepted and shall be the final Confirmation.

### 32.3 Process for Confirming Non-Standard Confirmation Provisions.

32.3.1 Non-Standard Confirmation Provisions for Transactions of Less Than One Week in Duration. Confirmation for Non-Standard Confirmation Provisions for a transaction of less than one week in duration only may be through: (i) an Electronic Writing; or (ii) in a Documentary Writing executed by both Parties.

32.3.2 Non-Standard Confirmation Provisions for Transactions of One Week or More in Duration. Confirmation for Non-Standard Confirmation Provisions for transactions of one week or more only shall be through a Documentary Writing executed by both Parties.

32.3.3 WSPP Agreement is a Default Agreement.

If the Parties to a transaction (i) do not reach agreement on any proposed Non-Standard Confirmation Provision and (ii) do not confirm it under Section 32.3.1 or 32.3.2, as applicable, then the term or terms of the Agreement, which the Parties could not reach agreement to modify or change or which are not considered modified pursuant to this Section 32.3, shall apply to the transaction.

32.4 Prior Discussions And Statements

32.4.1 A Confirmation under Section 32.2 and/or 32.3, shall, together with this Agreement, be an integrated contract with respect to the transaction, shall supersede all discussions and negotiations with respect thereto, and are intended by the Parties as a final expression of their agreement with respect to such terms as are included therein and may not be contradicted by evidence of any prior agreement unless there is clear and convincing evidence of a mutual mistake in the Confirmation.

32.4.2 Notwithstanding any provision in this Agreement (including Sections 32.3.2 and 32.4.1), until the Confirmation has become final in accordance with Sections 32.2 and/or 32.3 for a transaction, any oral agreement or

electronic communication establishing agreement of the Parties relating to such transaction shall remain valid and binding.

- 32.5 The Parties agree not to contest, or assert any defense with respect to, the validity or enforceability of any agreement to the terms concerning a specific transaction, on the basis that documentation of such terms fails to comply with the requirements of any statute that agreements be written or signed. Each Party consents to the recording by the other Party, without any further notice, of telephone conversations between representatives of the Parties, which contain agreements to or discussion concerning the terms of a specific transaction. All such recordings may be introduced and admitted into evidence for the purpose of proving agreements to terms, and any objection to such introduction or admission for such purpose is hereby expressly waived.
- 32.6 In the event of a conflict between a binding and effective Confirmation and this Agreement, the Confirmation shall govern.
- 32.7 The Seller shall not be required to file any Confirmation with FERC except as provided in the Service Schedules.
- 32.8 Other Products and Service Levels: The Parties may apply this Agreement and make a Confirmation with respect to a product/service level defined under any other document or form of agreement (e.g., the California ISO tariff, the ERCOT agreement or the EEI agreement). The confirmation process set forth in Section 32.3 shall apply to any such Confirmation. Unless the Parties expressly state and agree that all the terms and conditions of such other agreement will apply to any such transaction consistent with Section 32.3, the transaction shall be subject to

all the terms of this Agreement, except that (1) all service level/product definitions, (2) force majeure/uncontrollable force definitions, and (3) other terms as mutually agreed shall have the meaning ascribed to them in the different agreement or in the applicable Confirmation.

32.9 Reserved.

32.10 The Parties may agree to modify terms of this Agreement for more than one transaction pursuant to a separate written agreement (a “master confirmation agreement”), which agreement shall be considered part of each Confirmation between the Parties and shall apply to all transactions entered into between the two Parties unless the Parties specifically agree to override such changes for a particular transaction consistent with the procedure in Section 32.2 or 32.3, whichever is applicable.

**33. PERFORMANCE, TITLE, AND WARRANTIES FOR TRANSACTIONS UNDER SERVICE SCHEDULES:**

33.1 Performance

33.1.1 The Seller shall deliver to the delivery point(s) as agreed to in the applicable Confirmation and sell to the Purchaser in accordance with the terms of the Agreement and such Confirmation.

33.1.2 The Purchaser shall receive and purchase the Contract Quantity, as agreed to by the Parties in the applicable Confirmation, at the delivery point(s) and purchase from the Seller in accordance with the terms of the Agreement and such Confirmation.

33.2 Title and Risk of Loss

Title to and risk of loss of the electric energy shall pass from the Seller to the Purchaser at the delivery point agreed to in the Confirmation; provided, however, with regard to federal agencies or parts of the United States Government, title to and risk of loss shall pass to Purchaser to the extent permitted by and consistent with applicable law.

33.3 Warranties

The Seller warrants that it will transfer to the Purchaser good title to the electric energy sold under the Agreement and any Confirmation, free and clear of all liens, claims, and encumbrances arising or attaching prior to the delivery point and that Seller's sale is in compliance with all applicable laws and regulations.

**THE SELLER HEREBY DISCLAIMS ALL OTHER WARRANTIES,**

**EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF  
MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.**

## **34. DISPUTE RESOLUTION:**

### **34.1 INFORMAL DISPUTE RESOLUTION**

Before binding dispute resolution or any other form of litigation may proceed, any dispute between the Parties to a transaction under this Agreement first shall be referred to nonbinding mediation except for actions taken pursuant to Section 21.2. The Parties shall attempt to agree upon a mediator from a list of ten (10) candidates provided by the Chairman of the WSPP Operating Committee or his or her designee. If the Parties are unable to agree, then the Chairman or the designee shall appoint a mediator for the dispute. Neither the mediator nor the person involved on behalf of the WSPP in developing a list of mediators for the Parties to choose from or in selecting the mediator (if the Parties are unable to do so) shall possess a direct or indirect interest in either Party or the subject matter of the mediation. The WSPP shall establish procedures for the appointment of mediators and the conduct of mediation and those procedures shall apply to the mediation.

### **34.2 BINDING DISPUTE RESOLUTION**

The Parties to a dispute may elect binding dispute resolution using the following process unless binding arbitration of certain disputes is required under this Agreement in which event the Parties shall use the process set forth in this Section 34.2 to resolve such disputes, unless the Parties otherwise agree:

- (a) **WSPP Dispute Resolution:** A Party to a dispute (if binding dispute resolution is required) or all Parties to a dispute (if agreement of the Parties is required for binding dispute resolution) may initiate binding



dispute resolution under WSPP procedures by notifying the Chairman of the WSPP Operating Committee or his or her designee. The Chairman or his or her designee shall provide the Parties with a list of ten (10) eligible arbitrators. Within ten (10) days of receiving the list, the Parties shall agree on a single arbitrator from the list to conduct the arbitration, or notify the Chairman of the Operating Committee or the designee of their inability to reach agreement. If notified of the Parties inability to reach agreement, then the Chairman or the designee shall choose the arbitrator from the list within five (5) days. Neither the arbitrator nor the person involved on behalf of the WSPP in developing a list of arbitrators for the Parties to choose from or in selecting the arbitrator (if the Parties are unable to do so) shall possess a direct or indirect interest in either Party or the subject matter of the arbitration. The Procedures to be used for this arbitration shall follow the arbitration procedures which shall be developed and maintained by the WSPP and the procedures will be generally consistent with the commercial arbitration rules of the American Arbitration Association though not involving the Association.

If the Parties agree to binding dispute resolution under this Section 34.2, each Party understands that it will not be able to bring a lawsuit concerning any dispute that may arise which is covered by this arbitration provision. Notwithstanding the foregoing, nothing herein is intended to waive any provision of the Federal Arbitration Act, 9 U.S.C. § 1, et. seq., or any right under state

statute or common law to challenge an arbitration award or to prevent any action to enforce any arbitration award.

A Party's liability and damages under any arbitration award resulting from the process set forth in this Section 34.2 shall be limited as provided in this Agreement or in any Confirmation.

#### 34.3 COSTS

Each Party shall be responsible for its own costs and those of its counsel and representatives. The Parties shall equally divide the costs of the arbitrator or mediator and the hearing.

#### 34.4 CONFIDENTIALITY

Any arbitration or mediation under this Section 34 shall be conducted on a confidential basis and not disclosed, including any documents or results which shall be considered confidential, unless the Parties otherwise agree or such disclosure is required by law.

**35. FORWARD CONTRACTS:**

The Parties acknowledge and agree that all transactions under the Agreement and Confirmation(s) are forward contracts and that the Parties are forward contract merchants, as those terms are used in the United States Bankruptcy Code. The Parties acknowledge and agree that all of their transactions, together with this Agreement and the related Confirmation(s) form a single, integrated agreement, and agreements and transactions are entered into in reliance on the fact that the agreements and each transaction form a single agreement between the Parties.

**36. TRADE OPTION EXEMPTION**

The Parties intend that any Physically Settled Option under this Agreement shall qualify under the trade option exemption, 17 C.F.R. § 32.3. Accordingly, each Party buying or selling a Physically Settled Option agrees and warrants that any such option shall be offered only to a provider, user, or merchant and that the entities entering into the options are doing so solely for purposes related to their business.

**37. ADDITIONAL REPRESENTATIONS AND WARRANTIES:**

Each Party warrants and represents to the other(s) that it possesses the necessary corporate, governmental and legal authority, right and power to enter into and agree to the applicable Confirmation for a transaction or transactions and to perform each and every duty imposed, and that the Parties' agreement to buy and sell power under this Agreement and the Confirmation represents a contract. Each Party also warrants and represents to the other(s) that each of its representatives executing or agreeing through a Confirmation to a transaction under this Agreement is authorized to act on its behalf.

Each Party further warrants and represents that entering into this Agreement and any applicable Confirmation does not violate or conflict with its Charter, By-laws or comparable constituent document, any law applicable to it, any order or judgment of any court or other agency of government applicable to it or any agreement to which it is a party and that this Agreement and applicable Confirmation, constitute a legal, valid and binding obligation enforceable against such Party in accordance with the terms of such agreements.

Each Party also represents that it is solvent and that on each delivery this representation shall be deemed renewed unless notice to the contrary is given in writing by the Purchaser to the Seller before delivery.

**38. FLOATING PRICES:**

38.1 In the event the Parties intend that the price for a transaction is to be based on an index, exchange or any other kind of variable reference price (such price being a “Floating Price”), the Parties shall specify the “Floating Price” to be used to calculate the amounts in a Confirmation due Seller for that transaction.

38.2 Market Disruption. If a Market Disruption Event has occurred and is continuing during the Determination Period, the Floating Price for the affected Trading Day shall be determined as follows. The Parties shall negotiate in good faith to agree on a Floating Price (or a method for determining a Floating Price) for the affected Trading Day. If the Parties have not so agreed on or before the twelfth Business Day following the first Trading Day on which the Market Disruption Event occurred or existed, then the Floating Price shall be determined in good faith by the Parties based upon (1) quotes from Dealers in energy contracts; and/or (2) quotes from Brokers in energy contracts. Each Party may obtain up to a maximum of four quotes which must be provided to the other Party no later than twenty-two Business Days following the first Business Day on which the Market Disruption Event occurred or existed. These quotes shall reflect transacted prices. The Floating Price for the affected Trading Day shall equal a simple average of the quotes obtained and provided by the Parties consistent with the provisions of this Section 38. Each Party providing quote(s) to the other Party also shall identify to that other Party the Dealer(s) and/or the Broker(s) who provided each of the quotes to allow verification.

“Determination Period” means each calendar month during the term of the relevant transaction; provided that if the term of the transaction is less than one calendar month the Determination Period shall be the term of the transaction.

“Market Disruption Event” means, with respect to an index, any of the following events (the existence of which shall be determined in good faith by the Parties): (a) the failure of the index to announce or publish information necessary for determining the Floating Price; (b) the failure of trading to commence or the permanent discontinuation or material suspension of trading in the relevant options contract or commodity on the exchange or market acting as the index; (c) the temporary or permanent discontinuance or unavailability of the index; (d) the temporary or permanent closing of any exchange acting as the index; or (e) a material change in the formula for or the method of determining the Floating Price.

“Trading Day” means a day in respect of which the relevant price source published the relevant price or would have published the relevant price but for the Market Disruption Event.

38.3 Calculation of Floating Price. For the purposes of the calculation of a Floating Price, all numbers shall be rounded to three (3) decimal places. If the fourth (4th) decimal number is five (5) or greater, then the third (3rd) decimal number shall be increased by one (1), and if the fourth (4th) decimal number is less than five (5), then the third (3rd) decimal number shall remain unchanged.

38.4 Corrections. For the purposes of determining the relevant prices for any day, if the price published or announced on a given day and used or to be used to

determine the relevant price is subsequently corrected and the correction is published or announced by the person responsible for that publication or announcement, either Party may notify the other Party of (i) that correction and (ii) the amount (if any) that is payable as a result of that correction. If a Party gives notice that an amount is so payable, the Party that originally either received or retained such amount will pay such amount consistent with the provisions of this Section 38.4. The amount that is payable as a result of the correction shall be included in the billing cycle in which the notice of the correction is provided.



**39. AMENDMENT:**

- 39.1 This Agreement may be amended upon the submission to FERC and acceptance by FERC of that amendment. The effective date of the amendment shall be the date on which FERC allows the amendment to become effective; provided, however, if the FERC orders a hearing on a filing under Section 205 of the Federal Power Act proposing an amendment to this Agreement, the amendment as it may be revised by the FERC shall not become effective until the FERC issues its final order (i.e. its order on rehearing before any judicial review) on the amendment. The Parties through the Executive Committee shall direct the filing of any amendments. The Parties to this Agreement agree to bound by this Agreement as it may be amended, provided that the Parties possess the right to challenge any amendments at FERC and to exercise any applicable withdrawal rights under this Agreement.
- 39.2 Unless otherwise stated in the amendment, all amendments shall apply only to new transactions entered into or agreed to on or after the effective date of the amendment. Preexisting agreements and transactions shall operate under the version of the WSPP Agreement effective at the time of the agreement for the transaction unless the Parties to a transaction or transactions mutually agree otherwise.
- 39.3 An agreement modifying this Agreement or a Confirmation for a transaction needs no consideration to be binding.

**40. EXECUTION BY COUNTERPARTS:**

This Agreement may be executed in any number of counterparts, and upon execution by all Parties, each executed counterpart shall have the same force and effect as an original instrument and as if all Parties had signed the same instrument. Any signature page of this Agreement may be detached from any counterpart of this Agreement without impairing the legal effect of any signatures thereon, and may be attached to another counterpart of this Agreement identical in form hereto but having attached to it one or more signature pages.

**41. WITNESS:**

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their duly authorized representative as of the 27th day of July, 1991 (or as of the date of execution of this Agreement by each Party's duly authorized representation, in the case of any Party that becomes a signatory to this Agreement subsequent to July 27, 1991).

By: \_\_\_\_\_  
Name of signing official:  
Title:  
Name of Member:  
Date:

**EXHIBIT A**

**NETTING**

Each Party that executes this Exhibit A to the Agreement agrees to net payments for transactions under the WSPP Agreement and the applicable Confirmation(s) with any other Party or Parties which also have agreed to net payments by executing a copy of this Exhibit A. The Party executing this Exhibit A shall indicate below when it desires that its agreement to net becomes effective. A Party agreeing to net under this Exhibit A shall comply with the provisions of Section 28.2 of the Agreement. Defined terms used herein are as defined in the WSPP Agreement. Netting shall be done in accordance with the following provision:

If the Purchaser and Seller are each required to pay an amount on the payment due date in the same month for transactions under the Agreement and Confirmation(s), then such amounts with respect to each Party will be aggregated and the Parties will discharge their obligations to pay through netting, in which case the Party owing the greater aggregate amount will pay to the other party the difference between the amounts owed consistent with the payment times in Section 9.2 of the Agreement, unless the Parties have otherwise agreed to a different payment time as allowed by the Agreement. Each Party reserves to itself all rights, set-offs, counterclaims and other remedies and/or defenses to which it is or may be entitled, arising from or out of the Agreement. All outstanding payments between the Parties which are to be netted pursuant to this Exhibit A for transactions under WSPP Agreement and the applicable Confirmation(s) shall be offset against each other or set off or recouped therefrom.

\_\_\_\_\_  
Name of Authorized Representative

\_\_\_\_\_  
Effective Date for Netting

\_\_\_\_\_  
Name of WSPP Member

\_\_\_\_\_  
Signature of Authorized  
Representative

\_\_\_\_\_  
Date of Execution

[WSPP SAMPLE FORM – PARTIES ARE FREE TO USE THIS OR DISREGARD IT.]

**EXHIBIT B**

**FORM OF COUNTERPARTY GUARANTEE AGREEMENT**

This Guarantee Agreement (this “Guarantee”), dated, as of [\_\_\_\_\_], 199[\_\_\_], is made and entered into by [\_\_\_\_\_], a [\_\_\_\_\_] corporation (“Guarantor”).

**WITNESSETH:**

WHEREAS, [\_\_\_\_\_] (the “Company”) may enter into transactions involving power sales under the WSPP Agreement (“WSPP Agreement”) and related Confirmation(s)<sup>1</sup> (collectively “Agreements”) with [Company Name] (“Guaranteed Party”); and

WHEREAS, Guarantor will directly or indirectly benefit from the Agreements.

NOW THEREFORE, in consideration of the Guaranteed Party agreeing to conduct business with Company, Guarantor hereby covenants and agrees as follows:

1. GUARANTY. Subject to the provisions hereof, Guarantor hereby irrevocably and unconditionally guarantees the timely payment when due of the obligations of Company (the “Obligations”) to the Guaranteed Party in accordance with the Agreements. If Company fails to pay any Obligations, Guarantor shall promptly pay to the Guaranteed Party no later than the next Business Day (as defined in the WSPP Agreement), after notification, the amount due in the same currency and manner provided for in the Agreements. This Guarantee shall constitute a guarantee of payment and not of collection. Guarantor shall have no right of subrogation with respect to any payments it makes under this Guarantee until all of the Obligations of Company to the Guaranteed Party are paid in full. The liability of Guarantor under the Guarantee shall be subject to the following:

(a) Guarantor’s liability hereunder shall be and is specifically limited to payments expressly required to be made in accordance with the Agreements (even if such payments are deemed to be damages) and, except to the extent specifically provided in the Agreements, in no event shall Guarantor be subject hereunder to consequential, exemplary, equitable, loss of profits, punitive, tort, or any other even if such fees together with the payments exceed the cap in Section 1(b), damages, costs, except that Guarantor shall be required to pay reasonable attorney fees.

(b) The aggregate liability of the Guarantor shall not exceed [\_\_\_\_\_] Million U.S. Dollars [\_\_\_\_\_].

2. DEMANDS AND NOTICE. If Company fails or refuses to pay any Obligations, the Guaranteed Party may make a demand upon Guarantor (hereinafter referred to as a “Payment

Demand”). A Payment Demand shall be in writing and shall reasonably and briefly specify in what manner and what amount Company has failed to pay and an explanation of why such payment is due, with a specific statement that the Guaranteed Party is calling upon Guarantor to pay under this Guarantee. A Payment Demand satisfying the foregoing requirements shall be deemed sufficient notice to Guarantor that it must pay the Obligations. A single written Payment Demand shall be effective as to any specific default during the continuance of such default, until Company or Guarantor has cured such default, and additional Payment Demands concerning such default shall not be required until such default is cured.

3. REPRESENTATIONS AND WARRANTIES. Guarantor represents and warrants that:

(a) it is a corporation duly organized and validly existing under the laws of the State of [\_\_\_\_\_] and has the corporate power and authority to execute, deliver and carry out the terms and provisions of this Guarantee;

(b) no authorization, approval, consent or order of, or registration or filing with, any court or other governmental body having jurisdiction over Guarantor is required on the part of Guarantor for the execution and delivery of this Guarantee; and

(c) this Guarantee constitutes a valid and legally binding agreement of Guarantor enforceable against Guarantor in accordance with its terms, except as the enforceability of this Guarantee may be limited by the effect of any applicable bankruptcy, insolvency, reorganization, moratorium or similar laws affecting creditors’ rights generally and by general principles of equity.

4. EFFECT OF BANKRUPTCY BY COMPANY. The Guarantor’s obligation to pay under this Guarantee shall not be affected in any way by the institution with respect to the Company of a bankruptcy, reorganization, moratorium or similar insolvency proceeding or other relief under any bankruptcy or insolvency law affecting creditor’s rights or a petition for the Company’s winding-up or liquidation.

5. AMENDMENT. No term or provision of this Guarantee shall be amended, modified, altered, waived, or supplemented except in a writing signed by the Guarantor and Guaranteed Party hereto.

6. WAIVERS. Guarantor hereby waives (a) notice of acceptance of this Guarantee; (b) presentment and demand concerning the liabilities of Guarantor, except as expressly hereinabove set forth; and (c) any right to require that any action or proceeding be brought against Company or any other person, or except as expressly hereinabove set forth, to require that the Guaranteed Party seek enforcement of any performance against Company or any other person, prior to any action against Guarantor under the terms hereof.

Except as to applicable statutes of limitation, no delay of the Guaranteed Party in the exercise of, or failure to exercise, any rights hereunder shall operate as a waiver of such rights, a waiver of any other rights or a release of Guarantor from any obligations hereunder.

Guarantor consents to the renewal, compromise, extension, acceleration or other changes in the time of payment of or other changes in the terms of the Obligations, or any part thereof or any changes or modifications to the terms of the Agreements.

Guarantor may terminate this Guarantee by providing written notice of such termination to the Guaranteed Party and upon the effectiveness of such termination, Guarantor shall have no further liability hereunder, except as provided in the last sentence of this paragraph. No such termination shall be effective until fifteen (15) Business Days after receipt by the Guaranteed Party of such termination notice. No such termination shall affect Guarantor's liability with respect to any obligations arising under any transaction entered into prior to the time the termination is effective, which transaction shall remain guaranteed pursuant to the terms of this Guarantee.

7. ASSIGNMENT. The Guarantor shall not assign this Guarantee without the express written consent of the Guaranteed Party. The Guaranteed Party shall be entitled to assign its rights under this Agreement in its sole discretion.

8. NOTICE. Any Payment Demand, to the Guaranteed Party or the Guarantor notice, request, instruction, correspondence or other document to be given hereunder by any party to another (herein collectively called "Notice") shall be in writing and delivered personally or mailed by certified mail, postage prepaid and return receipt requested, or by telegram or telecopier, as follows:

To [Name of Guaranteed Party] \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
Attn: \_\_\_\_\_  
Fax No.: (\_\_\_\_) \_\_\_\_\_

To Guarantor: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
Attn: \_\_\_\_\_  
Fax No.: (\_\_\_\_) \_\_\_\_\_

Notice given by personal delivery or mail shall be effective upon actual receipt. Notice given by telegram or telecopier shall be effective upon actual receipt if received during the recipient's normal business hours, or at the beginning of the recipient's next business day after receipt if not received during the recipient's normal business hours. All Notices by telegram or telecopier shall be confirmed promptly after transmission in writing by certified mail or personal delivery. Any party may change any address to which Notice is to be given to it by giving notice as provided above of such change of address.

8. MISCELLANEOUS. THIS GUARANTEE SHALL IN ALL RESPECTS BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF [State], WITHOUT REGARD TO PRINCIPLES OF CONFLICTS OF LAWS. This Guarantee shall be binding upon Guarantor, its successors and assigns and inure to the benefit of and be enforceable by the Guaranteed Party, its successors and assigns. The Guarantee embodies the entire agreement and understanding between Guarantor and the Guaranteed Party and supersedes all prior agreements and understandings relating to the subject matter hereof. The headings in this Guarantee are for purposes of reference only, and shall not affect the meaning hereof. This Guarantee may be executed in any number of counterparts, each of which shall be an original, but all of which together shall constitute one instrument.

EXECUTED as of the day and year first above written.

[ \_\_\_\_\_ ]  
By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_



**EXHIBIT C**  
**SAMPLE FORM FOR CONFIRMATION**

**1. Transaction Specific Agreements**

The undersigned Parties agree to sell and purchase electric energy, or a Physically-Settled Option, pursuant to the WSPP Agreement as it is supplemented and modified below:

- (a) Seller: \_\_\_\_\_
- (b) Purchaser: \_\_\_\_\_
- (c) Period of Delivery: From \_\_\\_\_\\_\_ To \_\_\\_\_\\_\_
- (d) Schedule (Days and Hours): \_\_\_\_\_
- (e) Delivery Rate: \_\_\_\_\_
- (f) Delivery Point(s): \_\_\_\_\_
- (g) Type of Service (Check as Applicable)
  - Service Schedule A \_\_\_\_\_
  - Service Schedule B \_\_\_\_\_
  - Service Schedule C \_\_\_\_\_
  - Physically-Settled Option Service Schedule B \_\_\_\_\_
  - Physically-Settled Option Service Schedule C \_\_\_\_\_
  - Other products per Section 32.6 \_\_\_\_\_ **[Describe Product]**
- (h) Contract Quantity: \_\_\_\_\_ Total MWhrs.
- (i) Contract or Strike Price: \_\_\_\_\_
- (j) Transmission Path for the Transaction (If Applicable): \_\_\_\_\_
- (k) Date of Agreement if different: \_\_\_\_\_
- (l) Additional Information for Physically-Settled Options
  - (i) Option Type: *Put* \_\_\_\_\_ *Call* \_\_\_\_\_
  - (ii) Option Style: \_\_\_\_\_
  - (iii) Exercise Date or Period: \_\_\_\_\_
  - (iv) Premium: \_\_\_\_\_
  - (v) Premium Payment Date: \_\_\_\_\_
  - (vi) Method for providing notice of exercise \_\_\_\_\_
- (m) Special Terms and Exceptions:  
See Attachment A

[Special Terms and Exceptions shall be shown on an Attachment to this Confirmation.]

\_\_\_\_\_  
Name of Trader for Purchaser

\_\_\_\_\_  
Name of Trader for Seller

\_\_\_\_\_  
Authorized Signature  
for Purchaser

\_\_\_\_\_  
Authorized Signature  
for Seller

---

Date

---

Date

## EXHIBIT D

### WSPP MEDIATION AND ARBITRATION PROCEDURES

#### I. MEDIATION

- A. **Informal Mediation.** WSPP members with a dispute or a potential dispute involving transactions under the WSPP Agreement may request non-binding, informal mediation by contacting the WSPP's General Counsel and by providing a brief explanation in writing of the dispute and the remedy being sought. All parties to the dispute must request this Informal Mediation for it to become effective. After this contact, a telephonic conference call will be arranged among the affected WSPP members and the WSPP's General Counsel, the Chairman of the Operating Committee, and/or some other independent and knowledgeable person requested by the Chairman of the Operating Committee to participate. The purpose of the conference call will be to discuss the issues and to have an independent person or persons state their views. Best efforts will be made to set up this conference call within five Business Days after the WSPP's General Counsel is contacted subject to accommodating the schedules of all involved. This Informal Mediation shall be considered as satisfying the Mediation requirements of Section 34.1 of the WSPP Agreement.
- B. **Initiating Formal Mediation.** A WSPP member which believes that it possesses a claim against another WSPP member relating to a WSPP transaction, which is unable to resolve the dispute through agreement with the other member to the transaction, and which desires to pursue that claim shall initiate non-binding formal mediation pursuant to Section 34.1 of the WSPP Agreement. The member

initiating such mediation shall do so by Serving written notice to the Chairman of the WSPP Operating Committee, the WSPP's General Counsel, and the other members against which the claim is directed. Such notice shall state the nature of the dispute, the remedy sought, and support the claim.

- C. **Response to Document Initiating Formal Mediation.** Within eight days, the member or members against which the claim is directed may provide a response to the notice which shall be Served on the member which initiated the Mediation, the Chairman of the WSPP's Operating Committee, and the WSPP's General Counsel.
- D. **Choosing the Mediator.** The Mediator shall be chosen in accordance with the procedures set forth in Section 34.1 of the WSPP Agreement. Each Party may suggest persons to be included on the list of Mediators to be presented to the Parties provided that these suggested persons shall be provided to the WSPP Representative together with relevant personal histories within two Business Days of the date by which time the list of Mediators is to be sent out. The WSPP Representative shall allow at least one person suggested by each Party to be added to the list of Mediators. A brief personal history of each person on the list of potential mediators shall be provided to the Parties, with that history showing the person's employment over the last five years and any other relevant facts. The WSPP Representative shall provide the Parties with the list of Mediators within five days of receipt of notice of the dispute. The Parties then shall have five days in which to reach agreement on a Mediator or inform the WSPP Representative that they were unable to reach agreement in which event the WSPP

Representative shall appoint the Mediator consistent with Section 34.1 of the WSPP Agreement. Upon request of the Parties for expedition, the WSPP Representative shall use best efforts to expedite this process.

- E. **Location for the Formal Mediation.** The Parties shall agree on a location for the Mediation. If the Parties fail to reach agreement, then the WSPP Representative shall set the location which shall be convenient for the Parties and the Mediator.
- F. **Time for the Formal Mediation.** The Parties shall agree on the time for the Mediation after consultation with the Mediator if one has been appointed. If the Parties fail to reach agreement, then the WSPP Representative shall set the time which shall not be more than twenty-one days after the notice initiating the Mediation is received after consultation with the Parties and any Mediator.
- G. **Conduct of the Formal Mediation.** The Mediator shall have the ability to conduct the Mediation in any manner which the Mediator believes is appropriate to facilitate resolution of the dispute. Each Party shall have at least one representative with the authority to settle the dispute present at the Mediation. The Mediation shall be private and confidential and the Mediator shall have the authority to exclude any person not directly involved unless the Parties agree otherwise in writing. At the Mediation, each Party shall have the right to make a brief presentation of its case and to question the other Party. Each Party also may be represented by counsel.
- H. **Replacement of the Mediator.** If the Mediator resigns, withdraws or is no longer able to serve, then the Parties shall have two Business Days in which to

agree on a new Mediator. If the Parties are unable to agree within such time, the WSPP Representative shall appoint a replacement Mediator from the list used to select the first Mediator within two Business Days after being notified that the Parties are unable to agree. The dates and deadlines in this section may require modification if the mediator is replaced. Any extensions shall be as limited as possible.

## **II. ARBITRATION**

- A. **Initiating Arbitration.** A WSPP member which initiates Arbitration pursuant to Section 34.2 of the WSPP Agreement shall do so by Serving the Chairman of the WSPP Operating Committee, the WSPP General Counsel and the members against which the claim is directed with written notice of its demand for arbitration. Such notice shall state the nature of the dispute, the remedy sought, and support the claim.
- B. **Response.** Within ten days of receipt of the notice, any member or members against which the claim is directed may provide a response to the notice. Such response must include any counterclaims which the member believes are appropriate. If a counterclaim is submitted, then the member which submitted the notice may respond to the counterclaim within ten days of receipt. All such responses shall be Served on the Parties, the Chairman of the WSPP Operating Committee, and the WSPP General Counsel.
- C. **Choosing the Arbitrator.** The Arbitrator shall be chosen in accordance with the procedures set forth in Section 34.2 of the WSPP Agreement. Each Party may suggest persons to be included on the list of Arbitrators to be presented to the

Parties provided that these suggested persons are provided to the WSPP Representative together with relevant personal histories within two business days of the date by which time the list of Arbitrators is to be sent out. The WSPP Representative shall allow at least one person suggested by each Party to be added to the list of potential Arbitrators. A brief personal history of each person on the list of potential Arbitrators shall be provided to the Parties, with that history showing the person's employment over the last five years and any other relevant facts. The WSPP Representative shall provide the Parties with the list of Arbitrators within seven days of receipt of notice of the request for Arbitration. The Parties then shall have ten days in which to reach agreement on the Arbitrator or to inform the WSPP Representative that they were unable to reach agreement in which event the WSPP Representative shall appoint the Arbitrator consistent with Section 34.2 of the Agreement. Upon request of the Parties for expedition, the WSPP Representative shall use best efforts to cause this process to be expedited.

- D. **Location for the Arbitration.** The Parties shall agree on a location for the Arbitration. If the Parties fail to reach agreement, then the WSPP Representative shall set the location which shall be convenient for the Parties and the Arbitrator.
- E. **Time for the Arbitration.** The Parties shall agree on the time for the Arbitration and coordinate that time with the Arbitrator if one has been agreed to or appointed. If the Parties fail to reach agreement, then the WSPP Representative shall set the time which shall not be more than 60 days after the notice is received.

The WSPP Representative shall set a time after consultation with the Parties and the Arbitrator to check their schedules.

- F. **Discovery.** After appointment of the Arbitrator, each Party shall be entitled to obtain relevant documents from the other Parties and to take depositions. Each Party shall respond to such a document request within seven days of receipt of the request and make its employees or consultants available for depositions to the extent that the employee or consultant possesses knowledge and information relevant to the dispute. Each Party shall disclose documents that are confidential or commercially sensitive subject to a reasonable protective order. Any disputes concerning discovery shall be promptly referred to the Arbitrator who shall have authority to resolve such disputes, including the authority to require attendance of witnesses at depositions. The Federal Rules of Civil Procedure shall apply to discovery under these procedures.
- G. **Conduct of Arbitration if the Parties Agree to Waive an Oral Hearing.** If the Parties agree to waive an oral hearing, then the Parties shall Serve Initial Briefs no later than 35 days after the notice is received or notify the Arbitrator that they do not wish to submit any additional documents. Parties shall Serve any Reply Briefs no later than ten days after the date for Service of Initial Briefs.
- H. **Conduct of the Arbitration Hearing.** No later than fifteen days before any hearing, any Party may Serve an Initial Brief or notify the Arbitrator that they do not wish to submit any additional documents. A Party shall Serve any Reply Brief no later than five Business Days before any hearing. The Arbitrator shall preside over any hearing and rule on all objections including objections as to the



admissibility of evidence or whether the questioning is proper. All testimony shall be submitted under oath. The Arbitrator is not bound to follow any particular rules governing the conduct of the proceeding. The Arbitrator may rely on legal advice provided through the WSPP. The Arbitrator may require any person employed by a Party to attend and testify at the hearing. Each Party shall possess the right to present evidence, including witnesses, and to cross-examine other Parties' witnesses. The Arbitration shall be private and the Arbitrator shall have the authority to exclude any person not directly involved unless the Parties otherwise agree. Each Party may be represented by counsel. A stenographic record of the Arbitration shall be kept.

- I. **Decision.** Within ten Business Days after the end of the Arbitration hearing, the Arbitrator shall issue his award in writing. If the Parties waived the right to an oral hearing, then the Arbitrator shall issue the award within ten Business Days of the last date Briefs were to be submitted. The Arbitrator is not limited in the remedies he may order so long as any arbitration award is consistent with the provisions and limitations of the WSPP Agreement and any applicable Confirmation with respect to the liability and damages of any Party; provided, however, upon agreement of the Parties to the dispute, the Arbitrator's choice of remedies may be limited.
- J. **Replacement of the Arbitrator.** If the Arbitrator resigns, withdraws, or is no longer able to serve then the Parties shall have two Business Days in which to agree on a new Arbitrator. If the Parties are unable to agree within such time, the WSPP Representative shall appoint a replacement Arbitrator from the list used to

select the first Arbitrator within two Business Days after being notified that the Parties are unable to agree. The dates and deadlines in this section may require modification if the mediator is replaced. Any extensions shall be as limited as possible.

### III. MISCELLANEOUS

- A. **Confidentiality.** Any Arbitration or Mediation shall be confidential as provided in Section 34.4 of the WSPP Agreement.
- B. **Costs.** Costs shall be borne by Parties as provided in Section 34.3 of the WSPP Agreement.
- C. **Restrictions on Lawsuits.** Each Party shall be subject to the restrictions provided in Section 34.2 of the WSPP Agreement.
- D. **Attorney-Client/Attorney Workproduct.** The Arbitrator or Mediator shall not take any action which would result in disclosure of information in violation of the attorney-client privilege or attorney workproduct doctrine.

### IV. DEFINITIONS

- A. **Arbitrator or Arbitration.** The Arbitrator appointed pursuant to these procedures and Section 34.2 of the WSPP Agreement and the Arbitration pursuant to these procedures and the WSPP Agreement.
- B. **Initial or Reply Briefs.** Written documents submitted by the Parties to support their positions and respond to each others positions. Such documents shall be limited to 25 pages.
- C. **Business Days.** Defined as in the WSPP Agreement.

- D. **Mediator or Mediation.** The Mediator appointed pursuant to these procedures and Section 34.1 of the WSPP Agreement and the Mediation pursuant to these procedures and the WSPP Agreement.
- E. **Parties.** The WSPP members involved in the Mediation or Arbitration which have a direct interest in the dispute.
- F. **Service, Serving, or Served.** The method of service shall be by fax, unless impracticable because of the size of the document. In all events, the document should be delivered to the Party by overnight mail. Parties also should attempt to send the document out by email if possible. Service will be accomplished to a Party if sent to the Party's contact person for the disputed transaction. If there are multiple contact persons for one Party, service to one such person shall suffice. Service shall be to those individuals or entities specified in this procedures, but must include service to the Parties, the Mediator or Arbitrator (if either has been appointed), and to the WSPP General Counsel.
- G. **WSPP Representative.** The Chairman of the WSPP Operating Committee or his or her designee for the purposes of the Arbitration or Mediation.

## **SERVICE SCHEDULE A**

### **ECONOMY ENERGY SERVICE**

#### A-1 PARTIES:

This Service Schedule is agreed upon as a part of this Agreement by the Parties.

#### A-2 PURPOSE:

The purpose of this Service Schedule is to define additional specific procedures, terms and conditions for requesting and providing Economy Energy Service.

#### A-3 TERMS:

A-3.1 A Party may schedule Economy Energy Service from another Party by mutual agreement; provided, however, that each Party shall be the sole judge as to the extent to and the conditions under which it is willing to provide or receive such service hereunder consistent with statutory requirements and contractual commitments including the Agreement and any applicable Confirmation.

A-3.2 Scheduling of Economy Energy Service hereunder shall be a responsibility of the Parties involved.

A-3.3 Each Seller/Purchaser may prepare a daily estimate of the amount of Economy Energy Service that it is willing and able to sell/buy each hour and the associated hourly sale/purchase price for the next Business Day, plus the weekend and holidays, and communicate this information to all other Parties via the Hub.

A-3.4 Purchasers shall arrange purchases directly with Sellers, and shall be responsible for transmission arrangements.

A-3.5 Unless otherwise mutually agreed between the Purchaser and the Seller, all Economy Energy Service transactions shall be pre-scheduled, and billings shall be

based on amounts and prices agreed to in advance by schedulers, subject to Paragraphs A-3.6 and 3.7 and subject to change by mutual agreement between dispatchers or schedulers due to system changes.

A-3.6 The price for Economy Energy Service shall be mutually agreed to in advance between Seller and Purchaser and shall not be subject to the rate caps specified in Section A-3.7 in either of the following two circumstances:

- (1) where the Seller is a FERC regulated public utility and that Seller has been authorized to sell power like that provided for under this Service Schedule at market-based rates; or
- (2) where the Seller is not a FERC regulated public utility.

A Party is a FERC regulated public utility if it is a "public utility" as defined in Section 201(e) of the Federal Power Act, 16 U.S.C. § 824(e).

A-3.7 Except as provided for in Section A-3.6, the price shall not exceed the Seller's forecasted Incremental Cost plus up to: \$7.32/kW/ month; \$1.68/kW/week; 33.78¢/kW/day; 14.07 mills/kWh; or 21.11 mills/kWh for service of sixteen (16) hours or less per day. The hourly rate is capped at the Seller's forecasted Incremental Cost plus 33.78¢/kW/ day. The total demand charge revenues in any consecutive seven-day period shall not exceed the product of the weekly rate and the highest demand experienced on any day in the seven-day period. In lieu of payment, such Parties may mutually agree to exchange economy energy at a ratio not to exceed that ratio provided for in Section C-3.6 of Service Schedule C. The Seller's forecasted Incremental Cost discussed above also may include any transmission and/or ancillary service costs associated with the sale, including the cost of any

transmission and/or ancillary services that the Seller must take on its own system. Any such transmission and/or ancillary services charges shall be separately identified by the Seller to the Purchaser for transactions under this Schedule including the exchange of economy energy. The transmission and ancillary service rate ceilings shall be available through the WSPP's Hub or homepage. Any such transmission services (and ancillary service provided in conjunction with such transmission service) by Seller shall be provided pursuant to any applicable transmission tariff or agreement, and the rates therefore shall be consistent with such tariff or agreement. The foregoing hourly rate caps (i) are subject to the submission of cost justification by the applicable Seller to the FERC, and acceptance by FERC thereof, under Western Systems Power Pool, 122 FERC ¶ 61,139 (2008), or (ii) are inapplicable, in the event that the Seller has filed with FERC, and FERC has accepted, a rate schedule applicable solely to such Seller, which rate schedule has been, upon the request of the applicable Seller, incorporated into this Agreement at Schedule "Q" hereof (such incorporation to occur upon Seller's request without approval of the WSPP Executive Committee).

A-3.8 Unless otherwise agreed, the Purchaser shall be responsible for maintaining operating reserve requirements as back-up for Economy Energy Service purchased and the Seller shall not be required to maintain such operating reserve.

A-3.9 Each Party that is a FERC regulated public utility as defined in A-3.6 shall file the Confirmation with FERC for each transaction under this Service Schedule with a term in excess of one year no later than 30 days after service begins if that Party would have been required to file such Confirmation or similar agreements with

FERC under an applicable FERC accepted market based rate schedule.

**SERVICE SCHEDULE B**  
**UNIT COMMITMENT SERVICE**

B-1 PARTIES:

This Service Schedule is agreed upon as part of this Agreement by the Parties.

B-2 PURPOSE:

The purpose of this Service Schedule is to define additional specific procedures, terms, and conditions for requesting and providing Unit Commitment Service.

B-3 TERMS:

B-3.1 A Party may schedule Unit Commitment Service from another Party by mutual agreement; provided, however, that each Party shall be the sole judge as to the extent to and the conditions under which it is willing to provide or receive such service hereunder consistent with statutory requirements and contractual commitments including the Agreement and any applicable Confirmation. Once an agreement is reached, then the obligation for Unit Commitment Service becomes a firm commitment, for both Parties, for the agreed capacity and terms.

B-3.2 Unless otherwise mutually agreed by the Parties involved in a Unit Commitment Service transaction, the terms set forth in this Service Schedule B shall govern such transaction.

B-3.3 Unless otherwise agreed between the Purchaser and the Seller, all transactions shall be prescheduled, subject to any conditions agreed to by schedulers, for a specified unit for a specified period of time.

B-3.4 Purchasers shall arrange purchases directly with Sellers.

B-3.5 The price for Unit Commitment Service shall be mutually agreed to in advance between Seller and Purchaser and shall not be subject to the rate caps specified in



Section B-3.6 in either of the following two circumstances:

- (1) where the Seller is a FERC regulated public utility and that Seller has been authorized to sell power like that provided for under this Service Schedule at market-based rates; or
- (2) where the Seller is not a FERC regulated public utility.

A Party is a FERC regulated public utility if it is a "public utility" as defined in Section 201(e) of the Federal Power Act, 16 U.S.C. § 824(e).

B-3.6 Except as provided for in Section B-3.5, the price shall not exceed the Seller's forecasted Incremental Cost plus up to: \$7.32/kW/month; \$1.68/kW/week; 33.78¢/kW/day; 14.07 mills/kWh; or 21.11 mills/kWh for service of sixteen (16) hours or less per day. The hourly rate is capped at the Seller's forecasted Incremental Cost plus 33.78¢/kW/day. The total demand charge revenues in any consecutive seven-day period shall not exceed the product of the weekly rate and the highest demand experienced on any day in the seven-day period. The Seller's forecasted Incremental Cost discussed above also may include any transmission and/or ancillary service costs associated with the sale, including the cost of any transmission and/or ancillary services that the Seller must take on its own system. Any such transmission and/or ancillary service charges shall be separately identified by the Seller to the Purchaser. The transmission and ancillary service rate ceilings shall be available through the WSPP's Hub or homepage. The foregoing hourly rate caps (i) are subject to the submission of cost justification by the applicable Seller to the FERC, and acceptance by FERC thereof, under Western Systems Power Pool, 122 FERC ¶ 61,139 (2008), or (ii) are inapplicable, in the event that the Seller has

filed with FERC, and FERC has accepted, a rate schedule applicable solely to such Seller, which rate schedule has been, upon the request of the applicable Seller, incorporated into this Agreement at Schedule "Q" hereof (such incorporation to occur upon Seller's request without approval of the WSPP Executive Committee).

B-3.7 Start-up costs and no-load costs if included by the Seller shall be stated separately in the price.

B-3.8 Energy schedules for the Purchaser's share of a unit may be modified by the Purchaser with not less than a thirty (30) minute notice before the hour in which the change is to take place, unless otherwise mutually agreed or unforeseen system operating conditions occur.

B-3.9 Unit Commitment Service is intended to have assured availability; however, scheduled energy deliveries may be interrupted or curtailed as follows:

- (a) By the Seller by giving proper recall notice to the Purchaser if the Seller and the Purchaser have mutually agreed to recall provisions,
- (b) By the Seller when all or a portion of the output of the unit is unavailable, by an amount in proportion to the amount of the reduction in the output of the unit, unless otherwise agreed by the schedulers,
- (c) By the Seller to prevent system separation during an emergency, provided the Seller has exercised all prudent operating alternatives prior to the interruption or curtailment,
- (d) Where applicable, by the Seller to meet its public utility or statutory obligations to its customers, or
- (e) By either the Seller or the Purchaser due to the unavailability of transmission

capacity necessary for the delivery of scheduled energy.

B-3.10 Each Party that is a FERC regulated public utility as defined above in B-3.5 shall file the Confirmation with FERC for each transaction under this Service Schedule with a term in excess of one year no later than 30 days after service begins if that Party would have been required to file such Confirmation or similar agreements with FERC under an applicable FERC accepted market based rate schedule.

**B-4 BILLING AND PAYMENT PROVISIONS:**

B-4.1 Except as provided in Sections B-4.2 and B-5, billing for Unit Commitment Service shall be computed based upon the agreed upon prices.

B-4.2 In the event the Seller requests recall of Unit Commitment Service in a shorter time frame than was mutually agreed pursuant to Section B-3.9(a) and the Purchaser agrees to allow such recall, the Purchaser shall be relieved of any obligation to pay start-up costs.

**B-5 TERMINATION PROVISION:**

In the event Unit Commitment Service is curtailed or interrupted except as provided in Section B-3.9(a), the Purchaser shall have the option to cancel the Unit Commitment Service at any time by paying the Seller for (i) all energy deliveries scheduled up to the notice of termination and (ii) all separately stated start-up and no-load costs.

**SERVICE SCHEDULE C**  
**FIRM CAPACITY/ENERGY SALE OR EXCHANGE SERVICE**

C-1 PARTIES:

This Service Schedule is agreed upon as a part of this Agreement by the Parties.

C-2 PURPOSE:

The purpose of this Service Schedule is to define additional specific procedures, terms, and conditions for requesting and providing Firm Capacity/Energy Sale or Exchange Service.

C-3 TERMS:

C-3.1 A Party may schedule Firm Capacity/Energy Sale or Exchange Service from another Party by mutual agreement; provided, however, that each Party shall be the sole judge as to the extent to and the conditions under which it is willing to provide or receive such service hereunder consistent with statutory requirements and contractual commitments including the Agreement and any applicable Confirmation. Once an agreement is reached, then the obligation for Firm Capacity/Energy Sale or Exchange Service becomes a firm commitment, for both Parties, for the agreed service and terms.

C-3.2 Unless otherwise agreed between the Purchaser and the Seller, all transactions shall be prescheduled, subject to any conditions agreed to by schedulers.

C-3.3 Firm capacity transactions shall include buying, selling, or exchanging capacity between Parties with or without associated energy. A firm capacity sale or exchange is a commitment, in accordance with the terms and conditions specified in the Confirmation, of capacity resources.

C-3.4 Firm energy transactions shall include buying, selling, or exchanging firm energy between Parties in accordance with the terms and conditions specified in the Confirmation.

C-3.5 The price for Firm Capacity/Energy Sale or Exchange Service shall be mutually agreed to in advance between Seller and Purchaser and shall not be subject to the rate caps specified in Section C-3.6 in either of the following two circumstances:

- (1) where the Seller is a FERC regulated public utility and that Seller has been authorized to sell power like that provided for under this Service Schedule at market-based rates; or
- (2) where the Seller is not a FERC regulated public utility.

A Party is a FERC regulated public utility if it is a "public utility" as defined in Section 201(e) of the Federal Power Act, 16 U.S.C. § 824(e).

C-3.6 Except as provided for in Section C-3.5, the price shall not exceed the Seller's forecasted Incremental Cost plus up to: \$7.32/kW/month; \$1.68/kW/week; 33.78¢/kW/day; 14.07 mills/kWh; or 21.11 mills/kWh for service of sixteen (16) hours or less per day. The hourly rate is capped at the Seller's forecasted Incremental Cost plus 33.78¢/kW/day. The total demand charge revenues in any consecutive seven-day period shall not exceed the product of the weekly rate and the highest demand experienced on any day in the seven-day period. Exchange ratios among such Parties shall be as mutually agreed between the Purchaser and the Seller, but shall not exceed the ratio of 1.5 to 1.0. The Seller's forecasted Incremental Cost discussed above also may include any transmission and/or ancillary service costs associated with the sale, including the cost of any

transmission and/or ancillary services that the Seller must take on its own system. Any such transmission and/or ancillary service charges shall be separately identified by the Seller to the Purchaser for transactions under this Schedule including exchanges. The transmission and ancillary service rate ceiling shall be available through the WSPP's Hub or homepage. Any such transmission service (and ancillary services provided in conjunction with such transmission service) by Seller shall be provided pursuant to any applicable transmission tariff or agreement, and the rates therefore shall be consistent with such tariff or agreement. The foregoing hourly rate caps (i) are subject to the submission of cost justification by the applicable Seller to the FERC, and acceptance by FERC thereof, under Western Systems Power Pool, 122 FERC ¶ 61,139 (2008), or (ii) are inapplicable, in the event that the Seller has filed with FERC, and FERC has accepted, a rate schedule applicable solely to such Seller, which rate schedule has been, upon the request of the applicable Seller, incorporated into this Agreement at Schedule "Q" hereof (such incorporation to occur upon Seller's request without approval of the WSPP Executive Committee).

C-3.7 Firm Capacity/Energy Sale or Exchange Service shall be interruptible only if the interruption is: (a) within any recall time or allowed by other applicable provisions governing interruptions of service under this Service Schedule, as may be mutually agreed to by the Seller and the Purchaser, (b) due to an Uncontrollable Force as provided in Section 10 of this Agreement; or (c) where applicable, to meet Seller's public utility or statutory obligations to its customers; provided, however, this paragraph (c) shall not be used to allow interruptions for reasons other than

reliability of service to native load. If service under this Service Schedule is interrupted under Section C-3.7(a) or (b), neither Seller nor Purchaser shall be obligated to pay any damages under this Agreement or Confirmation. If service under this Service Schedule is interrupted for any reason other than pursuant to Section C-3.7(a) or (b), the Non-Performing Party shall be responsible for payment of damages as provided in Section 21.3 of this Agreement or in any Confirmation.

C-3.8 Each Party that is a FERC regulated public utility as defined in Section C-3.5 shall file the Confirmation with FERC for each transaction under this Service Schedule with a term in excess of one year no later than 30 days after service begins if that Party would have been required to file such Confirmation or similar agreements with FERC under an applicable FERC accepted market based rate schedule.

C-3.9 Seller shall be responsible for ensuring that Service Schedule C transactions are scheduled as firm power consistent with the most recent rules adopted by the applicable NERC regional reliability council.

**SERVICE SCHEDULE D**  
**OPERATING RESERVE – SPINNING**  
**AND**  
**OPERATING RESERVE –SUPPLEMENTAL**

**D-1 PURPOSE**

This Service Schedule specifies procedures, terms and conditions pursuant to which the Seller provides Operating Reserve – Spinning and/or Operating Reserve – Supplemental, as specified in the Confirmation, to enable the Designated Authority to meet a reserve obligation or to resell as ancillary services under an OATT.

**D-2 DEFINITIONS AND RULES ABOUT THIS SERVICE SCHEDULE**

D-2.1 Terms used in this Service Schedule with initial capitalization which are not defined in the Agreement or this Service Schedule shall have the meanings given to them in the NERC Glossary and Applicable Standards. In addition to the definitions specified in Section 4 of the Agreement, the following definitions apply to this Service Schedule.

D-2.1.1 “Applicable Standards” means the NERC Reliability Standards and the respective reliability standards and criteria of NERC, and of any Regional Reliability Organization, Balancing Authority, and Reserve Sharing Group applicable to the Seller’s provision and the Designated Authority’s use of Operating Reserve – Spinning or Operating Reserve – Supplemental, in force as of the date of the Confirmation.

D-2.1.2 “Demand Response Resource(s)” has the meaning given in 18 C.F.R. §35.28(b)(5).

D-2.1.3 “Designated Authority” means the Regional Reliability Organization, Balancing



Authority, Reserve Sharing Group or other entity designated in the Confirmation, which shall have a right to apply the applicable Reserve to the quantity of Reserve it is required to maintain, and to use such Reserve in accordance with the Applicable Standards. The Designated Authority and the Purchaser may be the same entity or two different entities. If the Designated Authority and the Purchaser are the same entity, then the Designated Authority shall also be the Purchaser for all purposes under the Agreement.

D-2.1.4 “Good Utility Practice” means any of the practices, methods, and acts engaged in or approved by a significant portion of the electric utility industry during the applicable time period in the applicable region, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision in question was made, could have been expected to accomplish the desired result in a manner that: (a) is consistent with the Applicable Standards; (b) gives due consideration to reliability, safety and protection of equipment and the public welfare; and (c) is consistent with good business practices, reliability, safety, and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method or act, or the exclusion of all other practices, but rather to be a range of acceptable practices, methods, or acts generally accepted in the region.

D-2.1.5 “NERC Glossary” means the NERC Glossary of Terms Used in Reliability Standards.

D-2.1.6 “Non-Performance” with respect to Seller shall have the meaning given in Section D-4.1, and with respect to Purchaser, the meaning given in Section D-

4.2.

D-2.1.7 “OATT” refers to the Open Access Transmission Tariff of the Designated Authority or, if the Designated Authority has no OATT, the pro forma Open Access Transmission Tariff of the FERC.

D-2.1.8 “OATT Schedule” refers to schedule 5 or 6 of the OATT for sale of ancillary services, or any other schedule under an OATT for sale of Operating Reserve – Spinning or Operating Reserve – Supplemental.

D-2.1.9 “Operating Reserve – Spinning” shall have the meaning given in the NERC Glossary of Terms and the Applicable Standards, and is the product transacted under schedule 5 or similar schedule under an OATT.

D-2.1.10 “Operating Reserve – Supplemental” shall have the meaning given in the NERC Glossary of Terms and the Applicable Standards, and is the product transacted under schedule 6 or similar schedule under an OATT.

D-2.2 The following rules apply to this Service Schedule.

D-2.2.1 In the event of inconsistency between the definition in the NERC Glossary of Terms and the Applicable Standards, the Applicable Standards shall control.

D-2.2.2 No product sold or transferred under this Service Schedule D shall include reactive supply and voltage control service, or Regulation and Frequency Response service.

D-2.2.3 The OATT, OATT Schedules, regulations of the FERC, the NERC Glossary, and Applicable Standards shall be applied in their forms as of the date of the Confirmation.

D-3 TERMS OF SERVICE

D-3.1 Each Confirmation entered into under this Service Schedule shall contain the following information, and may contain other terms and conditions to which the Parties agree:

- (a) A prominent designation of the service, Operating Reserve – Spinning and/or Operating Reserve – Supplemental, to which the Confirmation applies;
- (b) Identification of the Designated Authority and if the Designated Authority is not a Regional Reliability Organization, the Regional Reliability Organization within which the Designated Authority is electrically located;
- (c) The Standard Confirmation Provisions, as applicable;
- (d) Any additional attributes of the Operating Reserve – Spinning or Operating Reserve – Supplemental, as the Parties may agree;
- (e) The means by which requests for energy required to be delivered under the Service Schedule shall be communicated; and
- (f) Any conditions to the effectiveness of the Confirmation, including, for example, the completion of any arrangements or agreements between the Seller and the Designated Authority or among the Seller, Designated Authority, and Purchaser.

D-3.2 Contract Price. The Contract Price may include separately stated charges for capacity and energy, and any agreements concerning transmission arrangements and payment obligations.

D-3.3 Seller shall provide Operating Reserve – Spinning or Operating Reserve – Supplemental, as applicable, to the Designated Authority in conformity with the Applicable Standards and any additional attributes specified in the Confirmation as are consistent with the Applicable Standards. Seller shall provide such service from one or more generation resources or Demand Response Resources. Such resources must be physically and

operationally available to respond within the time periods, and in conformance with other technical and operational criteria, prescribed by, the Applicable Standards for the applicable service, and as required to conform to any additional attributes stated in the Confirmation.

#### D-3.4 Obligations Concerning Capacity and Requests for and Delivery of Energy

D-3.4.1 Seller shall provide capacity and deliver energy associated with Operating Reserve – Spinning or Operating Reserve – Supplemental, in quantities up to the applicable capacity(ies) specified in the Confirmation for the applicable hour(s), as and when the Designated Authority requests such delivery in the manner of request specified in the Confirmation and in accordance with Section D-3.4.2.

D-3.4.2 The Designated Authority shall use the capacity and energy provided by Seller under this Service Schedule for the sole purpose of satisfying the Designated Authority's own obligations pertaining to Operating Reserve – Spinning and Operating Reserve – Supplemental, as specified in the Applicable Standards or the Confirmation. Purchaser shall ensure that the Designated Authority shall not require Seller to deliver energy under this Service Schedule except as and when the Designated Authority determines, in its good faith discretion reasonably exercised in accordance with Good Utility Practice or such other criteria as may be stated in the Confirmation, that such energy is required to enable it to respond to a contingency or other event for which the service specified in the Confirmation is permitted to be utilized under the Applicable Standards or as otherwise stated in the Confirmation.

D-3.5 Inspection and Audit. The Purchaser and Designated Authority shall have the right, to

conduct such inspections and audits of Seller's records as are reasonable to assure that the Seller's provision of services under this Service Schedule and Confirmation conforms to the Applicable Standards and the Confirmation. The Seller shall have the right to conduct inspections and audits of the Designated Authority's records as reasonably required to assure that any use by the Designated Authority of the services under this Service Schedule and Confirmation conformed to Section D-3.4.2 and the Confirmation. The Parties may state further details and conditions in the Confirmation concerning these rights, including, for example, provisions concerning confidentiality or limiting inspection to an agreed third-party auditor.

#### D-3.6 Regulatory Matters – Rate Caps

D-3.6.1 The price for Operating Reserve – Spinning or Operating Reserve – Supplemental shall not be subject to the rate caps specified in Section D-3.6.2 in either of the following two circumstances:

- (1) where the Seller is a FERC regulated public utility and that Seller has been authorized to sell power like that provided for under this Service Schedule at market-based rates; or
- (2) where the Seller is not a FERC regulated public utility.

A Party is a FERC regulated public utility if it is a "public utility" as defined in Section 201(e) of the Federal Power Act, 16 U.S.C. § 824(e).

D-3.6.2 Except as provided for in Section D-3.6.1, the price shall not exceed the Seller's forecasted Incremental Cost plus up to: \$7.32/kW/month; \$1.68/kW/week; 33.78¢/kW/day; 14.07 mills/kWh; or 21.11 mills/kWh for service of sixteen (16) hours or less per day. The hourly rate is capped at the Seller's forecasted

Incremental Cost plus 33.78¢/kW/day. The total demand charge revenues in any consecutive seven-day period shall not exceed the product of the weekly rate and the highest demand experienced on any day in the seven-day period. Exchange ratios among such Parties shall be as mutually agreed between the Purchaser and the Seller, but shall not exceed the ratio of 1.5 to 1.0. The Seller's forecasted Incremental Cost discussed above also may include any transmission and/or ancillary service costs associated with the sale, including the cost of any transmission and/or ancillary services that the Seller must take on its own system. Any such transmission and/or ancillary service charges shall be separately identified by the Seller to the Purchaser for transactions under this Schedule including exchanges. The transmission and ancillary service rate ceiling shall be available through the WSPP's Hub or homepage. Any such transmission service (and ancillary services provided in conjunction with such transmission service) by Seller shall be provided pursuant to any applicable transmission tariff or agreement, and the rates therefore shall be consistent with such tariff or agreement. The foregoing hourly rate caps (i) are subject to the submission of cost justification by the applicable Seller to the FERC, and acceptance by FERC thereof, under Western Systems Power Pool, 122 FERC ¶ 61,139 (2008), or (ii) are inapplicable, in the event that the Seller has filed with FERC, and FERC has accepted, a rate schedule applicable solely to such Seller, which rate schedule has been, upon the request of the applicable Seller, incorporated into this Agreement at Schedule "Q" hereof (such incorporation to occur upon Seller's request without approval of the WSPP Executive

Committee).

#### D-4 NON-PERFORMANCE, DAMAGES AND TERMINATION

D-4.1 Seller Non-Performance. “Non-Performance” with respect to Seller means Seller’s failure to provide capacity or deliver energy to the Designated Authority as this Service Schedule and the Confirmation require.

D-4.1.1 Purchaser Entitlement to Damages. In the event of Non-Performance by Seller, Seller shall pay damages to Purchaser calculated in accordance with Section 21.3 of the Agreement.

D-4.1.2 Purchaser Option to Terminate. Purchaser shall have an option to declare any instance of Seller’s Non-Performance under Section D-4.2 an Event of Default under the Agreement and the remedies for an Event of Default under Section 22.2(b) of the Agreement shall apply (excluding Section 22.2(a)), provided, that the right to terminate transactions for such Non-Performance shall be limited to transactions under this Service Schedule D. Exercise of the termination option under this Section D-4.1.2 shall not diminish the performing Party’s rights to collect damages for such Non-Performance under Section D-4.1.1, or to avail itself of remedies for other Events of Default.

D-4.2 Purchaser Non-Performance. “Non-Performance” with respect to the Purchaser means the Designated Authority’s failure to receive capacity and/or energy, or the Designated Authority’s use of capacity and/or energy under this Service Schedule which use does not conform to Section D-3.4.2 (such capacity and/or energy, the “unauthorized energy”).

D-4.2.1 Seller Entitlement to Damages. In the event of Non-Performance by Purchaser, Purchaser shall compensate Seller in an amount equal to the quantity of

unauthorized energy Seller was required to deliver during each hour, multiplied by the energy charge for the applicable hour.

D-4.2.2 Seller Option to Terminate. Seller shall have an option to declare any instance of Purchaser's Non-Performance under Section D-4.2 an Event of Default under the Agreement and the remedies for an Event of Default under Section 22.2(b) of the Agreement shall apply (but not Section 22.2(a)), provided that the right to terminate all transactions for such Non-Performance shall be limited to transactions under this Service Schedule D. Exercise of the termination option under this Section D-4.2.2 shall not diminish the performing Party's rights to collect damages for such Non-Performance under Section D-4.2.1, or to avail itself of remedies for other Events of Default under the Agreement.

D-4.3 Termination under Section D-4.1.2 or D-4.4.2 shall become effective immediately upon receipt by the non-performing Party of the Performing Party's written notice thereof, which notice shall specify the Non-Performance. If the Performing Party fails to exercise its termination option arising from an instance of Non-Performance under Section D-4.1.2 or D-4.2.2 within thirty (30) days following the date the option to terminate arose, then solely with respect to that instance of Non-Performance, the termination option shall cease to be available to the Performing Party.

D-4.4 Nothing in this Service Schedule shall restrict the right of either Party to avail itself of other remedies provided in the Agreement.



## **SERVICE SCHEDULE E**

### **ENERGY IMBALANCE AND GENERATOR IMBALANCE POWER**

#### **E-1 PURPOSE**

This Service Schedule states procedures, terms and conditions pursuant to which the Seller provides Energy Imbalance Power and Generation Imbalance Power to the Purchaser, as specified in the Confirmation, and the Purchaser receives such service to meet a reliability obligation or to resell as ancillary services under an OATT.

#### **E-2 DEFINITIONS AND RULES ABOUT THIS SERVICE SCHEDULE**

E-2.1 In addition to the definitions specified in Section 4 of the Agreement, the following definitions apply to this Service Schedule E.

E-2.1.1 “Balancing Power” means a service or product that can be resold as Energy Imbalance Power or Generator Imbalance Power under Schedules 4 and 9, respectively, of the OATT or other schedule under an OATT for sale of imbalance power.

E-2.1.2 “Demand Response Resource(s)” has the meaning given in 18 C.F.R. §35.28(b)(5).

E-2.1.3 “Non-Performance” with respect to Seller shall have the meaning given in Section E-4.1 and with respect to Purchaser the meaning given in Section E-4.2.

E-2.1.4 “OATT” refers to the Purchaser’s Open Access Transmission Tariff approved by the FERC or, if the Purchaser has no OATT, the pro forma Open Access Transmission Tariff of the FERC.

E-2.1.5 “OATT Schedule” refers to schedule 4 or 9 of the OATT for sale of ancillary services, or any other schedule for sale of imbalance power under an OATT.

E-2.2 The following rules apply to this Service Schedule.

E-2.2.1 No product sold or transferred under this Service Schedule E shall include reactive supply and voltage control service, or Regulation and Frequency Response service.

E-2.2.2 The OATT and OATT Schedules shall be applied in their forms as of the date of the Confirmation.

### E-3 TERMS OF SERVICE

E-3.1 Each Confirmation entered into under this Service Schedule shall contain the following information, and may contain other terms and conditions to which the Parties agree:

- (a) A prominent designation of the service, Energy Imbalance and Generator Imbalance Power, to which the Confirmation applies;
- (b) The Standard Confirmation Provisions, as applicable;
- (c) Any additional attributes of the Balancing Power, as the Parties may agree;
- (d) The means by which requests for energy required to be delivered under the Service Schedule shall be communicated; and
- (e) Any conditions to the effectiveness of the Confirmation.

E-3.2 Contract Price. The Contract Price may include separately stated charges for capacity and energy, and any agreements concerning transmission arrangements and payment obligations.

E-3.3 Seller shall provide Balancing Power from one or more generation resources or Demand Response Resources. Such resources must be physically and operationally available to respond within the time periods, and in conformance with other technical and operational criteria, as may be stated in the Confirmation.

#### E-3.4 Obligations Concerning Capacity and Requests for and Delivery of Energy

E-3.4.1 Upon the requests of the Purchaser, Seller shall provide capacity and deliver energy associated with Balancing Power to the Purchaser at any rate of flow up to and including the applicable capacity(ies) and at such intervals as are specified in the Confirmation for the applicable hour(s).

E-3.4.2 Transmission must be available intra-hour, and may be arranged and scheduled in any manner that meets the requirements of the Parties.

#### E-3.5 Regulatory Matters – Rate Caps

E-3.5.1 The price for Balancing Power shall not be subject to the rate caps specified in Section E-3.5.2 in either of the following two circumstances:

- (1) where the Seller is a FERC regulated public utility and that Seller has been authorized to sell power like that provided for under this Service Schedule at market-based rates; or
- (2) where the Seller is not a FERC regulated public utility.

A Party is a FERC regulated public utility if it is a "public utility" as defined in Section 201(e) of the Federal Power Act, 16 U.S.C. § 824(e).

E-3.5.2 Except as provided for in Section E-3.5.1, the price shall not exceed the Seller's forecasted Incremental Cost plus up to: \$7.32/kW/month; \$1.68/kW/week; 33.78¢/kW/day; 14.07 mills/kWh; or 21.11 mills/kWh for service of sixteen (16) hours or less per day. The hourly rate is capped at the Seller's forecasted Incremental Cost plus 33.78¢/kW/day. The total demand charge revenues in any consecutive seven-day period shall not exceed the product of the weekly rate and the highest demand experienced on any day in the seven-day period. Exchange

ratios among such Parties shall be as mutually agreed between the Purchaser and the Seller, but shall not exceed the ratio of 1.5 to 1.0. The Seller's forecasted Incremental Cost discussed above also may include any transmission and/or ancillary service costs associated with the sale, including the cost of any transmission and/or ancillary services that the Seller must take on its own system. Any such transmission and/or ancillary service charges shall be separately identified by the Seller to the Purchaser for transactions under this Schedule including exchanges. The transmission and ancillary service rate ceiling shall be available through the WSPP's Hub or homepage. Any such transmission service (and ancillary services provided in conjunction with such transmission service) by Seller shall be provided pursuant to any applicable transmission tariff or agreement, and the rates therefore shall be consistent with such tariff or agreement. The foregoing hourly rate caps (i) are subject to the submission of cost justification by the applicable Seller to the FERC, and acceptance by FERC thereof, under Western Systems Power Pool, 122 FERC ¶ 61,139 (2008), or (ii) are inapplicable, in the event that the Seller has filed with FERC, and FERC has accepted, a rate schedule applicable solely to such Seller, which rate schedule has been, upon the request of the applicable Seller, incorporated into this Agreement at Schedule "Q" hereof (such incorporation to occur upon Seller's request without approval of the WSPP Executive Committee).

#### E-4 NON-PERFORMANCE, DAMAGES AND TERMINATION

E-4.1 Seller Non-Performance. "Non-Performance" with respect to Seller means Seller's

failure to provide capacity or deliver energy to the Purchaser as this Service Schedule and the Confirmation require.

E-4.1.1 Purchaser Entitlement to Damages. In the event of Non- Performance by Seller, Seller shall pay damages to Purchaser calculated in accordance with Section 21.3 of the Agreement.

E-4.1.2 Purchaser Option to Terminate. Purchaser shall have an option to declare any instance of Seller's Non-Performance under Section E-4.1 an Event of Default under the Agreement and the remedies for an Event of Default under Section 22.2(b) of the Agreement shall apply (excluding Section 22.2(a)), provided that the right to terminate transactions for such Non-Performance shall be limited to transactions under this Service Schedule E. Exercise of the termination option under this Section E-4.1.2 shall not diminish the performing Party's rights to collect damages for such Non-Performance under Section E-4.1.1, or to avail itself of remedies for other Events of Default.

E-4.2 Purchaser Non-Performance. "Non-Performance" with respect to Purchaser means Purchaser's failure to receive energy that it had scheduled for receipt under this Service Schedule and the Confirmation.

E-4.2.1 Seller Entitlement to Damages. In the event of Non-Performance by Purchaser, Purchaser shall pay damages to Seller calculated in accordance with Section 21.3 of the Agreement.

E-4.2.2 Seller Option to Terminate. Seller shall have an option to declare any instance of Purchaser's Non-Performance under Section E-4.2 an Event of Default under the Agreement and the remedies for an Event of Default under Section 22.2(b) of the

Agreement shall apply (excluding Section 22.2(a)), provided that the right to terminate transactions for such Non-Performance shall be limited to transactions under this Service Schedule E. Exercise of the termination option under this Section E-4.2.2 shall not diminish the performing Party's rights to collect damages for such Non-Performance under Section E-4.2.1, or to avail itself of remedies for other Events of Default.

E-4.3 Termination under Section E-4.1.2 or E-4.2.2 shall become effective immediately upon receipt by the non-performing Party of the Performing Party's written notice thereof, which notice shall specify the Non-Performance. If the Performing Party fails to exercise its termination option arising from an instance of Non-Performance under Section E-4.1.2 or E-4.2.2 within thirty (30) days following the date the option to terminate arose, then solely with respect to that instance of Non-Performance, the termination option shall cease to be available to the Performing Party.

E-4.4 Nothing in this Service Schedule shall restrict the right of either Party to avail itself of other remedies provided in the Agreement.

**SERVICE SCHEDULE R**  
**RENEWABLE ENERGY CERTIFICATE TRANSACTIONS**  
**WITH AND WITHOUT ENERGY**

**R-1 Introduction; Transaction Documentation; and Rules of Construction.** This Service Schedule R states terms and conditions applicable to REC Transactions entered into by Parties under the Agreement.

**R-1.1 Documentation.** Each REC Transaction shall be documented in a Confirmation.

Annex 2 is a Confirmation template, which the Parties may modify and make subject to any other agreement between them. A Confirmation for a REC Transaction will be given legal effect only if a Documentary Writing.

**R-1.2 Contract Documents.** The Agreement, Service Schedule R, and the fully executed Confirmation comprise a contract for a REC Transaction. Any conflicts between or among the Agreement, Service Schedule R, and the Confirmation shall be resolved in the following order of control: first, the Confirmation; second, Service Schedule R; and third, the Agreement.

**R-1.3 Definitions.** Definitions contained in the Agreement and Annex 1 apply to this Service Schedule R. Any conflicts among definitions contained in these documents shall be resolved in accordance with Section R-1.2.

**R-1.4 Rules of Construction.**

**R-1.4.1** The Annexes of Service Schedule R are incorporated into and made a part of this Service Schedule R, as though set forth fully herein.

**R-1.4.2** The word “including” shall mean “including but not limited to.” Unless otherwise specified, the word “Section” refers to a section of this Service Schedule R and includes all subparts of the specified section.

**R-1.4.3** Subject to any legal restrictions applicable to a Party, the Parties to a REC Transaction may vary any term or condition of this Service Schedule R for that REC Transaction. Provisions in this Service Schedule R concerning such variance of terms, such as “unless otherwise agreed,” shall not prejudice the generality of the preceding sentence, provided, that the Parties shall not vary Section C-3.6 of Service Schedule C, Section B-3.6 of Service Schedule B, and Section A-3.7 of Service Schedule A.

**R-1.4.4** An Applicable Program shall be applicable to a REC Transaction only if designated expressly in the Confirmation. No rule of contract construction or interpretation, and no inference or implication, shall cause an Applicable Program that is not designated expressly in the Confirmation to be applicable to a REC Transaction.

**R-2 Confirmations; REC Products.**

**R-2.1 REC Transaction.** A “REC Transaction” is a purchase and sale of a REC separately from or bundled with Energy. A REC Transaction may be for the purchase and sale of any REC Product defined in Section R-2.3 or another REC Product the Parties may define.

**R-2.2 Confirmations.** In addition to other terms and conditions to which the Parties may agree, the Confirmation:

**R-2.2.1** must include the following terms: REC Product, Contract Quantity, Contract Price, Vintage, and Transfer Date, and whether the Environmental Attributes covered by the REC are All Attributes, Program Attributes, or other coverage the Parties may specify;



**R-2.2.2** for a bundled REC Transaction (Firm Bundled REC, Resource Contingent Bundled REC, or Facility As-Run Bundled REC), may include a single Contract Price which may be allocated between the REC and the Energy;

**R-2.2.3** must identify the Renewable Energy Facility or Renewable Energy Source if the REC Transaction is All Attributes (Section R-2.4.1) or Program Attributes (Section R-2.4.2), if a designated Applicable Program requires such identification, or if the REC Product is Resource Contingent Bundled REC or Facility As-Run Bundled REC;

**R-2.2.4** must designate an Applicable Program if the REC Transaction is Program Attributes, the Seller is to assure compliance with an Applicable Program (Sections R-5.2.1, 6.3, and 6.4), or to recover penalties and alternative compliance payments (Section R-9.1), and if the REC Transaction is All Attributes, may designate an Applicable Program (Section 2.4.1).

**R-2.3 REC Products.** A “REC Product” is any of the following defined products or other product specified in the Confirmation.

**R-2.3.1 Firm REC.** A “Firm REC” is a REC purchased and sold in a transaction that does not include the sale or purchase of energy. The Seller has a firm obligation to Deliver the REC pursuant to the Confirmation. A remedy for non-performance is available under Section R-9, except in the event and to the extent of Uncontrollable Force.

**R-2.3.2 Firm Bundled REC.** A “Firm Bundled REC” is a REC purchased and sold in a transaction that includes the purchase and sale of Energy. The Seller has a firm obligation to Deliver the REC and Energy pursuant to the Confirmation. A remedy for non-performance is available under Section R-9, except in the event and to the extent of Uncontrollable Force. The terms and conditions of Service Schedule C apply to the purchase and sale of Energy associated with a Firm Bundled REC as the Parties may modify such terms and conditions in the Confirmation, subject to the proviso stated in Section R-1.4.3. The hourly rate caps identified in Section C-3.6 of Service Schedule C shall apply, except (1) where the Seller is a FERC regulated “public utility” as defined in Section 201(e) of the Federal Power Act, 16 U.S.C. § 824(e), and that Seller has been authorized to sell power like that provided for in Service Schedule C at market-based rates; or (2) where the Seller is not such a FERC regulated “public utility.” When such hourly rate caps apply, (a) if the Contract Price is allocated between the REC and the Energy, the hourly rate caps shall apply to the Contract Price for the Energy and not the REC; and (b) if the Contract Price is not allocated between the REC and the Energy, the hourly rate caps shall apply to the bundled Contract Price.

**R-2.3.3 Resource Contingent REC.** A “Resource Contingent REC” is a REC purchased and sold in a transaction that does not include the sale or purchase of Energy. The Seller has a resource contingent obligation to Deliver the REC pursuant to the Confirmation. A remedy for non-

performance is available under Section R-9, except in the event and to the extent: (i) of Uncontrollable Force; (ii) the Renewable Energy Facility identified in the Confirmation was not on line to produce energy required for the REC due to Forced Outage, Scheduled Maintenance, or Fuel Impediment; or (iii) of the occurrence of such other circumstances to which the Parties may have agreed in the Confirmation, resulting in a reduction of output or unavailability to produce energy required for the REC. In the event and to the extent of an outage under (ii) or, if applicable, (iii), the resulting reduction in output for the applicable hour shall be allocated among all purchasers of RECs from the Renewable Energy Facility who are identified in the Confirmation (including purchasers identified under any provisions in the Confirmation allowing for subsequent identification) in accordance with any priorities or shares stated in the Confirmation, and if no priorities or shares are stated in the Confirmation, then proportionately in accordance with such purchasers' contract quantities under contracts with Seller.

**R-2.3.4 Resource Contingent Bundled REC.**

- (a) A "Resource Contingent Bundled REC" is a REC purchased and sold in a transaction that includes the purchase and sale of Energy. The Seller has a resource contingent obligation to Deliver the REC and Energy pursuant to the Confirmation. A remedy for non-performance is available under Section R-9, except in the event and to the extent: (i) of Uncontrollable

Force; (ii) the Renewable Energy Facility identified in the Confirmation was not on line to produce energy required for the REC or Delivery, due to Forced Outage, Scheduled Maintenance, or Fuel Impediment; or (iii) of the occurrence of such other circumstances to which the Parties agreed in the Confirmation, resulting in a reduction of output or unavailability to produce energy required for the REC or Delivery. In the event and to the extent of an outage under (ii) or, if applicable, (iii), the resulting reduction in output for the applicable hour shall be allocated among all purchasers of RECs and energy from the Renewable Energy Facility who are identified in the Confirmation (including purchasers identified under any provisions in the Confirmation allowing for subsequent identification) in accordance with any priorities or shares stated in the Confirmation, and if no priorities or shares are stated in the Confirmation, then proportionately in accordance with such purchasers' contract quantities under contracts with Seller.

- (b) The terms and conditions of Service Schedule B apply to the purchase and sale of Energy associated with a Resource Contingent Bundled REC as modified herein and as may be modified in the Confirmation, subject to the proviso stated in Section R-1.4.3. The hourly rate caps identified in Section B-3.6 of Service Schedule B shall apply, except (1) where the

Seller is a FERC regulated “public utility” as defined in Section 201(e) of the Federal Power Act, 16 U.S.C. § 824(e), and that Seller has been authorized to sell power like that provided for in Service Schedule B at market-based rates; or (2) where the Seller is not such a FERC regulated “public utility.” When such hourly rate caps apply, (a) if the Contract Price is allocated between the REC and the Energy, the hourly rate caps shall apply to the Contract Price for the Energy and not the REC; and (b) if the Contract Price is not allocated between the REC and the Energy, the hourly rate caps shall apply to the bundled Contract Price. Service Schedule B Section B-3.8 is modified to state the following:

Energy schedules for the Purchaser's share of a Renewable Energy Facility may be modified by the Purchaser with not less than a thirty (30) minute notice before the hour in which the modification is to occur, unless otherwise agreed or unforeseen system operating conditions occur, or as otherwise required by, or pursuant to customary practice in, the applicable regional reliability council. A reduction in the energy schedule shall be made commensurately for the REC requirement for the applicable hour. Seller shall notify Purchaser of volumes to be delivered no later than thirty (30) minutes before the hour in which delivery is

to occur unless otherwise agreed or such notification is infeasible due to unforeseen system operating conditions. Seller shall timely notify the Purchaser of Scheduled Maintenance.

The following is added at the end of Section B-3.9:

(f) By the Seller when all or a portion of the unit is unavailable due to Fuel Impediment, unless otherwise agreed by the schedulers.

**R-2.3.5 Facility As-Run REC.** A “Facility As-Run REC” is a REC purchased and sold in a transaction that does not include the sale or purchase of Energy. The Seller is obligated to Deliver the REC pursuant to the Confirmation. A remedy for non-performance is available under Section R-9, except in the event and to the extent that, for any reason or no reason, the Renewable Energy Facility identified in the Confirmation was not on line to produce energy required for the REC. If the Renewable Energy Facility designated in the Confirmation is not operated, the resulting reduction in output for the applicable hour shall be allocated among all purchasers of RECs from the Renewable Energy Facility who are identified in the Confirmation (including purchasers identified under any provisions in the Confirmation allowing for subsequent identification) in accordance with any priorities or shares stated in the Confirmation, and if no priorities or shares are stated in the Confirmation, then proportionately in

accordance with such purchasers' contract quantities under contracts with Seller.

**R-2.3.6 Facility As-Run Bundled REC.**

- (a) A "Facility As-Run Bundled REC" is a REC purchased and sold in a transaction that includes the purchase and sale of Energy. The Seller has an obligation to Deliver the REC and Energy pursuant to the Confirmation. A remedy for non-performance is available under Section R-9, except in the event and to the extent that, for any reason or no reason, the Renewable Energy Facility identified in the Confirmation was not on line to produce energy required for the REC or Delivery. If the Renewable Energy Facility designated in the Confirmation is not operated, the resulting reduction in output for the applicable hour shall be allocated among all purchasers of RECs and energy from the Renewable Energy Facility who are identified in the Confirmation (including purchasers identified under any provisions in the Confirmation allowing for subsequent identification) in accordance with any priorities or shares stated in the Confirmation, and if no priorities or shares are stated in the Confirmation, then proportionately in accordance with such purchasers' contract quantities under contracts with Seller.
- (b) The terms and conditions of Service Schedule A apply to the purchase and sale of Energy associated with a Facility As-Run

Bundled REC as modified herein and as may be modified in the Confirmation, subject to the proviso stated in Section R-1.4.3. The hourly rate caps identified in Section A-3.7 of Service Schedule A shall apply, except (1) where the Seller is a FERC regulated “public utility” as defined in Section 201(e) of the Federal Power Act, 16 U.S.C. § 824(e), and that Seller has been authorized to sell power like that provided for in Service Schedule A at market-based rates; or (2) where the Seller is not such a FERC regulated “public utility.” When such hourly rate caps apply, (a) if the Contract Price is allocated between the REC and the Energy, the hourly rate caps shall apply to the Contract Price for the Energy and not the REC; and (b) if the Contract Price is not allocated between the REC and the Energy, the hourly rate caps shall apply to the bundled Contract Price. Service Schedule A Section A-3.3 is modified to state the following:

Energy schedules may be modified by the Purchaser or Seller with not less than a thirty (30) minute notice before the hour in which the modification is to occur, unless otherwise agreed or unforeseen system operating conditions occur, or as otherwise required by, or pursuant to customary practice in, the applicable regional reliability council. A reduction in the energy schedule shall be made commensurately for the REC



requirement for the applicable hour. Seller shall notify Purchaser of volumes to be delivered no later than thirty (30) minutes before the hour in which delivery is to occur unless otherwise agreed or such notification is infeasible due to unforeseen system operating conditions.

**R-2.4 Environmental Attributes Contained In The REC.** The Confirmation may describe the Environmental Attributes covered by the REC as All Attributes, Program Attributes, or as the Parties otherwise may agree. If the Confirmation does not designate a REC Transaction as Program Attributes or otherwise limit the Environmental Attributes conveyed, and if a Renewable Energy Facility or Renewable Energy Source is specified, the REC Transaction shall be All Attributes. A designation of All Attributes will not be effective unless a Renewable Energy Facility or Renewable Energy Source is designated in the Confirmation.

**R-2.4.1 All Attributes.** An “All Attributes” REC conveys all of the Environmental Attributes the Renewable Energy Facility or Renewable Energy Source designated in the Confirmation is capable of producing, whether known or unknown on the Effective Date, including, at a minimum, all Environmental Attributes required by any Applicable Program designated in the Confirmation. Seller disclaims any warranty that Environmental Attributes other than those required by an Applicable Program designated in the Confirmation fulfill the requirements of any other Applicable Program. To establish the

Environmental Attributes conveyed, the Confirmation may include a specification thereof.

**R-2.4.2 Program Attributes.** A “Program Attributes” REC conveys the Environmental Attributes required by an Applicable Program designated in the Confirmation. It conveys no other Environmental Attributes, the rights to which are retained by the Seller. The Parties should verify that a designated Tracking System will recognize a Program Attributes REC. (Note, WREGIS does not recognize a Program Attributes limitation upon conveyed Environmental Attributes.)

### **R-3 Delivery and Title.**

**R-3.1 Unbundled REC Transactions.** This Section R-3.1 applies if the REC Product is a Firm REC, Resource Contingent REC, or Facility As-Run REC.

**R-3.1.1 Delivery.** “Deliver(y)(ed)” occurs upon completion of Seller’s transfer of the Contract Quantity to Purchaser. If a Tracking System is designated in the Confirmation, Seller shall cause transfer in accordance with the rules and procedures of the Tracking System. If the Tracking System does not state such rules or procedures, then Delivery shall occur upon the Tracking System’s transfer of the REC into Purchaser’s account. If a Tracking System is not designated in the Confirmation, Delivery is completed upon Seller’s delivery to Purchaser of an Attestation.

**R-3.1.2 Acceptance.** “Accept(ance)(ed)” means Purchaser’s receipt of Delivery of the REC from Seller, without Purchaser’s rejection. If a

Tracking System is designated in the Confirmation, Purchaser shall receive a transfer in accordance with the rules and procedures of the Tracking System, and Acceptance (or rejection) shall be made within five (5) Business Days following the date the Tracking System gives electronic notice to Purchaser that it has initiated transfer (this deadline applies regardless of any different period stated in the Tracking System's rules and procedures) and if timely rejection is not made, then the Delivery is Accepted. If a Tracking System is not designated in the Confirmation, Acceptance occurs upon Purchaser's Acceptance, without rejection within five (5) Business Days of delivery, of the Attestation delivered by Seller.

**R-3.1.3 Passage of Title.** Title to the REC shall pass from Seller to Purchaser upon Delivery and Acceptance.

**R-3.2 Bundled REC Transactions.** This Section R-3.2 applies if the REC Product is a Firm Bundled REC, Resource Contingent Bundled REC, or Facility As-Run Bundled REC.

**R-3.2.1 Delivery.** "Delivery(y)(ed)" occurs upon completion of Seller's transfer to Purchaser of the Contract Quantity of the REC and the Contract Quantity of the Energy. Delivery of the REC shall be completed in accordance with Section R-3.1.1. Delivery of Energy shall be completed in accordance with the terms and conditions of the Confirmation and the Agreement.

**R-3.2.2 Acceptance.** “Acceptance” of the REC occurs in the manner specified in Section R-3.1.2, and of the Energy upon receipt at the delivery point in accordance with the Confirmation.

**R-3.2.3 Passage of Title.** If the Vintage of the REC is prior to the Effective Date, title to the REC passes from Seller to Purchaser on the Effective Date or other date to which the Parties agree. If the REC is to be generated on or after the Effective Date, title to the REC passes upon the generation of each megawatt hour of energy required for production of the REC, and Seller shall hold the REC in trust for Purchaser until Delivery. Passage of title to Energy occurs pursuant to the Agreement.

**R-3.3 Actions Required of Parties to Assure Delivery.**

**R-3.3.1 Provision of Generation Information; Required Actions.** No less than monthly, Seller shall provide Purchaser with a written statement setting forth for applicable periods the quantities of Seller’s generation of energy for production of the REC. Seller shall promptly take all actions and do all things necessary and appropriate to cause the designated Tracking System, if any, to transfer the REC to Purchaser, including promptly providing all required information and documents in the required forms, and paying any and all fees the Tracking System imposes on Seller. If the Confirmation provides for a designated Tracking System to expedite issuance of certificates (for example, forward transfer certificates in WREGIS), Seller shall promptly take all actions required to cause such expedition. If no Tracking System is

designated in the Confirmation, then upon creation of the REC Seller shall promptly deliver the Attestation to Purchaser.

**R-3.3.2 Failure to Issue REC.** Seller is responsible for transfer and issuance of RECs by the Tracking System; Purchaser's sole responsibilities are maintenance of an account with the Tracking System and Acceptance of conforming RECs pursuant to Section R-3.1.2. Without prejudice to the immediately preceding sentence, in the event a Tracking System designated in the Confirmation declines to issue an electronic credit or physical certificate to document the attempted transfer, Delivery, or Acceptance of a REC, each Party will provide the other Party with all documents, communications, and information sent to or received from the Tracking System that pertain thereto. The Parties will cooperate, and each Party will complete any uncompleted items for which it is responsible, each at its own expense. If following such efforts, and due to no failure of Seller to take all required actions, the Tracking System does not issue the electronic credit or physical certificate to document the attempted transfer, Delivery, or Acceptance of the REC, Seller may, upon Purchaser's agreement (which Purchaser may decline in its discretion), provide an Attestation to Purchaser to effect Delivery. The obligations under this Section R-3.3.2 shall not be construed to diminish the Seller or the Purchaser's respective rights and obligations under the Agreement, Service Schedule R, and the Confirmation.

**R-3.4 Conveyance and Transfer.** As of both Delivery and passage of title, Seller shall transfer and convey to Purchaser all right, title, and interest in and to the REC and all Environmental Attributes underlying the REC pursuant to the Confirmation, and the exclusive right to any and all Reporting Rights Seller may have in or to the REC and the Environmental Attributes, free and clear of any liens, security interests, or other encumbrances.

**R-4 Charges; Credit.** The charge shall be an amount equal to the Contract Price multiplied by the Delivered and Accepted quantity, without prejudice to the right to recover damages owed in accordance with Section R-9. The Parties may state any credit terms and conditions to which they agree in the Confirmation; Section 27 of the Agreement applies unless otherwise agreed.

**R-5 Governing Law; Change in Law.**

**R-5.1 Governing Law.** Section 24 of the Agreement applies except as follows. If an Applicable Program is designated in the Confirmation, all performance obligations pursuant to the REC Transaction concerning the creation, issuance, transfer, tracking and retirement of the REC shall be governed as follows:

**R-5.1.1** If the Applicable Program was created by the laws of a Governmental Authority, then by the laws, rules, regulations, orders, and judicial precedent of such Governmental Authority;

**R-5.1.2** If the Applicable Program was not created by the laws of a Governmental Authority, but is a voluntary program, then Section 24 of the Agreement applies without modification, and the Parties shall be bound contractually to comply with the standards and criteria of the voluntary Applicable Program.

## **R-5.2 Change in Law.**

**R-5.2.1 Applicability.** Section R-5.2 applies only to REC Transactions for which an Applicable Program is designated in the Confirmation. In a REC Transaction for which no Applicable Program is designated, Seller makes no representation or warranty concerning compliance with any particular Applicable Program and any such representation or warranty is expressly disclaimed.

### **R-5.2.2 Definitions.**

- (a) “Change in Law” means any addition or amendment, by a Governmental Authority, to any laws, rules, regulations, orders, or judicial precedent, that applies to an Applicable Program designated in the Confirmation, that is enacted or issued after the Effective Date and nullifies compliance of the REC with the Applicable Program. An addition or amendment that is enacted or issued before the Effective Date but effective on or after the Effective Date is not a Change in Law.
- (b) “Regulatorily Continuing” means a REC Transaction in which the REC and Environmental Attributes conform to the requirements of an Applicable Program designated in the Confirmation as such requirements exist on the Effective Date and the Transfer Date, including requirements modified or added by a Change in Law.
- (c) “Not Regulatorily Continuing” means a REC Transaction in which the REC and Environmental Attributes conform to the

requirements of an Applicable Program designated in the Confirmation as such requirements exist on the Effective Date only, and the REC and Environmental Attributes are not required to conform to requirements modified or added by a Change in Law.

**R-5.2.3 Default Designation as Regulatorily Continuing.** A REC Transaction as to which an Applicable Program is designated in the Confirmation shall be Regulatorily Continuing unless the Parties specify in the Confirmation that the REC Transaction is Not Regulatorily Continuing.

**R-5.2.4 Effect of Change In Law in Regulatorily Continuing REC Transaction.**

- (a) If a Change in Law occurs in a Regulatorily Continuing REC Transaction, Seller shall be obligated to make reasonable efforts to attain compliance with the designated Applicable Program, the costs of which shall not be required to exceed any cost cap specified in the Confirmation. If despite such efforts to attain compliance, including reasonable expenditures, Seller cannot obtain compliance and Purchaser refuses to accept Delivery of the REC due to the Change in Law, Seller shall not be liable for damages under Section R-9.
- (b) In the event Purchaser refuses to accept Delivery of the REC under Section 5.2.4(a), and Seller has Delivered energy to Purchaser in the REC Transaction, Purchaser shall not be



relieved of its obligation to pay for such energy, which payment shall be either at the price allocated to energy in the Confirmation, if any, and if no allocation is made, then at an amount equal to the Replacement Price.

**R-5.2.5 Amendment to Address Change In Law.** Nothing in this Section R-5.2 shall be construed to preclude the Parties from agreeing to amend the Confirmation to permit a Seller to perform its obligations in a REC Transaction as to which a Change in Law has occurred.

**R-6 Seller Representations and Warranties.** In each REC Transaction, Seller represents and warrants to Purchaser the following:

**R-6.1** As of both Delivery and passage of title, Seller has and conveys to Purchaser all right, title, interest in and to the REC and all Environmental Attributes underlying the REC as required by the Confirmation, and the exclusive right to any and all Reporting Rights Seller may have in or to the REC and Environmental Attributes, free and clear of any liens, security interests, or other encumbrances.

**R-6.2** As of both Delivery and passage of title, the REC and Environmental Attributes conform to the requirements of the REC Transaction.

**R-6.3** If the REC Transaction is Regulatorily Continuing (and an Applicable Program is designated in the Confirmation), subject to any limits upon Seller's obligations under Section R-5.2.4, as of both Delivery and passage of title, that the REC and Environmental Attributes conform to the requirements of the designated Applicable Program as such requirements exist on the Effective Date and the Transfer Date.

**R-6.4** If the REC Transaction is Not Regulatorily Continuing (and an Applicable Program is designated in the Confirmation), as of both Delivery and passage of title, that the REC and Environmental Attributes conform to the requirements of the designated Applicable Program as such requirements exist on the Effective Date.

**R-6.5** With respect to deliveries of Energy in REC Transactions for Firm Bundled REC, Contingent Resource Bundled REC, and Facility As-Run Bundled REC, that Seller has complied with the representations and warranties stated in Section 33 of the Agreement.

**SELLER DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.**

**R-7 Records; Confidentiality**

**R-7.1 Correction of Records.** If any statement, charge or computation concerning a REC Transaction is inaccurate, the Parties promptly shall make any adjustments to records as reasonably necessary to correct such inaccuracy, and make any adjustment of payments required to correspond to the corrected records, provided, that Purchaser shall not be required to pay a higher Contract Price or accept a lower Contract Quantity than the Confirmation requires.

**R-7.2 Exception to Confidentiality.** Purchaser has the right to disclose to any Governmental Authority having jurisdiction over Purchaser, or to any voluntary Applicable Program and the person or entity specified by the rules of procedures of the voluntary Applicable Program to perform certification, any information necessary to demonstrate Purchaser's compliance with an Applicable Program

(whether or not designated in the Confirmation); provided, however, that Purchaser shall use reasonable efforts to minimize the scope of any such disclosure and shall require, as may be feasible, that the recipient maintain the confidentiality of any documents or confidential information governed by the provisions of Section 30.1 of the Agreement, including, if permitted under applicable procedures of the Governmental Authority or such administrator, and subject to any applicable public records laws, seeking a protective order or similar protective mechanism in connection with any disclosure. With respect to a REC, Purchaser also has the right to disclose the following to any customer or affiliate of Purchaser that is participating in any voluntary or mandatory Applicable Program: the Renewable Energy Source, the location of any Renewable Energy Facility designated in the Confirmation, and monthly generation quantities of energy underlying the REC.

**R-8 Uncontrollable Force.** The following is substituted for the first sentence of the second paragraph of Section 10 of the Agreement:

The following shall not be considered “Uncontrollable Forces”: (i) Seller’s cost of producing or obtaining the REC or energy (or ability to sell the REC or energy at a price exceeding the Contract Price); (ii) the loss or failure of Seller’s supply, including materials or equipment; or (iii) Purchaser’s inability economically to use or resell the REC or energy.

The following is added at the end of the second paragraph of Section 10 of the Agreement:

If production of energy at a Renewable Energy Facility designated in the Confirmation is curtailed due to an Uncontrollable Force, any production during

the period of such curtailment shall be allocated as follows: first, among all purchasers of Firm RECs, Firm Bundled RECs, Resource Contingent RECs, Resource Contingent Bundled RECs, and energy purchased under Service Schedules B and C, proportionately to such purchasers' contract quantities under contracts with Seller during such period and subject to any priorities or shares stated in the Confirmation, and second, to all purchasers of Facility As-Run RECs, Facility As-Run Bundled RECs and energy purchased under Service Schedule A, proportionately to such purchasers' contract quantities under contracts with Seller during such period and subject to any priorities or shares stated in the Confirmation.

## **R-9 Remedies for Non-Performance.**

**R-9.1 Damages.** Section 21.3 of the Agreement, as modified in this Section 9, applies to REC Transactions.

### **R-9.1.1 Failure to Receive or Deliver in Unbundled REC Transactions.**

This Section R-9.1.1 applies to REC Transactions for Firm REC, Resource Contingent REC, and Facility As-Run REC. Section 21.3(a)(3) and (5) of the Agreement are inapplicable. Section 21.3(a)(1) of the Agreement is modified as follows:

If Purchaser refuses to Accept Delivery of RECs Delivered by Seller in accordance with the Confirmation, then Purchaser shall be liable to Seller for the product of (i) and (ii) where (i) is the amount, if any, by which the Contract Price exceeded the Resale Price and (ii) is the amount by which the quantity of

RECs Purchaser refused to Accept was less than the Contract Quantity, subject to any limitations stated in the Confirmation.

21.3(a)(2) is modified as follows:

If Seller fails to Deliver RECs to Purchaser in accordance with the Confirmation, then Seller shall be liable to Purchaser for: (a) the product of (i) and (ii) where (i) is the amount, if any, by which the Replacement Price exceeded the Contract Price and (ii) is the amount by which the quantity of RECs Seller Delivered was less than the Contract Quantity; plus (b) if an Applicable Program is specified, the amount, if any, of penalties and alternative compliance payments a Governmental Authority required Purchaser to pay due to Seller's non-performance, and which penalties or alternative compliance payments are no longer subject to judicial review, subject to any limitations stated in the Confirmation.

**R-9.1.2 Failure to Receive or Deliver in Bundled REC Transactions.**

(a) **Price Not Allocated between REC and Energy.** This Section R-9.1.2(a) applies to REC Transactions for Firm Bundled REC, Resource Contingent Bundled REC, and Facility As-Run Bundled REC, and in which the Confirmation does not allocate the Contract Price between the REC and Energy. Section 21.3(a)(1) of the Agreement is modified as follows:

If Purchaser refuses to Accept Delivery from Seller in accordance with the Confirmation, then Purchaser shall be

liable to Seller for: (a) the product of (i) and (ii) where (i) is the amount, if any, by which the Contract Price exceeded the Resale Price, and (ii) is the amount by which the quantity of RECs and Energy Purchaser refused to Accept was less than the Contract Quantity, plus (b) the amount of transmission charge(s), if any, for firm transmission service upstream of the delivery point, which Seller incurred to achieve the Resale Price, less the reduction, if any, in transmission charge(s) achieved as a result of the reduction in Purchaser's schedule or receipt of Energy (based on Seller's commercially reasonable efforts to achieve such reduction), subject to any limitations stated in the Confirmation. If the Purchaser refused to Accept Delivery of RECs but Accepted Delivery of Energy, then Purchaser shall pay Seller for such received Energy at the Resale Price of the Energy; if the Purchaser refused to Accept Delivery of Energy but Accepted Delivery of RECs, the Purchaser shall pay Seller for Accepted RECs at an amount equal to the Contract Price less the Resale Price of the Energy.

Section 21.3(a)(2) of the Agreement is modified as follows:

If Seller fails to Deliver to Purchaser in accordance with the Confirmation, then Seller shall be liable to the Purchaser for: (a) the product of (i) and (ii) where (i) is the amount, if

any, by which the Replacement Price exceeded the Contract Price, and (ii) is the amount by which the quantity of RECs and Energy Delivered was less than the Contract Quantity; plus (b) the amount of transmission charge(s), if any, for firm transmission service downstream of the delivery point, which Purchaser incurred to achieve the Replacement Price, less the reduction, if any, in transmission charge(s) achieved as a result of the reduction in Seller's schedule or delivery of Energy (based on Purchaser's commercially reasonable efforts to achieve such reduction), plus (c) if an Applicable Program is specified, the amount, if any, of penalties and alternative compliance payments a Governmental Authority required Purchaser to pay due to Seller's non-performance, and which penalties or alternative compliance payments are no longer subject to judicial review, subject to any limitations on such amounts stated in the Confirmation. In the event Seller Delivers Energy but not RECs, and regardless of Purchaser's receipt of Energy, Purchaser shall not be required to pay Seller for such Energy.

- (b) **Price Allocated between REC and Energy.** This Section R-9.1.2(b) applies to REC Transactions for Firm Bundled REC, Resource Contingent Bundled REC, and Facility As-Run

Bundled REC, in which the Confirmation sets forth an allocation of the Contract Price between the REC and energy.

- (i) If Purchaser refuses to Accept Delivery of RECs in accordance with the Confirmation, then Purchaser shall be liable to Seller as set forth in Section R-9.1.1.
- (ii) Subject to part (v) of this Section, if Seller fails to Deliver RECs in accordance with the Confirmation, then the Seller shall be liable to Purchaser as set forth in Section R-9.1.1.
- (iii) If Purchaser refuses to receive Delivery of Energy in accordance with the Confirmation, then Section 21.3(a) of the Agreement shall apply as set forth in the Agreement without modification by this Service Schedule R.
- (iv) If Seller fails to Deliver Energy in accordance with the Confirmation, then Section 21.3(a) of the Agreement shall apply as set forth in the Agreement without modification by this Service Schedule R.
- (v) In the event Seller Delivers Energy but fails to Deliver RECs, and regardless of Purchaser's receipt of Energy, Purchaser shall not be required to pay Seller for such Energy.

**R-10 Other Modifications of the Agreement for REC Transactions.**



**R-10.1 Revised Agreement Definitions.** For purposes of REC Transactions, the following revisions to definitions contained in Section 4 of the Agreement shall apply:

**R-10.1.1 Contract Quantity:** The amount of RECs and, if applicable, Energy, to be supplied for a transaction under the Agreement.

**R-10.1.2 Power Marketer:** An entity which buys, sells, and takes title to RECS, electric energy, transmission and/or other services from traditional utilities and other suppliers.

**R-10.1.3 Physically Settled Option:** Includes (i) a call option which is the right, but not the obligation, to buy an underlying REC and/or power product as defined under Service Schedule R according to the price and exercise terms set forth in the Confirmation; and (ii) a put option which is the right, but not the obligation, to sell an underlying REC or power product as defined under Service Schedule R according to the price and exercise terms set forth in the Confirmation.

**R-10.1.4 Replacement Price:** The price at which the Purchaser, acting in a commercially reasonable manner, effects a purchase of substitute REC(s), capacity and/or energy in place of the REC(s), capacity and/or energy not Delivered (for REC(s) and/or energy) or made available (for capacity only) by the Seller or, absent such a purchase, the market price for such quantity of REC(s), capacity and/or energy, as determined by the Purchaser in a commercially reasonable manner, for Energy at the delivery point specified in the Confirmation. Substitute

REC(s) must be similar in all material respects to the REC(s) specified in the Confirmation.

**R-10.1.5 Resale Price:** The price at which the Seller, acting in a commercially reasonable manner, effects a resale of the REC(s), capacity and/or energy not received by the Purchaser or, absent such a resale, the market price for such quantity of REC(s), capacity and/or energy, as determined by the Seller in a commercially reasonable manner, for Energy at the delivery point specified for the transaction in a Confirmation.

**R-10.2 Notices.** Section 12.2 of the Agreement is revised by inserting “RECs or” before the phrase “capacity and/or energy.”

**SERVICE SCHEDULE R**  
**ANNEX 1 - DEFINITIONS**

“Acceptance” has the meaning given in Sections R-3.1.2 or R-3.2.2, as applicable.

“All Attributes” has the meaning given in Section R-2.4.1.

“Applicable Program” means (a) a program adopted by a Governmental Authority that requires the sale, purchase, or use of energy generated or produced by a facility that converts renewable natural resources such as wind, sunlight, rain, tides, geothermal heat, hydro, or biomass into electric energy, including any Renewable Portfolio Standard (RPS) adopted by a Governmental Authority and all Governing Law that pertains thereto, or (b) a voluntary program for reporting, crediting or attributing RECs and all rules, standards and procedures adopted by the administering organization that pertain thereto.

“Attestation” means (a) the Seller’s written statement, certified as true and correct by an authorized officer of Seller, that the REC is Delivered and title to the REC has been transferred to the Purchaser, and that the Seller has taken all steps to effect transfer of the REC required by any Tracking System designated in the Confirmation, and (b) that satisfies the requirements of any Applicable Program designated in the Confirmation or is a generation information system record of ownership transfer. Annex 2 Exhibit 1 is a template for use of the Parties; an agreed form of Attestation should be included as a part of the Confirmation, and the agreed form will suffice as an Attestation regardless of whether or not it meets the criteria of this definition.

“Change in Law” has the meaning given in Section R-5.2.2(a).

“Deliver” has the meaning given in Sections R-3.1.1 or 3.2.1, as applicable.

“Effective Date” means the date both Parties have executed the Confirmation, or which the Parties otherwise specify in the Confirmation.

“Environmental Attribute” means the following, unless a Tracking System is designated in the Confirmation, and such Tracking System defines “Environmental Attribute,” in which case the Tracking System’s definition of “Environmental Attribute” shall control: a characteristic concerning or affecting the environment created by or resulting from the generation of electric energy by a Renewable Energy Source, and which capable of measurement, verification, or calculation. The term does not include tax credits or other tax benefits under any law or other direct third-party subsidies for generation of electric energy by a Renewable Energy Source. The term includes “non-energy attributes” under Oregon law and “non-power attributes” under Washington law. By way of example, the term may include the following: avoided emissions of CO<sub>2</sub> or other gases, or avoided water use (but not water or other rights or credits required under an Applicable Program to site and develop the Renewable Energy Facility itself).

“Facility As-Run REC” has the meaning given in Section R-2.3.5.

“Facility As-Run Bundled REC” has the meaning given in Section R-2.3.6(a).

“Firm Bundled REC” has the meaning given in Section R-2.3.2.

“Energy” in the case of a Firm Bundled REC refers to Firm Capacity/Energy Sale or Exchange Service under Service Schedule C as may be modified by Service Schedule R, in the case of a Resource Contingent Bundled REC refers to Unit Commitment Service under Service Schedule B as may be modified by Service Schedule R, and in the case of Facility As-Run Bundled REC refers to Economy Energy Service under Service Schedule A as may be modified by Service Schedule R.

“Firm REC” has the meaning given in Section R-2.3.1.

“Fuel Impediment” means the reduction or lack of wind or sunlight, excessive wind, or other insufficiency or excess of a Renewable Energy Source (excluding biomass), that causes a reduction or cessation of generation of electric energy by a Renewable Energy Facility.

“Forced Outage” means the removal from service availability of a generating unit, transmission line, or other facility for emergency reasons, or the condition in which the equipment is unavailable due to unanticipated failure (such unanticipated failure does not include a Fuel Impediment).

“Governing Law” has the meaning given in Section 24 of the Agreement as that Section may be modified by Section R-5.1.

“Governmental Authority” means the United States, a State thereof, any political subdivision or governmental body thereof, including any department or agency, with jurisdiction over a Party or an Applicable Program.

“Not Regulatorily Continuing” has the meaning given in Section R-5.2.2(b).

“Program Attributes” has the meaning given in Section R-2.4.2.

“Regulatorily Continuing” has the meaning given in Section R-5.2.2(a).

“REC” refers to a renewable energy certificate and means a credit or certificate representing Environmental Attributes created by or resulting from the generation of one (1) megawatt hour of electric energy by a Renewable Energy Source, subject to the terms and conditions stated in the Confirmation.

“REC Product” has the meaning given in Section R-2.2.

“REC Transaction” has the meaning given in Section R-2.1.

“Resource Contingent REC” has the meaning given in Section R-2.3.3.

“Resource Contingent Bundled REC” has the meaning given in Section R-2.3.4(a).

“Renewable Energy Facility” means an electric generation unit or other facility or installation capable of producing or emitting electric energy using a Renewable Energy Source.

“Renewable Energy Source” means (a) a resource that is recognized as a renewable energy source under an Applicable Program designated in the Confirmation, or (b) if no Applicable Program is designated in the Confirmation, a natural resource from or through which electric energy can be generated, including wind, solar, geothermal, landfill gas, wave, tidal, thermal ocean technologies, and hydroelectric power, and excluding fossil carbon-based, non-renewable, or radioactive fuel.

“Reporting Rights” means the right to report and register the exclusive ownership of the REC or Environmental Attributes under Governing Law or any other laws, regulations, orders or judicial precedents of the government of the United States of America or any department or agency thereof, or any State or political subdivision thereof, including mandatory and voluntary reporting, and including reporting under section 1605(b) of the Energy Policy Act of 1992 and any foreign or international emissions trading or reporting program.

“Scheduled Maintenance” means an outage or partial outage scheduled to perform the necessary normal maintenance on a generating unit, transmission line, or other facility to preserve the reliability of the unit or overall system reliability, including scheduled outages for such maintenance.

“Tracking System” means the entity, if any, the Parties designated in the Confirmation that will perform REC tracking and accounting functions, including receiving evidence of generation of the REC and crediting the resulting REC to the Purchaser’s account.

“Transfer Date” means the date specified in the Confirmation, no later than which Seller must make Delivery as defined in Sections R-3.1.1 or R-3.2.1, as applicable.

“Vintage” means the period in which the REC was or will be created.

**SERVICE SCHEDULE R ANNEX 2**

**FORM OF  
REC TRANSACTION CONFIRMATION**

**IDENTIFICATION OF PARTIES**

Name of Seller:

\_\_\_\_\_

Name of Purchaser:

\_\_\_\_\_

Seller Information:

\_\_\_\_\_

Purchaser Information:

\_\_\_\_\_

Contact

Contact

Tel (O): \_\_\_\_\_

Tel (O): \_\_\_\_\_

Tel (Cell): \_\_\_\_\_

Tel (Cell): \_\_\_\_\_

E-mail: \_\_\_\_\_

E-mail: \_\_\_\_\_

Fax: \_\_\_\_\_

Fax: \_\_\_\_\_

Contact information is subject to change by notice.

**ADDRESSES FOR FORMAL NOTICES:**

Purchaser:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Seller

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**INCORPORATED DOCUMENTATION** (any “long form” or other bilateral agreements between the Parties applicable to this Confirmation and incorporated herein)

\_\_\_\_\_

**REC TRANSACTION TERMS**

REC Product (e.g., Firm REC, Firm Bundled REC, etc.) (see Section R-2.3):

\_\_\_\_\_

Vintage of REC already created or period of generation for REC to be created (mm/yyyy)

---

Contract Quantity (stated either on a megawatt hour basis or percentage of output of a designated Renewable Energy Facility)

---

Transfer Date (generally the Effective Date of this Confirmation for REC that already exists, and future date for REC to be generated after Effective Date)

---

Contract Price:

---

Allocation, if agreed:

REC:

---

Energy:

---

Environmental Attributes (Check One)

All Attributes (this designation is effective only if a Renewable Energy Source or Renewable Energy Facility is designated below)

Program Attributes (this designation is effective only if an Applicable Program is identified below) (Note: WREGIS and possibly other Tracking Systems will not recognize a Program Attributes REC, or may treat it as an All Attributes REC)

Applicable Program (required for Program Attributes; not required for All Attributes, but designation establishes the minimum Environmental Attributes required by a designated Applicable Program). Also required for recovery of penalties and alternative compliance payments (Section R-9.1). Designation should include detailed information, including any applicable legal citations, to assure adequate description of the program.

---

Designation of Renewable Energy Source or Renewable Energy Facility (required for All Attributes).

Renewable Energy Source: \_\_\_\_\_

Renewable Energy Facility

Name: \_\_\_\_\_

Location: \_\_\_\_\_

Generation Information System number: \_\_\_\_\_

Tracking System number: \_\_\_\_\_

Fuel (wind, solar, etc.): \_\_\_\_\_

Change in Law Provisions (Check One)

Regulatorily Continuing (Section R-5.2.2(b), requiring that Seller make commercial reasonable efforts to obtain compliance with Changes in Law in the designated Applicable Program. If checked, state any agreed maximum costs of such efforts (if no maximum is stated, then no maximum applies):

\$ \_\_\_\_\_

Not Regulatorily Continuing (Section R-5.2.2(c)).

Tracking System(s) if any: (if none specified, then Delivery occurs by Attestation and not by Tracking System crediting)

Damages. Damages include reimbursement for penalties and alternative compliance payments, subject to any agreed cap on this damages component, which can be zero (Section R-9.1):

\$ \_\_\_\_\_

Any agreements concerning forward certificates in WREGIS or other Tracking System Expedition ) (Section R-3.3.1):

\_\_\_\_\_

**TERMS APPLICABLE TO ENERGY IF INCLUDED IN REC PRODUCT**

Period (Schedule) of Delivery: From \_\_\\_\_\\_\_ To \_\_\\_\_\\_\_

Schedule (Days and Hours): \_\_\_\_\_

Delivery Rate: \_\_\_\_\_

Delivery Point(s): \_\_\_\_\_

Contract Quantity (specify all details): \_\_\_\_\_



Transmission Path for the Transaction (If Applicable): \_\_\_\_\_

**EFFECTIVE DATE AND OTHER PROVISIONS**

Effective Date (no earlier than mutual execution of this Confirmation)

\_\_\_\_\_

Other provisions: \_\_\_\_\_ [generally  
stated in attachment to the Confirmation]

The Parties agree to the REC Transaction set forth herein as of the Effective Date

Seller

Purchaser

Signed: \_\_\_\_\_

Signed: \_\_\_\_\_

Name: \_\_\_\_\_

Name: \_\_\_\_\_

Date: \_\_\_\_\_ Date: \_\_\_\_\_

**ANNEX 2, Exhibit 1**  
**Form of Attestation To Be Included As Exhibit To Confirmation**

**Attestation Of [Seller] (“REC Generator”)**  
**Of Sale, Transfer, and Delivery Of Renewable Energy Certificate to**  
**[Purchaser] “Purchaser”**

**Party and Contact Information:**

[Insert names and addresses of Parties, address, and contact information]

**Attestation:**

I, [name of attesting officer], the [title] of Seller, declare and certify that Seller sold and delivered

Elect one:

Environmental Attributes Only

Bundled with electricity

to Purchaser, and further, that

1. Was generated by the Renewable Energy Facility (“REF”) designated below and sold, transferred and delivered, subject to receipt of payment, to Purchaser.
2. Is associated with electricity delivered into the [insert delivery area] in compliance with applicable energy delivery rules.

REF Generator Name and Number	Technology Type	Fuel Type (Renewable Energy Source)	Generation Period (mm/yy)	Generator First Day of Operation

The above statements are true and correct to the best of my knowledge, and based on my duly diligent inquiry. This Attestation may serve as a Bill of Sale to document, in accordance with the Confirmation, the transfer from Generator to Purchaser of all of Seller’s right, title and interest in and to the REC and environmental attributes it represents, as set forth above.

Either Party may disclose this Attestation to others, including a Tracking System, public utility commissions and other regulatory bodies having jurisdiction over Purchaser, and administrators of voluntary green energy programs, to substantiate and verify the accuracy of the Parties’ compliance, advertising and public claims.

Signature:

\_\_\_\_\_

Date \_\_\_\_\_

Print Name: \_\_\_\_\_

**SCHEDULE Q**  
**FERC ACCEPTED SELLER-SPECIFIC COST-BASED RATE SCHEDULES**

Note: Each rate schedule included in this Schedule Q is applicable solely to the Member which submitted that rate schedule to FERC, and not to any other Member.

**INDEX**

<b>Name of Member</b>	<b>FERC Order Re Underlying Rate Schedule</b>
Arizona Public Service Company	Letter Order, Docket No. ER16-1877-000 (July 15, 2016)
Nevada Power Company	Letter Order, Docket No. ER11-1832-000 (Nov. 23, 2010)
PacifiCorp	Letter Order, Docket No. ER16-1964-000 (Aug. 16, 2016)
Public Service Company of Colorado	Letter Order, Docket No. ER15-678-000 (Feb. 4, 2015)
Sierra Pacific Power Company	Letter Order, Docket No. ER14-1420-000 (Apr. 15, 2014)
Southwestern Public Service Company	Letter Order, Docket No. ER08-857-001 (Aug. 28, 2008)
Westar Energy, Inc.	Letter Order, Docket No. ER11-3233-000 (May 26, 2011)

## WSPP AGREEMENT SCHEDULE Q FOR ARIZONA PUBLIC SERVICE COMPANY

### Determination of Ceiling Rates Applicable to Sales Made by Arizona Public Service Company Under the WSPP Agreement

#### I. DEFINITIONS

The following terms shall have the specified meaning when used in any Transaction between Arizona Public Service Company (“APS”) and any Customer pursuant to this Cost-Based Tariff (“Tariff”):

1. **APS**: Arizona Public Service Company or any successor-in-interest to Arizona Public Service Company.
2. **Commission**: The Federal Energy Regulatory Commission, or any successor federal agency having jurisdiction over this tariff.
3. **Customer**: Any entity entering into a Transaction with APS under this Tariff.
4. **System Incremental Cost**: (“SIC”) System Incremental Cost means, with respect to a Transaction, all reasonably forecasted incremental generation, power purchase, and other, related costs that APS would not otherwise incur if such Transaction is not entered into. System Incremental Cost shall include, but not be limited to, costs associated with fuel, labor, variable operation and maintenance, start-up, shut-down, fuel handling, regulatory commission charges, emission allowance and other environmental compliance costs, transmission losses, wheeling charges, any applicable taxes or assessments based on the revenues received or quantities sold under the Transaction, and with respect to capacity and energy purchased from a third party, the total forecasted amount that would be paid for that capacity and energy by APS. For purchases of energy and capacity by APS, System Incremental Cost will also include, but not be limited to, regulatory commission charges, emission allowances, transmission losses, wheeling charges and taxes.
5. **Tariff**: This Cost-Based Tariff, as it may be amended and/or superseded from time to time.
6. **Transaction**: An individual transaction scheduled pursuant to this Tariff.
7. **Party**: References to a Party shall mean either APS or the Customer, who collectively shall be referred to as “Parties.”

#### II. AVAILABILITY

Service under this Tariff shall be available to Customers for Transactions that have a duration as agreed to by the Parties under the Service Agreement.

### III. SALES OF ELECTRIC CAPACITY AND/OR ENERGY

APS and Customers may enter into Transactions under this Tariff from time-to-time. All such Transactions shall be voluntary on the part of APS and the Customer(s). APS at its sole discretion will determine the amounts of and times that electric capacity and/or energy is to be made available under this Tariff prior to entering into a Transaction.

### IV. RATES

1. A Transaction will be priced at rates established by agreement between Seller and Buyer, provided that the sum of all charges with respect to each Transaction may be up to but shall not exceed the sum of:
  - a) A demand charge, equal to, as appropriate:
    - i. \$9,233 /MW/month;
    - ii. \$2,131 /MW/week;
    - iii. \$426 /MW/day, provided the total demand charge in any week, pursuant to a sale of daily electric power, shall not exceed the weekly rate times the highest amount in megawatts of purchased electric power in any day during such week; or
    - iv. \$26.63 /MW/hour, provided that the total demand charge in any day, pursuant to a sale of hourly electric power, shall not exceed the daily rate times the highest amount in megawatts of purchased electric power in any hour during such day, and the total demand charges in any week, pursuant to a sale of hourly or daily electric power, shall not exceed the weekly rate times the highest amount in megawatts of purchased electric power in any such week; and
  - b) The System Incremental Cost, forecasted at the time the Transaction is executed, plus 10% of the forecasted System Incremental Cost; and
  - c) The cost of transmission service and any ancillary services purchased by APS and resold to Customer, as known or forecasted at the time the Transaction is executed.

### V. EXPANSION OF FACILITIES

APS will have no obligation under this Tariff to plan its system or modify its facilities in order to provide service hereunder.

### VI. OTHER TERMS AND CONDITIONS

Except to the extent otherwise specifically agreed to by the Parties, all Transactions under APS's Schedule Q shall be governed by the terms and conditions set forth in the WSPP Agreement.

**COST-BASED RATE SCHEDULE  
FOR  
PACIFICORP**

Determination of Ceiling Rates Applicable to Cost-Based Sales Made by  
PacifiCorp

1. The following rates shall be applicable to any cost-based sale of power and/or energy made by PacifiCorp (1) pursuant to the applicable terms and conditions of the WSPP Agreement, including under Service Schedule A (Economy Energy Service), Service Schedule B (Unit Commitment Service), and Service Schedule C (Firm Capacity/Energy Sale or Exchange Service), and (2) for a term of less than one year.

2. The rates for any cost-based power and/or energy sale made by PacifiCorp pursuant to the applicable terms and conditions of the WSPP Agreement from PacifiCorp's generating resources shall not exceed the following:

(i) Maximum Demand Charge:

The Maximum Demand Charge shall be capped using the following methodology:

Units Most Likely To Participate Methodology

Monthly Up to \$11,317/MW

Weekly Up to \$2,612/MW

Daily Up to \$522/MW, provided, however, that the Daily rate of \$522/MW shall not exceed the product of the number of kilowatts sold for a week multiplied by the maximum weekly demand charge of \$2,612/MW.

Hourly Up to \$32.64/MW, provided, however, that the hourly rate of \$32.64/MW shall not exceed the product of the number of kilowatts sold for a day multiplied by the maximum daily demand charge of \$522/MW, and also not exceed the product of the number of kilowatts sold for a week multiplied by the maximum weekly demand charge of \$2,612/MW.

(ii) Energy Charge of 100% of SIC, plus up to 10% of SIC; and

(iii) All charges incurred for transmission service, ancillary services, and transmission losses.

3. If PacifiCorp enters into a purchased power transaction specifically for the purpose of reselling such power hereunder, the rates shall not exceed the sum of the following:

- (i) PacifiCorp's out-of-pocket costs of purchasing such capacity and/or energy, including all related charges incurred for transmission service, ancillary services, transmission losses and any applicable taxes or other similar governmental impositions; and
  - (ii) \$1.00 per megawatt-hour multiplied by the total megawatt-hours scheduled.
- 4. System Incremental Costs ("SIC") means all reasonably forecasted costs of such power and/or energy and which otherwise would not have been incurred by PacifiCorp including, but not limited to, costs associated with fuel, labor, variable operation and maintenance, start-up, shut-down, fuel handling, taxes or other similar governmental impositions, regulatory commission charges, emission allowances and other environmental compliance costs.
- 5. Purchasers in cost-based transactions shall also be responsible for any taxes, purchased power costs, and for any other costs incurred by PacifiCorp in fulfilling its obligations for the provision of power and/or energy under the WSPP Agreement, which cost would otherwise not have been incurred, had such service not been provided.

## WSPP AGREEMENT SCHEDULE Q FOR NEVADA POWER COMPANY

### Determination of Ceiling Rates Applicable to Cost-Based Sales Made by Nevada Power Company

1. The following rates shall be applicable to any cost-based sale of power and/or energy made by Nevada Power Company, d/b/a NV Energy (“Nevada Power”) (1) pursuant to the applicable terms and conditions of the WSPP Agreement, including under Service Schedule A (Economy Energy Service), Service Schedule B (Unit Commitment Service), and Service Schedule C (Firm Capacity/Energy Sale or Exchange Service), (2) at a delivery point located within the Nevada Power balancing authority area, and (3) for a term of less than one year.
2. The rates for any cost-based power and/or energy sale made by Nevada Power pursuant to the applicable terms and conditions of the WSPP Agreement from Nevada Power’s generating resources shall not exceed the following:

(i) Maximum Demand Charge:

The Maximum Demand Charge shall be capped using the following methodology:

Units Most Likely To Participate Methodology

Monthly	Up to \$8,390/MW
Weekly	Up to \$1,940/MW
Daily	Up to \$390/MW, provided, however, that the Daily rate of \$390/MW shall not exceed the product of the number of kilowatts sold for a week multiplied by the maximum weekly demand charge of \$1,940/MW.
Hourly	Up to \$24.40/MW, provided, however, that the hourly rate of \$24.40/MW shall not exceed the product of the number of kilowatts sold for a day multiplied by the maximum daily demand charge of \$390/MW, and also not exceed the product of the number of kilowatts sold for a week multiplied by the maximum weekly demand charge of \$1,940/MW.

- (ii) Energy Charge of 100% of SIC, plus up to 10% of SIC; and
  - (iii) All charges incurred for transmission service, ancillary services, and transmission losses.
3. If Nevada Power enters into a purchased power transaction specifically for the purpose of reselling such power hereunder, the rates shall not exceed the sum of the following:
    - (i) Nevada Power’s out-of-pocket costs of purchasing such capacity and/or energy, including all related charges incurred for transmission service, ancillary services, transmission losses and any applicable taxes or other similar governmental impositions; and
    - (ii) \$1.00 per megawatt-hour multiplied by the total megawatt-hours scheduled.



4. System Incremental Costs (“SIC”) means all reasonably forecasted costs of such power and/or energy and which otherwise would not have been incurred by Nevada Power including, but not limited to, costs associated with fuel, labor, variable operation and maintenance, start-up, shut-down, fuel handling, taxes or other similar governmental impositions, regulatory commission charges, emission allowances and other environmental compliance costs.
5. Purchasers in cost-based transactions shall also be responsible for any taxes, purchased power costs, and for any other costs incurred by Nevada Power Company in fulfilling its obligations for the provision of power and/or energy under the WSPP Agreement, which cost would otherwise not have been incurred, had such service not been provided.

## WSPP AGREEMENT SCHEDULE Q FOR PUBLIC SERVICE COMPANY OF COLORADO

### Determination of Ceiling Rates Applicable to Sales Made by Public Service Company of Colorado under the WSPP Agreement

1. The following rates shall be applicable to any cost-based sale of power and/or energy made by Public Service Company of Colorado (“Public Service”) (1) pursuant to the WSPP Agreement, including under Service Schedule A (Economy Energy Service), Service Schedule B (Unit Commitment Service), and Service Schedule C (Firm Capacity/Energy Sale or Exchange Service) and (2) at a delivery point located within the Public Service balancing authority area.
2. The rates for any cost-based power and/or energy sale made pursuant to the WSPP Agreement from certain Public Service generation resources shall not exceed the following:

#### Maximum Demand Charge:

The Maximum Demand Charge shall be capped at either of the following methodologies:

#### Units Most Likely to Participate Methodology

Annual	\$123.73/kW
Monthly	\$10.62/kW
Weekly	\$2.45/kW
Daily	\$0.49/kW, provided, however, that the Daily rate of \$0.49/kW shall not exceed the product of the number of kilowatts sold for a week multiplied by the maximum weekly demand charge of \$2.45/kW.
Hourly	\$0.0306/kW, provided, however, that the hourly rate of \$0.0306/kW shall not exceed the product of the number of kilowatts sold for a day multiplied by the maximum daily demand charge of \$0.49/kW, and also not exceed the product of the number of kilowatts sold for a week multiplied by the maximum weekly demand charge of \$2.45/kW.

#### Unit Revenue Constraint Methodology

Annual	\$265.72/kW
Monthly	\$22.14/kW
Weekly	\$5.11/kW
Daily	\$1.02/kW, provided, however, that the Daily rate of \$1.02/kW shall not exceed the product of the number of kilowatts sold for a week multiplied by the maximum weekly demand charge of \$5.11/kW.

Hourly \$0.0639/kW, provided, however, that the hourly rate of \$0.0639/kW shall not exceed the product of the number of kilowatts sold for a day multiplied by the maximum daily demand charge of 1.02/kW, and also not exceed the product of the number of kilowatts sold for a week multiplied by the maximum weekly demand charge of \$5.11/kW.

Note: The total amount of Power available for cost-based sales by Public Service based on the costs of Comanche 3 under the WSPP Agreement and under other Public Service tariffs and arrangements, for which the agreed upon demand charge is determined based on Comanche 3, is limited to 500 MWs on an hourly basis.

Plus:

Energy Charge:

- (a) no less than 100% of Public Service's System Incremental Costs (SIC); plus
- (b) up to 10% of SIC, provided, however, that whenever the SIC for an hour is based on purchased power, the 10% mark up shall be limited to one mill/kWh.

Note: The total charges for any sale by Public Service using the Maximum Demand Charge as determined based on the Unit Revenue Constraint Methodology shall not exceed (1) the product of the requested demand (kW) multiplied by the applicable Maximum Demand Charge using the Unit Revenue Constraint Methodology as specified above, plus the variable costs of Comanche 3 (based on the most recent historical month where Comanche 3 was operational at least 80 percent of the time), and (2) be lower than a floor equal to 100% of Public Service's System Incremental Cost.

3. When a cost-based sale of power and/or energy made by Public Service under the WSPP Agreement is conditioned upon Public Service acquiring purchased power, Purchaser shall pay the following amounts to Public Service for power and energy:
  - (a) Public Service's actual purchased power costs; plus
  - (b) a one mill adder for transactions of less than one year in duration.
4. Purchasers in cost-based transactions shall also be responsible for any taxes, purchased power costs, and for any other costs incurred by Public Service in fulfilling its obligations for the provision of power and/or energy under the WSPP Agreement, which otherwise would not have been incurred, had such service not been provided.
5. For purposes of this Schedule Q, "Purchased Power" means the Power and Energy

purchased from a third party by Public Service and shall consist of the total amount paid therefor by Public Service associated with such purchase, plus any cost which otherwise would not have been incurred, including, but not limited to, regulatory commission charges, transmission losses, third-party transmission charges, and taxes, fees or assessments related to such transactions. Tax expenses shall include the expenses that are incurred as taxes either in connection with the sale or production of such Power and Energy. The term Purchased Power shall not apply to long-term purchases that are secured to supply Public Service's obligation load requirements as a system resource or to meet other regulatory requirements.

6. For purposes of this Schedule Q, System Incremental Costs ("SIC")<sup>1</sup> shall be determined as follows:

SIC are any costs forecasted to be incurred by Public Service solely by reason of its provision of an incremental amount of coordination-type energy to supply to another company, including but not limited to, costs for fuel, reactant, labor, operation, maintenance, start-up, fuel handling, taxes, emission allowances, and services provided by RTOs, ISOs, or other transmission providers such as transmission and ancillary services and losses. Such costs may also include costs paid to third parties where Public Service has an existing contractual entitlement to purchase energy.

- For intraday (real-time) transactions, incremental cost is determined through a review of hourly system characteristics.
- For non-intraday transactions, incremental cost is determined by using a resource optimization model such as, but not limited to ProSym or GenTrader.

The forecasted incremental cost represents the relative increase in total variable cost, in comparison to the previously determined base variable cost. Public Service forecasts incremental costs on a monthly, daily and hourly basis in order to evaluate whether it would be economic to engage in a wholesale sale of coordination energy.<sup>2</sup> In order for Public Service to transact, and sell power to another entity, the purchaser must be willing to pay no less than the forecasted incremental cost for the period during which the energy is sold. It is necessary to use forecasted costs because transactions are entered into in the market in advance. The forecast incremental costs for Public Service utilize its unique portfolio resources, applicable fuel costs and generation characteristics.

Monthly forecasted incremental variable costs are developed utilizing an optimization and unit commitment model. Generation characteristics such as forecasted fuel prices, effective heat rates, system penalty factors, start-up costs, unit parameters (*e.g.*, minimum run time, dispatch minimum, dispatch maximum), variable O&M, and tolling costs are utilized in the model to establish the base cost to serve a forecasted amount of obligation (load and the net of applicable firm purchase and sales transactions). Planned and forced outages are also considered in the model. Additional obligations are added to the model (consistent with blocks traded in the market), and the optimized costs are

returned. The difference in costs between the first and second run, *i.e.*, with and without an incremental transaction or load addition, will represent the incremental cost to serve the additional obligation. The forecasted incremental cost to serve the additional obligation will establish the minimum price required in order to engage in a sale of similar energy volume.

Daily forecasted incremental costs are developed utilizing a unit commitment and optimization program. The best available generation characteristics are utilized in the model to forecast the base cost to serve the next-day obligation. Additional obligations are applied and system costs evaluated to establish the forecasted cost to serve a potential incremental sale.

On an hourly basis, the system operator forecasts the incremental cost to serve an additional obligation by evaluating current and short-term forecast system conditions and the resources that are not previously allocated to meet established obligations. If additional portfolio resources are available (not allocated for native load requirements), the system operator will evaluate the comprehensive cost to produce the quantity of energy needed for an incremental sale.

If the Parties to a transaction under this WSPP Agreement expressly agree in a transaction agreement, incremental costs may be determined in the same manner as specified above, but on an after-the-fact, actual basis.

Note 1: The Commission previously accepted this incremental rate methodology in *Xcel Energy Services, Inc., et al.*, 117 FERC ¶ 61,180, at PP 45-49 (2006).

Note 2: The Commission has found this approach to be acceptable. *See, e.g., Western Systems Power Pool*, 55 FERC ¶ 61,495, at 62,718 (1991) (noting that incremental cost “may be forecasted hourly, weekly, or monthly”).

## WSPP AGREEMENT SCHEDULE Q FOR SIERRA PACIFIC POWER COMPANY

### Determination of Ceiling Rates Applicable to Cost-Based Sales Made by Sierra Pacific Power Company

1. The following rates shall be applicable to any cost-based sale of power and/or energy made by Sierra Pacific Power Company, d/b/a NV Energy (“Sierra”) (1) pursuant to the applicable terms and conditions of the WSPP Agreement, including under Service Schedule A (Economy Energy Service), Service Schedule B (Unit Commitment Service), and Service Schedule C (Firm Capacity/Energy Sale or Exchange Service), (2) at a delivery point located within the Nevada Power Company balancing authority area (“NEVP”), and (3) for a term of less than one year.
2. The rates for any cost-based power and/or energy sale made by Sierra pursuant to the applicable terms and conditions of the WSPP Agreement from Sierra’s generating resources shall not exceed the following:

(i) Maximum Demand Charge:

The Maximum Demand Charge shall be capped using the following methodology:

Units Most Likely To Participate Methodology

Monthly	Up to \$9,810/MW
Weekly	Up to \$2,260/MW
Daily	Up to \$450/MW, provided, however, that the Daily rate of \$450/MW shall not exceed the product of the number of kilowatts sold for a week multiplied by the maximum weekly demand charge of \$2,260/MW.
Hourly	Up to \$28.10/MW, provided, however, that the hourly rate of \$28.10/MW shall not exceed the product of the number of kilowatts sold for a day multiplied by the maximum daily demand charge of \$450/MW, and also not exceed the product of the number of kilowatts sold for a week multiplied by the maximum weekly demand charge of \$2,260/MW.

- (ii) Energy Charge of 100% of SIC, plus up to 10% of SIC; and
  - (iii) All charges incurred for transmission service, ancillary services, and transmission losses.
3. If Sierra enters into purchased power transaction specifically for the purpose of reselling such power hereunder, the rates shall not exceed the sum of the following:
    - (i) Sierra’s out-of-pocket costs of purchasing such capacity and/or energy, including all related charges incurred for transmission service, ancillary services, transmission losses and any applicable taxes or other similar governmental

impositions; and

(ii) \$1.00 per megawatt-hour multiplied by the total megawatt-hours scheduled.

4. System Incremental Costs (“SIC”) means all reasonably forecasted costs of such power and/or energy and which otherwise would not have been incurred by Sierra including, but not limited to, costs associated with fuel, labor, variable operation and maintenance, start-up, shut-down, fuel handling, taxes or other similar governmental impositions, regulatory commission charges, emission allowances and other environmental compliance costs.
5. Purchasers in cost-based transactions shall also be responsible for any taxes, purchased power costs, and for any other costs incurred by Nevada Power Company in fulfilling its obligations for the provision of power and/or energy under the WSPP Agreement, which cost would otherwise not have been incurred, had such service not been provided.

**WSPP AGREEMENT SCHEDULE Q FOR SOUTHWESTERN PUBLIC SERVICE  
COMPANY**

**Determination of Ceiling Rates Applicable to Sales Made by Southwestern Public Service  
Company under the WSPP Agreement**

1. The following rates shall be applicable to any cost-based sale of power and/or energy made by Southwestern Public Service Company (“SPS”) (1) pursuant to the WSPP Agreement, including under Service Schedule A (Economy Energy Service), Service Schedule B (Unit Commitment Service), and Service Schedule C (Firm Capacity/Energy Sale or Exchange Service and (2) at a delivery point located within the SPS balancing authority area.
2. The rates for any cost-based power and/or energy sale made pursuant to the WSPP Agreement from SPS generation resources shall not exceed the following:

Maximum Demand Charge:

Monthly	\$ 7.56/kW
Weekly	\$ 1.745/kW
Daily (On-peak)	\$ 0.349/kW, provided, however, that the Total Weekly charges for a customer paying the Daily rate of \$0.349/kW (on-peak) or \$0.249 (off-peak) shall not exceed the product of the number of kilowatts sold for a week multiplied by the maximum Weekly demand charge of \$1.745/kW.
Daily (Off-peak)	\$ 0.249/kW
Hourly	\$ 21.813/MW, provided, however, that the Total Daily charges for a customer paying the Hourly rate of \$21.813/MW shall not exceed the product of the number of kilowatts sold for a day multiplied by the maximum Daily (on-peak) demand charge, and total Weekly charges for such a customer shall not exceed the product of the number of kilowatts sold for a week multiplied by the maximum Weekly demand charge of \$1.745/kW.

plus

Energy Charge:

- (a) no less than 100% of SPS’s System Incremental Costs (SIC); plus
- (b) up to 10% of SIC, provided, however, that whenever the SIC for an hour is based on purchased power, the 10% mark up shall be limited to one mill/kWh.

Note A: The total charges for any cost-based sale under the WSPP Agreement shall not exceed the product of the requested demand (kW) multiplied by the applicable Maximum Demand Charge in this Section 1, plus the variable costs of Lea Power



Partners (based on the second previous month's cost data), and not withstanding the foregoing, a floor equal to 100% of SPS's System Incremental Cost.

Note B: The total amount of Power available for cost-based sales by SPS under the WSPP Agreement and under other SPS tariffs and agreements for which the agreed upon demand charge is determined based on Lea Power Partners is limited to 600 MWs on an hourly basis.

3. When a cost-based sale of power and/or energy made by SPS under the WSPP Agreement is conditioned upon SPS acquiring Purchased Power, Purchaser shall pay the following amounts to SPS for power and energy:
  - (a) SPS's actual Purchased Power costs; plus
  - (b) a one mill adder for transactions of less than one year in duration.
4. Purchasers in cost-based transactions shall also be responsible for any taxes, purchased power costs, and for any other costs incurred by SPS in fulfilling its obligations for the provision of power and/or energy under the WSPP Agreement, which otherwise would not have been incurred, had such service not been provided.
5. For purposes of the WSPP Agreement, System Incremental Costs ("SIC") shall be determined as follows:

SIC are any costs forecasted to be incurred by SPS solely by reason of its provision of an incremental amount of coordination-type energy to supply to another company, including but not limited to costs for fuel, reactant, labor, operation, maintenance, start-up, fuel handling, taxes, emission allowances, and services provided by RTOs, ISOs, or other transmission providers such as transmission and ancillary services and losses. Such costs may also include costs paid to third parties where the SPS has an existing contractual entitlement to purchase energy.

- For intraday (real-time) transactions, incremental cost is determined through a review of hourly system characteristics.
- For non-intraday transactions, incremental cost is determined by using a resource optimization model such as, but not limited to ProSym, Cougar or GenTrader.

The forecasted incremental cost represents the relative increase in total variable cost, in comparison to the previously determined base variable cost. SPS forecasts incremental costs on a monthly, daily and hourly basis in order to evaluate whether it would be economic to engage in a wholesale sale of energy.<sup>2</sup> In order for SPS to transact, and sell power to another entity, the purchaser must be willing to pay no less than the forecasted incremental cost for the period during which the energy is sold. It is necessary to use forecasted costs because

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<sup>2</sup> The Commission has found this approach to be acceptable. *See, e.g., Western Systems Power Pool*, 55 FERC ¶ 61,495 at 62,718 (1991) (noting that incremental cost "may be forecasted hourly, weekly, or monthly").

transactions are entered into in the market in advance. The forecast incremental costs for SPS utilize its unique portfolio resources, applicable fuel costs and generation characteristics.

Monthly forecasted incremental variable costs are developed utilizing an optimization and unit commitment model. Generation characteristics such as forecasted fuel prices, effective heat rates, system penalty factors, start-up costs, unit parameters (e.g., minimum run time, dispatch minimum, dispatch maximum), variable O&M, and tolling costs are utilized in the model to establish the base cost to serve a forecasted amount of obligation (load and the net of applicable firm purchase and sales transactions). Planned and forced outages are also considered in the model. Additional obligations are added to the model (consistent with blocks traded in the market), and the optimized costs are returned. The difference in costs between the first and second run, i.e., with and without an incremental transaction or load addition, will represent the incremental cost to serve the additional obligation. The forecasted incremental cost to serve the additional obligation will establish the minimum price required in order to engage in a sale of similar energy volume.

Daily forecasted incremental costs are developed utilizing a unit commitment and optimization program. The best available generation characteristics are utilized in the model to forecast the base cost to serve the next-day obligation. Additional obligations are applied and system costs evaluated to establish the forecasted cost to serve a potential incremental sale.

On an hourly basis, the system operator forecasts the incremental cost to serve an additional obligation by evaluating current system conditions and the resources that are not previously allocated to meet established obligations. If additional portfolio resources are available (not allocated for native load requirements), the system operator will evaluate the comprehensive cost to produce the quantity of energy needed for an incremental sale.

**WSPP AGREEMENT SCHEDULE Q FOR WESTAR ENERGY**

**Determination of Ceiling Rates Applicable to Cost-Based Sales Made by Westar Energy under the WSPP Agreement**

1. The following rates shall be applicable to any cost-based sale of power and/or energy made by Westar Energy (“Westar”) (1) pursuant to the applicable terms and conditions of the WSPP Agreement, including under Service Schedule A (Economy Energy Service), Service Schedule B (Unit Commitment Service), and Service Schedule C (Firm Capacity/Energy Sale or Exchange Service) and (2) at a delivery point located within the Westar Energy balancing authority area.
2. The rates for any cost-based power and/or energy sale made by Westar Energy pursuant to the applicable terms and conditions of the WSPP Agreement from Westar Energy's generating resources shall not exceed the following:

- (i) Maximum Demand Charge:

The Maximum Demand Charge shall be capped at either of the following methodologies:

Units Most Likely To Participate Methodology

Monthly	Up to \$13,520/MW
Weekly	Up to \$3,120/MW
Daily	Up to \$624/MW, provided, however, that the Daily rate of \$624/MW shall not exceed the product of the number of kilowatts sold for a week multiplied by the maximum weekly demand charge of \$3,120/MW.
Hourly	Up to \$39.00/MW, provided, however, that the hourly rate of \$39.00/MW shall not exceed the product of the number of kilowatts sold for a day multiplied by the maximum daily demand charge of \$624/MW, and also not exceed the product of the number of kilowatts sold for a week multiplied by the maximum weekly demand charge of \$3,120/MW.

- (ii) Energy Charge of no less than 100% of SIC, plus up to 10% of SIC; and
  - (iii) All charges incurred for transmission service, ancillary services, and transmission losses.
3. If Westar Energy enters into a purchased power transaction specifically for the purpose of reselling such power hereunder, the rates shall not exceed the sum of the following:

- (i) Westar Energy's out-of-pocket costs of purchasing such capacity and/or energy, including all related charges incurred for transmission service, ancillary services, transmission losses and any applicable taxes or other similar governmental impositions; and
  - (ii) \$1.00 per megawatt-hour multiplied by the total megawatt-hours scheduled.
- 4. System Incremental Costs (“SIC”) means all reasonably forecasted costs of such power and/or energy and which otherwise would not have been incurred by Westar Energy including, but not limited to, costs associated with fuel, labor, variable operation and maintenance, start-up, shut-down, fuel handling, taxes or other similar governmental impositions, regulatory commission charges, emission allowances and other environmental compliance costs.
- 5. Purchasers in cost-based transactions shall also be responsible for any taxes, purchased power costs, and for any other costs incurred by Westar Energy in fulfilling its obligations for the provision of power and/or energy under the WSPP Agreement, which cost would otherwise not have been incurred, had such service not been provided.

## LIST OF MEMBERS

3 Phases Renewables Inc.  
AEP Energy Partners, Inc.  
Aha Macav Power Service  
Alameda Municipal Power  
Alcoa Power Marketing LLC  
AltaGas Ripon Energy Inc.  
American Electric Power Service Corporation as agent for Indiana Michigan Power Company  
American Electric Power Service Corporation as agent for Public Service Company of Oklahoma and  
Southwestern Electric Power Company  
Anahau Energy, LLC  
Arizona Electric Power Cooperative, Inc.  
Arizona Public Service Company  
Arkansas Electric Cooperative Corp.  
Associated Electric Cooperative, Inc.  
ATCO Power Canada Ltd.  
Avangrid Renewables, LLC  
Avista Corporation  
Basin Electric Power Cooperative  
Black Hills/Colorado Electric Utility Company, L.P.  
Black Hills Wyoming, Inc.  
Black Hills Power Inc.  
BNP Paribas Energy Trading GP  
Bonneville Power Administration  
Boston Energy Trading and Marketing LLC  
BP Energy Company  
Brookfield Energy Marketing LP  
California Choice Energy Authority  
California Department of Water Resources  
California Power Holdings, LLC  
CalPeak Power LLC  
Calpine Energy Services, L.P.  
Calpine Energy Solutions, LLC  
Cargill Power Markets, LLC  
Castleton Commodities Merchant Trading L.P.  
Central Arizona Water Conservation District  
Cheyenne Light, Fuel and Power  
Citigroup Energy Inc.  
City of Anaheim, Public Utilities Dept.  
City of Azusa, California  
City of Banning, California  
City of Burbank, California  
City of Cerritos (Cerritos Electric Utility)  
City of Colton, California  
City of Corona Department of Water and Power  
City of Farmington, New Mexico  
City of Gillette  
City of Glendale, California  
City of Independence, Missouri  
City of Iola, Kansas

City of Lancaster  
City of Lodi Electric Utility  
City of Moreno Valley, California  
City of Palo Alto, California  
City of Pasadena, California  
City of Rancho Cucamonga, California  
City of Redding, California  
City of Riverside, California  
City of Roseville, California  
City of Sikeston, Board of Municipal Utilities  
City of St. George Energy Service Department  
City of Vernon, California  
City of Wathena, Kansas  
Clatskanie People's Utility District  
Cleco Power LLC  
Cleco Utility Group, Inc.  
Colorado River Commission of Nevada  
Colorado Springs Utilities  
Columbia Power Corporation  
Comision Federal de Electricidad  
ConocoPhillips Company  
Constellation NewEnergy, Inc.  
Cooperative Energy, a Mississippi electric cooperative  
Covanta Energy Marketing, LLC  
CP Energy Marketing (US) Inc.  
Credit Suisse Energy LLC  
CWP Energy, Inc.  
Deseret G&T  
Direct Energy Business, LLC  
Direct Energy Business Marketing, LLC  
DTE Energy Trading, Inc.  
Dynergy Marketing and Trade, LLC  
Dynergy Power Marketing, LLC  
East Bay Community Energy Authority  
East Bay Municipal Utility District  
East Texas Electric Cooperative, Inc.  
EDF Trading North America, LLC  
Elk Hills Power, LLC  
El Paso Electric Company  
Empire District Electric Company  
Energy Keepers, Inc.  
Energy Transfer Group, LLC  
Energy Unlimited, Inc.  
Englehart CTP (US) LLC  
ENMAX Energy Corporation  
ENMAX Energy Marketing Inc.  
Entergy Services, Inc. (also Entergy Arkansas, Inc., Entergy Louisiana, LLC, Entergy Mississippi, Inc.,  
Entergy New Orleans, Inc., Entergy Texas, Inc.)  
Eugene Water & Electric Board  
ETC Endure Energy L.L.C.  
Exelon Generation Company, LLC

FortisBC Inc.  
Freepoint Commodities LLC  
Freeport-McMoRan Cooper & Gold Energy Services, LLC  
GDF SUEZ Energy Marketing NA, Inc.  
GenOn Energy Management, LLC  
Gila River Power LLC  
Grays Harbor Energy LLC  
Great River Energy  
Golden Spread Electric Cooperative, Inc.  
Golden State Water Company  
Grand River Dam Authority  
Guzman Energy, LLC  
Guzman Energy Partners LLC  
Harquahala Generating Company, LLC  
Hermiston Generating Company, L.P.  
Hetch Hetchy Water & Power  
High Desert Power Project, LLC  
Hinson Power Company, Inc.  
Idaho Falls Power  
Idaho Power Company  
Illinois Power Marketing Company  
Imperial Irrigation District  
Inland Empire Energy Center LLC  
J. Aron & Company  
Jonesboro City Water and Light  
J.P. Morgan Ventures Energy Corporation  
Just Energy Solutions Inc.  
Kansas City Board of Public Utilities  
Kansas City Power & Light Company  
Kansas Power Pool  
KCP&L Greater Missouri Operations Company  
La Paloma Generating Company, LLC  
Lafayette Utilities System  
Las Vegas Power Company, LLC  
Lincoln Electric System  
Los Alamos County  
Los Angeles Department of Water and Power  
Louisiana Energy and Power Authority  
Louisville Gas & Electric Company  
Luminant Energy Company LLC  
Macquarie Energy LLC  
Malaga Power, LLC  
Manitoba Hydro  
Marin Clean Energy  
McMinnville Water & Light  
Merced Irrigation District  
Mercuria Energy America, Inc.  
Merrill Lynch Commodities, Inc.  
Metropolitan Water District of Southern California  
MidAmerican Energy Company  
Midwest Energy, Inc.

Missouri Joint Municipal Electric Utility Comm.  
Modesto Irrigation District  
Mohave Electric Cooperative, Inc.  
Monterey Bay Community Power Authority  
Morgan Stanley Capital Group, Inc.  
M-S-R Public Power Agency  
Municipal Energy Agency of Nebraska  
NaturEner Power Watch, LLC  
Navajo Tribal Utility Authority  
Nebraska Public Power District  
NextEra Energy Marketing, LLC  
Nevada Power Company  
Newmont Nevada Energy Investments  
New West Energy  
Nexen Energy Marketing U.S.A. Inc.  
Noble Americas Gas & Power Corp.  
Northern California Power Agency  
Northern States Power Company  
Northern Wasco County People's Utility District  
NorthPoint Energy Solutions Inc.  
NorthWestern Corporation dba NorthWestern Energy  
NRG Power Marketing LLC  
Occidental Power Services, Inc.  
Oklahoma Gas & Electric Company  
Oklahoma Municipal Power Authority  
Omaha Public Power District  
Ontario Power Generation Inc.  
Otter Tail Power Company  
Pacific Gas & Electric Company  
Pacific Summit Energy LLC  
PacifiCorp  
Patua Acquisition Company, LLC  
Peninsula Clean Energy Authority  
PG&E Energy Services  
PG&E Energy Trading - Power, L.P.  
Pilot Power Group, Inc.  
Pioneer Community Energy  
Pittsburg Power Company  
Placer County Water Agency  
Plumas-Sierra Rural Electric Cooperative  
Plains Electric Generation and Transmission Cooperative, Inc.  
Platte River Power Authority  
PNGC Power  
Port of Oakland  
Portland General Electric  
Power and Water Resources Pooling Authority  
Power Company of America, L.P.  
Power Resources Cooperative  
Powerex Corp.  
Public Service Company of New Mexico  
Public Service Company of Colorado



Public Utility District No. 1 of Benton County  
Public Utility District No. 1 of Chelan County  
Public Utility District No. 1 of Clark County  
Public Utility District No. 1 of Cowlitz County  
Public Utility District No. 1 of Douglas County  
Public Utility District No. 1 of Franklin County  
Public Utility District No. 1 of Grays Harbor County  
Public Utility District No. 1 of Klickitat County  
Public Utility District No. 1 of Lewis County  
Public Utility District No. 1 of Okanogan County  
Public Utility District No. 1 of Pend Oreille County  
Public Utility District No. 1 of Snohomish County  
Public Utility District No. 2 of Grant County  
Public Utility District No. 3 of Mason County  
Puget Sound Energy  
Rainbow Energy Marketing Corporation  
Reliant Energy Services, Inc.  
Renewable Power Strategies LLC dba RPS Advisors  
Rising Tree Wind Farm LLC  
Royal Bank of Canada  
RWE Trading Americas Inc.  
Sacramento Municipal Utility District  
Safeway Inc.  
Saguaro Power Company  
Salt River Project Agricultural Improvement and Power District  
Salton Sea Power L.L.C.  
San Diego Gas & Electric Co.  
San Geronio Farms, Inc.  
Seattle City Light  
Sempra Gas & Power Marketing LLC  
Shell Energy North America (US), L.P.  
Sierra Pacific Power Co.  
Silicon Valley Clean Energy Authority  
Silicon Valley Power  
Silver State Energy Association  
Skylar Energy LP  
Skylar Resources, LP  
Sonoma Clean Power Authority  
Southern Calif. Edison Co.  
Southern California Public Power Authority  
Southern Company Services, Inc., as agent for: Alabama Power Company, Georgia Power Company,  
Gulf Power Company, Mississippi Power Company and Southern Power Company  
Southern Illinois Power Cooperative  
Southern Nevada Water Authority  
Southwestern Power Administration  
Southwestern Public Service Company  
Sulphur Springs Valley Electric Cooperative, Inc.  
Sunflower Electric Power Corp.  
Switched On, LLC  
Tacoma Power  
Talen Energy Marketing, LLC

Talen Montana, LLC  
Teck Metals Ltd.  
Tenaska Power Services Co.  
Tennessee Valley Authority  
TGP Energy Management, LLC  
The Energy Authority, Inc.  
Town of Apple Valley  
TransAlta Energy Marketing (US) Inc.  
TransCanada Energy Sales Ltd.  
Trico Electric Cooperative, Inc.  
Tri-State Generation and Transmission Association, Inc.  
Tucson Electric Power Company  
Turlock Irrigation District  
Twin Eagle Resource Management, LLC  
Union Electric Company d/b/a Ameren Missouri  
Union Power Partners, L.P.  
UNS Electric Inc.  
Utah Associated Municipal Power Systems  
Utah Municipal Power Agency  
Valley Electric Association, Inc.  
Vantage Wind Energy LLC  
Vitol Inc.  
WAPA-Colorado River Storage Project  
WAPA-Desert Southwest Region  
WAPA – Rocky Mountain Region (LAP)  
WAPA-Upper Great Plains Region  
WAPA-Sierra Nevada Region  
Wellhead Power EXchange, LLC  
Westar Energy, Inc.  
Western Farmers Electric Coop.  
Western Power Services, Inc.  
WTMPA/City of Lubbock (Lubbock Power & Light)

**EXHIBIT B**

IPUC Request to join WSPP

[Attached]



# INDUSTRY PUBLIC UTILITIES COMMISSION

March 28, 2019

Ms. Holli Krebs  
WSPP Executive Committee Chair  
327 N. Wenatchee Avenue  
Wenatchee, WA 98801

Dear Ms. Krebs:

The City of Industry is an industrial suburb of Los Angeles in the San Gabriel Valley region of Los Angeles County, California. There are about 3,000 businesses in the City creating employment for over 67,000 people and total sales of over \$31 billion. The Industry Public Utilities Commission (IPUC) is a publicly owned utility and began providing electric service to specific customers in 2002. Currently there are 101 customers and retail sales totaled 39,095 megawatt hours. IPUC does not have any plans to sell wholesale power

IPUC has entered into an Edison Electric Institute Master Power Purchase and Sale Agreement with three wholesale energy suppliers. An efficient way to expand the number of potential wholesale energy suppliers would be to join the WSPP and rely on the WSPP Agreement.

IPUC formally request becoming a member of the WSPP and pay the membership fee in three installments: \$8,500 upon signing the WSPP Agreement; \$8,500 on the first anniversary; and \$8,000 on the second anniversary.

Sincerely,

Troy Helling  
Public Utilities Director