



12745 N. Thornton Road
Lodi, CA 95242

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Agenda

Date: November 5, 2015

Subject: November 9, 2015 Lodi Energy Center Project Participant Committee Meeting

Location: 12745 N. Thornton Road, Lodi, CA or via teleconference

Time: 10:00 A.M.

*** In compliance with the Brown Act, you may participate in person at the meeting location or via teleconference at one of the locations listed below. In either case, please: (1) post this notice at a publicly accessible location at the participation location at least 72-hours before the meeting begins, and (2) have a speaker phone available for any member of the public who may wish to attend at your location.

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NCPA 12745 N. Thornton Road Lodi, CA	NCPA 651 Commerce Drive Roseville, CA	CITY OF HEALDSBURG 401 Grove Street Healdsburg, CA
BAY AREA RAPID TRANSIT 300 Lakeside Drive, 16 th Floor Oakland, CA	CITY OF GRIDLEY 685 Kentucky Street Gridley, CA	CITY OF LOMPOC 100 Civic Center Plaza Lompoc, CA
CITY OF BIGGS 465 "C" Street Biggs, CA	PLUMAS-SIERRA RURAL ELECTRIC COOP 73233 Highway 70 Portola, CA	POWER & WATER RESOURCES POOLING AUTHORITY 915 L Street, Suite 1270 Sacramento, CA 95814
CALIFORNIA DEPARTMENT OF WATER RESOURCES 2135 Butano Drive, Suite 100 Room 125 Sacramento, CA 95825	Silicon Valley Power Santa Clara 1500 Warburton Avenue, Santa Clara, CA 95050	City of Ukiah 300 Seminary Avenue Ukiah, CA 95482

1. Call Meeting to Order and Roll Call

PUBLIC FORUM

Any member of the public who desires to address the Lodi Energy Center Project Participant Committee on any item considered by the Lodi Energy Center Project Participant Committee at this meeting, before or during the Committee's consideration of that item, shall so advise the Chair and shall thereupon be given an opportunity to do so. Any member of the public who desires to address the Lodi Energy Center Project Participant Committee on any item within the jurisdiction of the Lodi Energy Center Project Participant Committee and not listed on the Agenda may do so at this time.

2. Meeting Minutes - Approval of October 12, 2015 regular meeting minutes

MONTHLY REPORTS

3. Operational Report for October 2015 - (*Jeremy Lawson*)

4. Market Data Report for October 2015 – Verbal Report (*Bob Caracristi*)

5. Monthly Asset Report – (*Michael DeBortoli*)

6. Bidding Strategies Report - Verbal Report and update regarding bidding strategies and regulation down revenues (*Ken Goeke*)

CONSENT CALENDAR

All items on the Consent Calendar are considered routine and will be approved without discussion by a single roll call vote. Any Project Participant or member of the public may remove any item from the Consent Calendar. If an item is removed, it will be discussed separately following approval of the remainder of the Consent Calendar. Prior to the roll call vote to approve the Consent Calendar, the Participants will be polled to determine if any Participant wishes to abstain from one or more items on the Consent Calendar.

7. Treasurer's Report for October 2015 - Accept by all Participants

8. Financial Report for October 2015 - Approve by all Participants

9. GHG Reports (excerpted from monthly ARB) - Accept by all Participants

10. Black & Veatch Corporation Consulting Services Agreement – Staff seeking approval of a five year Multi-Task Consulting Services Agreement with Black & Veatch Corporation for a not to exceed amount of \$500,000 for services related to project support and plant operations at LEC

11. Fuel Supply Procurement, Delivery and Management for LEC – Staff to seek approval of the Assignment, Assumption and Consent Agreement among J.P. Morgan Ventures Energy Corporation, Mercuria Energy Gas Trading LLC, and NCPA for management services and fuel supply for the LEC and underlying NAESB base contract as modified, and corresponding revision to PMOA Schedule 2.00 (Fuel Supply Procurement, Delivery and Management

Consent Items pulled for discussion: _____

BUSINESS ACTION ITEMS

- 12. Roth Energy Company Consulting Services Agreement** – Staff seeking approval of a one year Consulting Services Agreement with Roth Energy Company for gas acquisition and asset advisory services for a not to exceed amount of \$90,000, of which 45% is allocated to the LEC project at a cost of not to exceed \$40,500 (*Ken Goeke*)

INFORMATIONAL/ DISCUSSION ITEMS

- 13. Standard Large Generator Interconnection Agreement Upgrade Project with CAISO** – Staff to provide update (*Michael DeBortoli*)
- 14. City of Gridley seeking prospective offers from LEC Project Participants to purchase 1.071% (or approximately 3MW) of Gridley's LEC generation entitlement share (GES)**
(*Tony Zimmer*)
- 15. Other New Business**

ADJOURNMENT

Next Regular Meeting: December 14, 2015

The Lodi Energy Center Project Participant Committee may take action on any of the items listed on this Agenda regardless of whether the matter appears on the Consent Calendar or is described as an action item, a report, or an information item. If this Agenda is supplemented by staff reports, they are available to the public upon written request. Pursuant to California Government Code Section 54957.5, the following is the location at which the public can view Agendas and other public writings: NCPA, 651 Commerce Drive, Roseville, CA or www.ncpa.com

Persons requiring accommodations in accordance with the Americans with Disabilities Act in order to attend or participant in this meeting are requested to contact the NCPA Secretary at 916.781.3636 in advance of the meeting to arrange for such accommodations.

**Lodi Energy Center
Project Participant Committee Meeting
October 12, 2015 - MEETING MINUTES**

Location: Lodi Energy Center
12745 N. Thornton Rd, Lodi CA 95242
and by teleconference
10:00 A.M.

1. Call Meeting to Order and Roll Call

The PPC meeting was called to order at 10:05 a.m. by Chairman George Morrow. He asked that roll be called of the Project Participants as listed below.

PPC Meeting Attendance Summary		
Participant	Attendance	Particulars / GES
Azusa - Morrow	Present	2.7857%
BART - Lloyd	Absent	6.6000%
Biggs - Sorenson	Present	0.2679%
CDWR - Werner	Present	33.5000%
Gridley - Borges	Absent	1.9643%
Healdsburg - Crowley	Absent	1.6428%
Lodi - Kirkley	Present	9.5000%
Lompoc - Hostler	Absent	2.0357%
MID - Caballero	Present	10.7143%
Plumas-Sierra - Brozo	Absent	0.7857%
PWRPA - McLaughlin	Absent	2.6679%
SVP - Hance	Present	25.7500%
Ukiah - Grandi	Absent	1.7857%
Summary		
Present	6	82.5179%
Absent	7	17.4821%
Quorum by #:	No	
Quorum by GES:	Yes	
Meeting Date:	October 12, 2015	

Public Forum

Chairman Morrow asked if any members of the public were present in Lodi or at any of the other noticed meeting locations who would like to address the PPC on any agenda items. No members of the public were present.

2. Meeting Minutes

The draft minutes of the regular meeting held on September 14, 2015 were considered. The LEC PPC considered the following motion:

Date: 10/12/2015

Motion: The PPC approves the minutes of the September 14, 2015 regular meeting, as presented.

Moved by: MID

Seconded by: CDWR

Discussion: There was no further discussion.

Vote Summary on Motion		
Participant	Vote	Particulars / GES
Azusa	Yes	2.7857%
BART	Absent	6.6000%
Biggs	Yes	0.2679%
CDWR	Yes	33.5000%
Gridley	Absent	1.9643%
Healdsburg	Absent	1.6428%
Lodi	Yes	9.5000%
Lompoc	Absent	2.0357%
Modesto	Yes	10.7143%
Plumas-Sierra	Absent	0.7857%
PWRPA	Absent	2.6679%
Silicon Valley Power	Yes	25.7500%
Ukiah	Absent	1.7857%
Vote Summary		
Total Ayes	6	82.5179%
Total Noes	0	0.0000%
Total Abstain	0	0.0000%
Total Absent	7	17.4821%
Result:	Motion passed.	

MONTHLY REPORTS

3. Operational Reports for September 2015

Jeremy Lawson presented the Operational Report for September. There were no OSHA recordable accidents, no permit violations and no NERC/WECC violations. There were no outages.

Jeremy's report reflected monthly production of 131,613 MWH, 522 service hours, and equivalent operating availability of 100% for the second month in a row. The report set forth the Capacity Factor @ 280MW Pmax of 65.28% and @ 302MW Pmax of 60.53%. The heat rate is on track with PMOA Schedule requirements. The plant had three hot starts, one warm start, and one cold start.

4. Market Data Report for September 2015

Bob Caracristi discussed the operating and financial settlement results for the month which dovetailed with the operational report.

5. Monthly Asset Report

Mike DeBortoli presented the monthly asset report/budget review for August. He noted that current numbers show the plant is over budget by about \$1,500,000 primarily due to revised forecasts of maintenance and the fact that revenue is down from the budget forecast. Another factor increasing costs is due to chemical purchases. He also corrected a reporting error from the prior month's report.

6. Bidding Strategies Report

Ken Goeke presented an update about bidding strategies and regulation revenues and a costs comparison. He said no special strategies have been used in September. The use of the reduction in incremental bids during hours 23 and 24 continued to avoid cycling. He said the regulation down market continues to be a winner for the plant. Although overall positive, staff continues to look at ways to reduce the losses associated with the regulation down and regulation up markets.

Consent Calendar (Items 7 – 12)

The consent calendar was considered. Chairman Morrow asked if any Participant wished to remove any item listed on the Consent Calendar for separate discussion. Hearing none, Chairman Morrow asked if any Participant wished to abstain from one or more items on the Consent Calendar. There were no abstentions. The LEC PPC considered the following motion:

Date: 10/12/2015

Motion: The PPC approves the Consent Calendar items consisting of agenda items no. 7. Treasurer's Report for September 2015; 8. Financial Reports for September 2015; 9. GHG Reports for October 2015; 10. d'Heurle Systems, Inc. five year Multi-Task General Services Agreement for not to exceed \$2,500,000 for general mechanical, electrical, and control system engineering services for use at all NCPA facilities, by its Members, SCPPA, or SCPPA members; 11. Transmission Distribution Services, LLC First Amendment and Assignment due to change in ownership and to expand the locations for work to also include NCPA's Members, SCPPA, or SCPPA members; and LEC PPC meeting dates for 2016.

Moved by: Lodi

Seconded by: MID

Discussion: There was no further discussion.

Vote Summary on Motion		
Participant	Vote	Particulars / GES

Azusa	Yes	2.7857%
BART	Absent	6.6000%
Biggs	Yes	0.2679%
CDWR	Yes	33.5000%
Gridley	Absent	1.9643%
Healdsburg	Absent	1.6428%
Lodi	Yes	9.5000%
Lompoc	Absent	2.0357%
Modesto	Yes	10.7143%
Plumas-Sierra	Absent	0.7857%
PWRPA	Absent	2.6679%
Silicon Valley Power	Yes	25.7500%
Ukiah	Absent	1.7857%
Vote Summary		
Total Ayes	6	82.5179%
Total Noes	0	0.0000%
Total Abstain	0	0.0000%
Total Absent	7	17.4821%
Result:	Motion passed.	

BUSINESS ACTION ITEMS

13. LEC Operational Insurance Coverage

Donna Stevener presented this item and noted that the final cost numbers are not yet available but those reflected in the meeting materials are a very close estimate. The final numbers will not be available until about November 10 and since the NCPA Commission must also give approval, given the timing she is seeking approval based on the estimated numbers presented at this time. Discussion was had about terrorism coverage, replacement cost, and the various risks inherent with the plant. The PPC considered the following motion:

Date: 10/12/2015

Motion: The PPC determines to pass on business interruption coverage, include terrorism coverage, and further determines to maintain annual renewal of the replacement cost operational property and liability insurance program for LEC for the policy period November 20, 2015 through November 20, 2016 at the same insurance limits as currently in place. The LEC PPC approves a premium cost of not to exceed \$675,000 for LEC property coverage and general liability for the renewal, as discussed at today's meeting.

Moved by: Azusa
Seconded by: SVP

Discussion: There was no further discussion

Vote Summary on Motion		
Participant	Vote	Particulars / GES
Azusa	Yes	2.7857%
BART	Absent	6.6000%
Biggs	Yes	0.2679%
CDWR	Yes	33.5000%
Gridley	Absent	1.9643%
Healdsburg	Absent	1.6428%
Lodi	Yes	9.5000%
Lompoc	Absent	2.0357%
Modesto	Yes	10.7143%
Plumas-Sierra	Absent	0.7857%
PWRPA	Absent	2.6679%
Silicon Valley Power	Yes	25.7500%
Ukiah	Absent	1.7857%
Vote Summary		
Total Ayes	6	82.5179%
Total Noes	0	0.0000%
Total Abstain	0	0.0000%
Total Absent	7	17.4821%
Result:	Motion passed.	

14. Siemens Energy, Inc. Anticipated Maintenance Expenses Not Covered by Long Term Maintenance Agreement

Mike DeBortoli and maintenance supervisor, Rafael Santana, presented this item. Mike presented a cost overview for the scheduled outage in May of 2016 and discussed the estimated numbers and funding. He explained about a \$175,000 credit which he proposes to be applied to unforeseen maintenance costs which come to light when the unit is opened up during the outage. He explained the true-up forecast numbers as to the Long Term Maintenance Agreement which are looking good and expects that to continue with expected strong runs in the fall and rainy season. The overall planned costs for the outage are \$346,000 which includes out of scope gas turbine work, including DC lube oil on-line testing, lube oil u-drain, support ring, exhaust flow shield, starting reliability, and IGV lube. Rafael Santana then went through each of those items and explained the maintenance to be performed and its purpose. They also talked about the parts which will be replaced in the Hot Gas Path which would cost millions of dollars if they had to be purchased. Those items are now covered under the Long Term Maintenance Agreement due to the renegotiation when the Third Stage was added. Mike noted that he did a financial analysis of the flow shield replacement and it is positive economically. Mike discussed the STG volute cooling problem caused by a leak around the piston rings which causes the STG to run at a higher temperature and the work around which has been in place and continues to be stable. Analysis was done as to doing that repair during the 2016 planned outage or waiting until the Major which is projected in 2020. There are risks involved in waiting

until the Major because if failed a 30 day forced outage would result. However, if degrading begins to occur, it would be identifiable and there should be time to schedule an outage. Mike explained how the volute, steam and pistons work and talked about the implementation of minimum pressure for the cooling steam which was implemented in March as the work around. Due to the economics, risks, and probabilities, staff recommends that the PPC authorize expenditure for the gas turbine repairs at a cost of \$346,000 but repair of the steam turbine repairs/volute cooling issue be deferred until such time as degradation demand that the repairs be completed with the hope that it will be at the Major. The PPC considered the following motion:

Date: 10/12/2015

Motion: The PPC approves proceeding with procurement of services and materials pursuant to the Long Term Maintenance Agreement with Siemens Energy, Inc. necessary during the 2016 scheduled outage which are not covered by the Agreement in the amount of \$346,000, excluding work to repair the Volute Cooling system on the steam turbine. In addition, the PPC recognizes the risk associated with staffs' recommendation and agrees that the steam turbine repairs will be deferred until such time as degradation demands repairs be completed, as discussed at today's meeting.

Moved by: MID

Seconded by: LODI

Discussion: There was no further discussion.

Vote Summary on Motion		
Participant	Vote	Particulars / GES
Azusa	Yes	2.7857%
BART	Absent	6.6000%
Biggs	Yes	0.2679%
CDWR	Yes	33.5000%
Gridley	Absent	1.9643%
Healdsburg	Absent	1.6428%
Lodi	Yes	9.5000%
Lompoc	Absent	2.0357%
Modesto	Yes	10.7143%
Plumas-Sierra	Absent	0.7857%
PWRPA	Absent	2.6679%
Silicon Valley Power	Yes	25.7500%
Ukiah	Absent	1.7857%
Vote Summary		
Total Ayes	6	82.5179%
Total Noes	0	0.0000%
Total Abstain	0	0.0000%
Total Absent	7	17.4821%
Result:		Motion passed.

15. Fuel Supply Procurement, Delivery, and Management for LEC

Tony Zimmer provided an update and said staff is still working with Mercuria to finalize the agreements. The item will be brought back next month for consideration.

In this discussion it was noted that related to natural gas management, NCPA's Stig facility has pipeline rights which will be reviewed to determine if it wants to renew those rights. The question has been asked whether the pipeline can be used for a greater purpose. NCPA plans to issue an RFP for consulting services to provide assistance in the development of strategies to optimally use the pipeline. The results of that RFP will be provided when available.

INFORMATIONAL ITEMS

16. Standard Large Generator Interconnection Agreement Upgrade Project with CAISO

Mike DeBortoli advised that a revised Study of this project was just received at the end of last week. He said the revised study finds that upgrade of the transmission line is not needed. The findings were based on system reliability and flows and the affect dropped out projects had on the modeling. The transmission line upgrade will not go forward. A revised Interconnection Agreement draft will be done to amend and restate the existing terms with changes only to the exhibits. The item will be brought back at a future meeting to discuss the financial aspects of the matter.

17. Other New Business

George Morrow said he attended the NCPA annual conference and noted the interesting speakers and presentations.

Adjournment

The next regular meeting of the PPC is scheduled for Monday, November 9, 2015. The meeting was adjourned at 11:53 a.m.

Submitted by: Linda Stone



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Lodi Energy Center Project Participant Committee Operational Report

Agenda Item No.: 3

Date: 10/12/2015

To: Lodi Energy Center Project Participant Committee

Safety

- OSHA Recordable: 0 Accidents

Notice of Violations

- Permits: 0 Violations
- NERC/WECC: 0 Violations

Outage Summaries:

- None

Planned Outage Summaries:

- 2016, May 1st – May 29th: Hot Gas Path (HGP), Yard Upgrades (Current Transformers), Hot Reheat Valve (HRH), Misc.

Generating Unit Statistics:

LEC

Report**Date:**

Start Date 10/1/2015

End Date 10/31/2015

1. Monthly Production 165,767 MWH
2. Productivity Factor
- a. Service Hours 654 Hours
- b. Service Factor 87.90 %
- c. Capacity Factor @ 280MW Pmax 79.57 %
- d. Capacity Factor @ 302MW Pmax 73.77 %
3. Equivalent Operating Availability (EOA) 100.00 %
4. Forced Outage Rate (FOR)
- a. Combustion Turbine Generator 0.00 %
- b. Steam Turbine Generator 0.00 %
5. Heat Rate Deviation (HRD)
- a. Fuel Cost (Not Current Market Price) 4.00 \$/mmBTU

MW Range		Average HR BTU/kW-Hr	PMOA HR BTU/kW-Hr	Deviation %	Production MWH	Cost \$
Seg. 1	296 - 302	6,850	6850	0.00%	0	\$0
Seg. 2	284 - 296	7,017	6870	2.14%	2,446	\$1,435
Seg. 3	275 - 284	7,012	6971	0.58%	67,848	\$11,051
Seg. 4	250 - 275	7,042	7081	-0.54%	58,245	-\$8,991
Seg. 5	225 - 250	7,105	7130	-0.35%	14,779	-\$1,472
Seg. 6	200 - 225	7,205	7315	-1.50%	8,375	-\$3,682
Seg. 7	175 - 225	7,391	7711	-4.14%	9,655	-\$12,343
Seg. 8	165 - 175	7,714	7856	-1.81%	3,466	-\$1,970
					164,814	-\$15,971

6. AGC Control Deviation

MW Range		High Dev MWH	Low Dev MWH	Absolute Dev MWH	Cost \$
Seg. 1	296 - 302	0	0	0	\$0
Seg. 2	284 - 296	6	-5	11	\$315
Seg. 3	275 - 284	109	-464	572	\$16,055
Seg. 4	250 - 275	201	-302	503	\$14,174
Seg. 5	225 - 250	83	-41	125	\$3,549
Seg. 6	200 - 225	54	-33	87	\$2,498
Seg. 7	175 - 225	50	-31	81	\$2,381
Seg. 8	165 - 175	16	-6	22	\$685
		519	-882	1,401	\$39,656

7. Starting Reliability

Start Type	Hot Starts	Warm Starts	Cold Starts
Number of Starts	5	1	0
Start Time Benchmark (Minutes)	85	160	235
Start Time Actual (Average Minute)	77.2	157.0	235.0
Start Time Deviation (%)	-9.2%	-1.9%	0.0%
Start Fuel Benchmark PMOA (mmBTU)	1,967	5,200	5,430
Start Fuel Actual (Average mmBTU)	1,371	3,114	5,430
Fuel Deviation	-30.3%	-40.1%	0.0%
Costs of Fuel Deviations (\$)	-\$2,386	-\$8,345	\$0

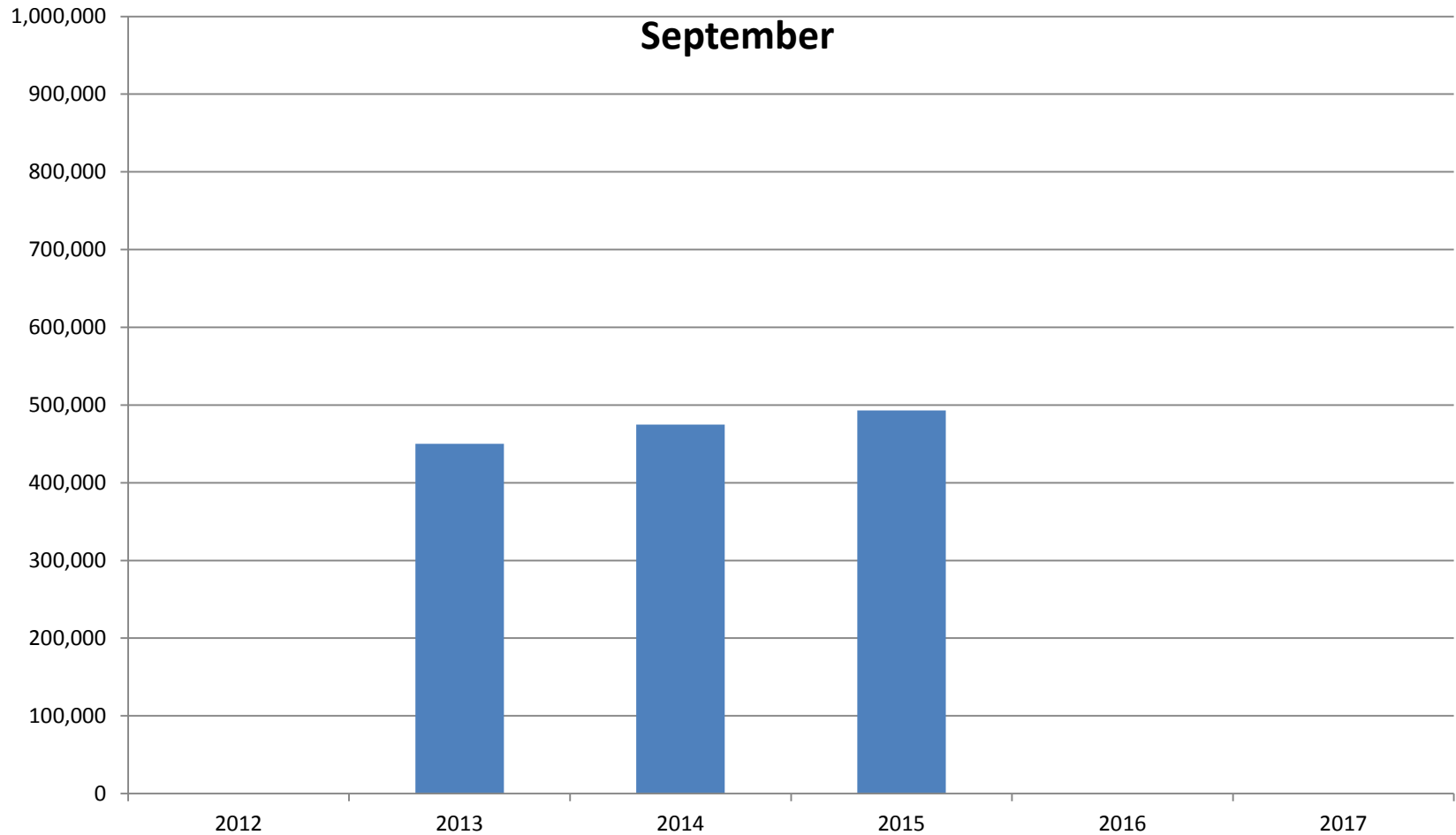
Definitions:

1. Monthly Production = Plant Net MWH's
2. Capacity Factor
 - a. Service Hours = In Production or in Service State
 - b. Service Factor = $SH / PH \times 100\%$
 - c. Capacity Factor = $Production / 302MW \times PH$
 - d. Capacity Factor = $Production / 280MW \times PH$
3. Monthly Equivalent Availability Factor (EAF) = $(AH - EPDH - EFDH) / PH \times 100\%$
4. Forced Outage Rate = $(FOH / (FOH + SH)) \times 100\%$
5. Heat Rate Deviation (HRD)
 - a. Fuel Cost = Cost of Fuel in \$/mmBTU
 - b. Average Heat Rate = The Average Heat Rate for the given Range
 - c. Heat Rate Deviation = $(Heat\ Rate\ Average - Heat\ Rate\ Expected) / Heat\ Rate\ Expected \times 100\%$
 - d. Production = The Sum of Production for the given Range
 - e. Costs of Heat Rate Deviations = $(Average\ Heat\ Rate - Expected\ Heat\ Rate) \times Production \times Cost\ of\ Fuel$
6. AGC Deviation-
 - a. MWH's = AGC Set Point Generation - LEC Actual Generation
 - b. Cost of Deviations = Fuel Cost x Heat Rate x Generation
7. Starting Reliability
 - a. Number of Starts = Start Count for Hot, Warm, and Cold
 - b. Start Time = Average Time from 0 Fuel Flow to Pmin
 - c. Start Fuel = Average Fuel Consumption to Pmin
 - d. Cost of Fuel Deviation = $(Actual\ Fuel\ Consumed - Expected\ Fuel) \times Cost\ of\ Fuel$

September Asset Report

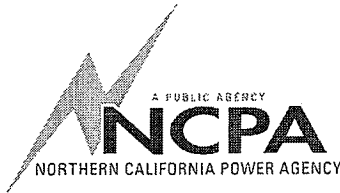
	Most Recent			Above / (below)	Percent Difference	
	Actual	Forecast	Budget	Forecast	Above / (below)	
Revenue	4,700,555	5,276,551	5,431,411	(575,996)	-11%	Softening Energy Prices
VOM	4,043,608	4,471,138	5,697,171	(427,529)	-10%	
Fixed	831,659	766,691	823,593	64,968	8%	HRH Valve Parts, Exciter Blower
Projects	167,177	150,000	267,798	17,177	11%	
A&G	126,784	191,174	191,174	(64,390)	-34%	
Debt	2,203,974	2,203,413	2,203,413	561	0.03%	
Net Cost	(2,672,647)	(2,505,865)	(3,751,739)	(166,782)	7%	
Net Annual Cost		(39,696,077)	(38,335,381)	(\$1,360,696)		
				Above budget by 3.55%		

Historical Margins



Lodi Energy Center
Monthly Budget Analysis
Expenditures
Report Date: 11/03/2015

	July	August	September	October	November	December	January	February	March	April	May	June	Year	FY2016 Budget	Percent Used	Comments
VOM	3,176,314	4,311,594	4,043,608	5,486,424	3,497,942	3,418,246	4,143,505	3,432,432	3,707,027	3,366,938	1,736,703	2,059,409	42,380,143	62,570,196	67.7%	
Capacity Factor	49%	66%	65%	69%	55%	50%	49%	51%	52%	40%	25%	25%	50%	58%	85.8%	
Fuel Consumed (mmBTU, estimated)	747,890	978,039	935,044	1,026,582	789,679	738,349	718,607	710,711	767,568	576,465	367,201	355,355	8,711,490	10,997,634	79.2%	
Avg Fuel Cost (\$/mmBTU)	3.51	3.47	3.40	3.65	3.50	3.70	3.80	3.90	3.90	3.80	3.80	3.80	3.66	4.53	80.7%	
Power Produced (MWHr, estimated)	103,885	137,264	131,608	144,589	111,222	103,993	101,212	100,100	108,108	81,192	51,718	50,050	1,224,943	1,605,494	76.3%	
Avg Power Price (\$/MWHr)	37.27	34.97	35.72	38.00	37.00	36.00	36.00	35.00	33.00	32.00	32.00	32.00	35.34	40.16	88.0%	
Operations / Variable / LTSA	1,784	195,973	174,895	952,835	129,018	120,632	862,201	116,116	125,405	734,684	59,993	436,787	3,910,323	4,844,522	80.7%	
Fuel (estimated)	2,623,866	3,394,919	3,177,971	3,747,025	2,763,875	2,731,893	2,730,708	2,771,772	2,993,514	2,190,568	1,395,362	1,350,350	31,871,823	49,851,535	63.9%	
AB32 GHG Offset (estimated)	505,745	662,253	634,083	722,945	556,112	519,964	506,062	500,501	540,541	405,962	258,592	250,250	6,063,008	7,216,850	84.0%	
CA ISO Charges (estimated)	44,919	58,449	56,660	63,619	48,938	45,757	44,533	44,044	47,568	35,725	22,756	22,022	534,989	657,289	81.4%	
Routine O&M (Fixed)	622,385	812,271	831,659	976,687	1,586,686	766,691	766,687	766,685	766,690	766,686	877,594	766,687	10,307,408	10,217,618	100.9%	
Maintenance / Fixed	36,849	201,799	232,387	349,091	139,091	139,091	139,091	139,091	139,091	139,091	250,000	139,091	2,043,764	1,780,003	114.8%	Exciter Blower Parts, HRH Valve Parts, Well Se
Administration	87,552	101,780	113,365	109,680	109,680	109,681	109,680	109,680	109,681	109,680	109,680	109,680	1,289,819	1,316,163	98.0%	
Mandatory Costs	26,519	69,918	5,785	13,856	13,856	13,856	13,856	13,856	13,856	13,856	13,856	13,856	226,929	235,000	96.6%	
Inventory Stock	0	0	53,287	33,333	33,333	33,334	33,333	33,333	33,334	33,333	33,333	33,334	353,287	400,000	88.3%	
Labor	365,086	316,135	321,097	365,086	365,085	365,088	365,086	365,085	365,088	365,086	365,085	365,086	4,288,093	4,381,034	97.9%	
Insurance	0	0	0	0	820,000	0	0	0	0	0	0	0	820,000	820,000	100.0%	
Power Management & Settlements	102,379	102,379	102,379	102,379	102,379	102,379	102,379	102,378	102,378	102,378	102,378	102,378	1,228,543	1,228,543	100.0%	
Other Costs	4,000	20,260	3,359	3,262	3,262	3,262	3,262	3,262	3,262	3,262	3,262	3,262	56,973	56,875	100.2%	
Projects	150,000	210,039	167,177	165,000	400,000	195,000	150,000	150,000	270,740	175,000	782,849	150,000	2,965,805	2,954,589	100.4%	
Maintenance Reserve	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	1,800,000	1,800,000	100.0%	
Operations & Maintenance Projects	0	51,810	9,402	15,000	100,000	45,000	0	0	120,740	25,000	0	0	366,952	357,595	102.6%	
Capital Projects	0	8,229	7,775	0	150,000	0	0	0	0	0	632,849	0	798,853	796,994	100.2%	
A&G	116,700	172,728	126,784	191,174	191,174	191,174	191,174	191,174	191,174	191,174	191,174	191,174	2,136,781	2,294,093	93.1%	
Administrative & General (Allocated)	102,664	156,924	111,298	158,792	158,792	158,792	158,792	158,792	158,792	158,792	158,792	158,792	1,800,014	1,905,505	94.5%	
Generation Services Shared	14,036	15,804	15,486	32,382	32,382	32,382	32,382	32,382	32,382	32,382	32,382	32,382	336,767	388,588	86.7%	
Total O&M Cost	4,065,399	5,506,632	5,169,228	6,819,285	5,675,803	4,571,111	5,251,366	4,540,292	4,935,631	4,499,798	3,588,321	3,167,271	57,790,137	78,036,496	74.1%	
Debt Service	2,203,974	2,203,974	2,203,974	2,203,414	2,203,413	2,203,413	2,203,414	2,203,414	2,203,414	2,203,414	2,203,414	2,203,414	26,442,646	26,440,994	100.0%	
Revenues	3,887,446	4,833,235	4,700,555	5,626,900	4,247,743	3,876,262	3,776,161	3,636,021	3,700,086	2,730,672	1,787,506	1,734,120	44,536,706	66,142,109	67.3%	
ISO Energy Sales (estimated)	3,871,286	4,799,627	4,700,385	5,494,383	4,115,226	3,743,744	3,643,644	3,503,504	3,567,568	2,598,154	1,654,988	1,601,602	43,294,110	64,481,398	67.1%	
Other Income	16,160	33,608	170	132,517	132,517	132,518	132,517	132,517	132,518	132,518	132,518	132,518	1,242,596	1,660,711		
Net	(\$2,381,927)	(\$2,877,371)	(\$2,672,647)	(\$3,395,799)	(\$3,631,472)	(\$2,898,263)	(\$3,678,619)	(\$3,107,685)	(\$3,438,960)	(\$3,972,541)	(\$4,004,228)	(\$3,636,565)	(\$39,696,077)	(\$38,335,381)	Above budget by 3.55%	



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LEC Treasurer's Report

AGENDA ITEM NO.: 7

Date: November 9, 2015
To: LEC Project Participant Committee
Subject: Treasurer's Report for the Month Ended October 31, 2015

In compliance with NCPA policy and State of California Government Code Sections 53601 and 53646(b), the following monthly report is submitted for your information and acceptance.

Cash - At month end cash totaled \$1,393,336.

Investments - The carrying value of the LEC's investment portfolio totaled \$34,326,972 at month end. The current market value of the portfolio totaled \$34,334,531.

The overall portfolio had a combined weighted average interest rate of 0.871% with a bond equivalent yield (yield to maturity) of 0.828%. Investments with a maturity greater than one year totaled \$17,390,000. During the month \$2 million was invested.

Funds not required to meet annual cash flow are reinvested and separately reported as they occur.

Interest Rates - During the month, rates on 90 day T-Bills increased 4 basis points (from 0.01% to 0.05%) and rates on one year T-Bills decreased 3 basis points (from 0.34% to 0.31%).

To the best of my knowledge and belief, all securities held by LEC as of October 31, 2015 are in compliance with the Agency's investment policy. There are adequate cash flow and investment maturities to meet next month's cash requirements.

Environmental Analysis

The Treasurer's report will not result in a direct or reasonably foreseeable indirect change in the physical environment and is therefore not a "project" for purposes of Section 21065 of the California Environmental Quality Act. No environmental review is necessary.

Respectfully submitted,

DONNA STEVENER
Assistant General Manager/CFO
Administrative Services/Finance

Prepared by:

SONDRA AINSWORTH
Treasurer-Controller

Attachments

Northern California Power Agency/Lodi Energy Center
Treasurer's Report
Cash & Investment Balance
October 31, 2015

	CASH	INVESTMENTS	TOTAL	PERCENT	INVESTMENTS at MARKET
MANDATORY FUNDS					
Debt Service Account	-	11,131,072	11,131,072	31.16%	11,131,744
Debt Service Reserve	-	11,824,771	11,824,771	33.10%	11,851,749
O & M Reserve	-	11,300,062	11,300,062	31.63%	11,279,971
	-	34,255,905	34,255,905	95.90%	34,263,464
ADDITIONAL PROJECT FUNDS					
GHG Cash Account	-	71,066	71,066	0.20%	71,066
Transmission Upgrade Escrow ¹	1,393,336		1,393,336	3.90%	
Participant Deposit Account	-	1	1	0.00%	1
	<u>\$ 1,393,336</u>	<u>\$ 34,326,972</u>	<u>\$ 35,720,308</u>	<u>100.00%</u>	<u>\$ 34,334,531</u>

NOTE A -Investment amounts shown at book carrying value.

¹ Amount held in escrow.

Northern California Power Agency/Lodi Energy Center
Treasurer's Report
Cash Activity Summary
October 31, 2015

	RECEIPTS			EXPENDITURES			CASH
	OPS/CONSTR	INTEREST (NOTE B)	INVESTMENTS (NOTE A)	OPS/CONSTR	INVESTMENTS (NOTE B)	INTER-COMPANY/ FUND TRANSFERS	INCREASE / (DECREASE)
MANDATORY FUNDS							
Debt Service Account	\$ -	\$ 5	\$ -	\$ -	\$ (2,202,686)	\$ 2,202,681	\$ -
Debt Service Reserve	-	55	-	-	(55)	-	-
O & M Reserve	-	3,086	(3,086)	-	-	-	-
	-	3,146	(3,086)	-	(2,202,741)	2,202,681	-
ADDITIONAL PROJECT FUNDS							
GHG Cash Account	-	57	(57)	-	-	-	-
Transmission Upgrade Escrow ¹		24					24
Participant Deposit Account	-	-	-	-	-	-	-
TOTAL	\$ -	\$ 3,227	\$ (3,143)	\$ -	\$ (2,202,741)	\$ 2,202,681	\$ 24

NOTE A -Investment amounts shown at book carrying value.

NOTE B -Net of accrued interest purchased on investments.

¹ Amount held in escrow

Northern California Power Agency/Lodi Energy Center
Treasurer's Report
Investment Activity Summary
October 31, 2015

	PURCHASED	SOLD OR MATURED	(NON-CASH) DISC/(PREM) AMORT	(NON-CASH) GAIN/(LOSS) ON SALE	INVESTMENTS TRANSFERS	INCREASE / (DECREASE)
MANDATORY FUNDS						
Debt Service Account	2,202,686	-	1,006	-	-	2,203,692
Debt Service Reserve	55	-	(50)	-	-	5
O & M Reserve	-	3,086	(1,562)	-	-	1,524
	<u>2,202,741</u>	<u>3,086</u>	<u>(606)</u>	<u>-</u>	<u>-</u>	<u>2,205,221</u>
ADDITIONAL PROJECT FUNDS						
GHG Cash Account		57	-	-	-	57
Participant Deposit Acct.		-	-	-	-	-
TOTAL	<u>\$ 2,202,741</u>	<u>\$ 3,143</u>	<u>\$ (606)</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 2,205,278</u>

Less Non- Cash Activity

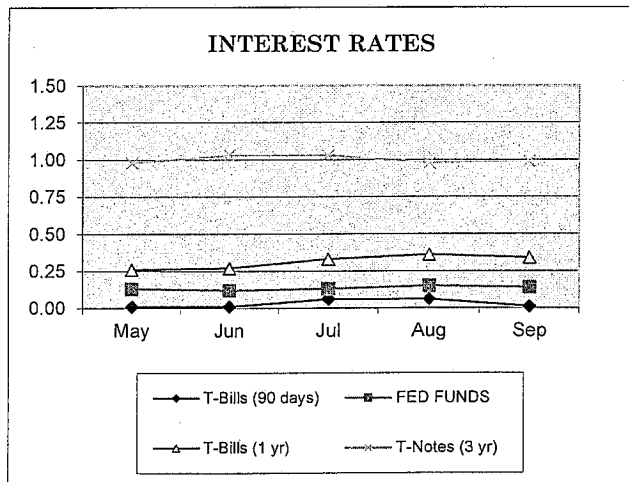
Disc/(Prem) Amortization & Gain/(Loss) on Sale	606
Net Change in Investment --Before Non-Cash Activity	<u>\$ 2,205,884</u>

NOTE A -Investment amounts shown at book carrying value.

Northern California Power Agency
Lodi Energy Center
Interest Rate/Yield Analysis
October 31, 2015

	WEIGHTED AVERAGE INTEREST RATE	BOND EQUIVALENT YIELD
OVERALL COMBINED	0.871%	0.828%
Debt Service Account	0.108%	0.110%
Debt Service Reserve	1.008%	1.044%
O & M Reserve	1.486%	1.312%
GHG Cash Account	0.319%	0.319%

KEY INTEREST RATES		
	CURRENT	PRIOR YEAR
Fed Fds (Ovrnight)	0.12%	0.09%
T-Bills (90da.)	0.05%	0.02%
Agency Disc (90da.)	0.09%	0.07%
T-Bills (1yr.)	0.31%	0.11%
Agency Disc (1yr.)	0.33%	0.14%
T-Notes (3yr.)	0.99%	0.89%



**Northern California Power Agency
Total Portfolio
Investment Maturities Analysis
October 31, 2015**

Type	0-7 Days	8-90 Days	91-180 Days	181-270 Days	271-360 Days	1-5 Years	5-10 Years	Total	Percent
US Government Agencies	\$0	\$11,130	\$0	\$0	\$0	\$17,390	\$0	\$28,520	83.23%
US Bank Trust Money Market	3,369							3,369	9.83%
Commercial Paper								0	0.00%
Investment Trusts (LAIF)	2,376							2,376	6.93%
U.S.Treasury Market Acct.								0	0.00%
U.S.Treasury Bill								0	0.00%
Certificates of Deposit								0	0.00%
Total Dollars	\$5,745	\$11,130	\$0	\$0	\$0	\$17,390	\$0	\$34,265	100.00%
Total Percents	16.77%	32.48%	0.00%	0.00%	0.00%	50.75%	0.00%	100.00%	

Investments are shown at Face Value, in thousands.

NORTHERN CALIFORNIA POWER AGENCY

Detail Report Of Investments

APPENDIX

Note: This appendix has been prepared to comply with
Government Code section 53646.



Northern California Power Agency
Treasurer's Report
10/31/2015

LEC Issue#1 2010A DS Fund

Issuer	Trustee / Custodian	Stated Value	Interest Rate	Purchase Date	Purchased Price	Maturity Date	Days to Maturity	Bond* Equiv Yield	Market Value	CUSIP	Investment #	Carrying Value
US Bank Trust	USB	107	0.100	07/01/2013	107		1	0.100	107	SYS79003	79003	107
Federal Home Loan Ba	USBT	2,082,000	0.155	08/28/2015	2,081,148	12/01/2015	30	0.157	2,081,938	313384PY9	26239	2,081,731
Federal Home Loan Ba	USBT	694,000	0.050	09/29/2015	693,939	12/01/2015	30	0.050	693,979	313384PY9	26255	693,971
Federal Home Loan Ba	USBT	694,000	0.025	10/23/2015	693,981	12/01/2015	30	0.025	693,979	313384PY9	26266	693,986
Fund Total and Average		\$ 3,470,107	0.108		\$ 3,469,175		30	0.110	\$ 3,470,003			\$ 3,469,795

LEC Issue #1 2010B DS Fund

US Bank Trust	USB	908	0.100	07/01/2013	908		1	0.100	908	SYS79004	79004	908
Federal Home Loan Ba	USBT	2,255,000	0.155	08/28/2015	2,254,078	12/01/2015	30	0.157	2,254,932	313384PY9	26240	2,254,709
Federal Home Loan Ba	USBT	726,000	0.050	09/29/2015	725,936	12/01/2015	30	0.050	725,978	313384PY9	26256	725,970
Federal Home Loan Ba	USBT	726,000	0.024	10/23/2015	725,980	12/01/2015	30	0.025	725,978	313384PY9	26267	725,985
Fund Total and Average		\$ 3,707,908	0.109		\$ 3,706,902		30	0.111	\$ 3,707,796			\$ 3,707,572

LEC Issue #2 2010A DS Fund

US Bank Trust	USB	325	0.100	07/01/2013	325		1	0.100	325	SYS79011	79011	325
Federal Home Loan Ba	USBT	1,303,000	0.154	08/28/2015	1,302,467	12/01/2015	30	0.157	1,302,961	313384PY9	26241	1,302,832
Federal Home Loan Ba	USBT	435,000	0.050	09/29/2015	434,962	12/01/2015	30	0.050	434,987	313384PY9	26257	434,982
Federal Home Loan Ba	USBT	434,000	0.024	10/23/2015	433,988	12/01/2015	30	0.025	433,987	313384PY9	26268	433,991
Fund Total and Average		\$ 2,172,325	0.108		\$ 2,171,742		30	0.110	\$ 2,172,260			\$ 2,172,130

LEC Issue #2 2010B DS Fund

US Bank Trust	USB	737	0.100	07/01/2013	737		1	0.100	737	SYS79012	79012	737
Federal Home Loan Ba	USBT	1,083,000	0.155	08/28/2015	1,082,557	12/01/2015	30	0.157	1,082,968	313384PY9	26242	1,082,860
Federal Home Loan Ba	USBT	349,000	0.050	09/29/2015	348,969	12/01/2015	30	0.050	348,990	313384PY9	26258	348,985
Federal Home Loan Ba	USBT	349,000	0.024	10/23/2015	348,991	12/01/2015	30	0.025	348,990	313384PY9	26269	348,993
Fund Total and Average		\$ 1,781,737	0.109		\$ 1,781,254		30	0.110	\$ 1,781,685			\$ 1,781,575

GRAND TOTALS:	\$ 11,132,077	0.108		\$ 11,129,073		30	0.110	\$ 11,131,744			\$ 11,131,072
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*Bond Equivalent Yield to Maturity is shown based on a 365 day year to provide a basis for comparison between all types. Investments with less than 6 months to maturity use an approximate method, all others use an exact method.

Current Market Value is based on prices from Trustee/ Custodian Statements or bid prices from the Wall Street Journal as of 10/31/2015



Northern California Power Agency
Treasurer's Report
10/31/2015

LEC Issue #1 2010 DSR Fund

Issuer	Trustee / Custodian	Stated Value	Interest Rate	Purchase Date	Purchased Price	Maturity Date	Days to Maturity	Bond* Equiv Yield	Market Value	CUSIP	Investment #	Carrying Value
US Bank Trust	USB	18,852	0.100	07/01/2013	18,852		1	0.100	18,852	SYS79005	79005	18,852
Federal National Mtg	USB	4,170,000	0.875	05/30/2014	4,171,960	08/28/2017	666	0.977	4,179,132	3135GOMZ3	26136	4,171,102
Federal Farm Credit	USBT	4,287,000	1.850	06/08/2015	4,287,000	06/08/2020	1,681	1.850	4,305,949	3133EEU65	26230	4,287,000
Fund Total and Average		\$ 8,475,852	1.366		\$ 8,477,812		1178	1.417	\$ 8,503,933			\$ 8,476,954

LEC Iss#1 2010B BABS Subs Resv

US Bank Trust	USB	2,261,238	0.100	07/01/2013	2,261,238		1	0.100	2,261,238	SYS79006	79006	2,261,238
Fund Total and Average		\$ 2,261,238	0.100		\$ 2,261,238		1	0.100	\$ 2,261,238			\$ 2,261,238

LEC Issue #2 2010B DSR BABS

US Bank Trust	USB	1,086,578	0.100	07/01/2013	1,086,578		1	0.100	1,086,578	SYS79013	79013	1,086,578
Fund Total and Average		\$ 1,086,578	0.100		\$ 1,086,578		1	0.100	\$ 1,086,578			\$ 1,086,578
GRAND TOTALS:		\$ 11,823,668	1.008		\$ 11,825,628		845	1.044	\$ 11,851,749.			\$ 11,824,770

*Bond Equivalent Yield to Maturity is shown based on a 365 day year to provide a basis for comparison between all types. Investments with less than 6 months to maturity use an approximate method, all others use an exact method.

Current Market Value is based on prices from Trustee/ Custodian Statements or bid prices from the Wall Street Journal as of 10/31/2015

Investment # 26230 – FFCB - Callable on 6/8/16, then any time.



Northern California Power Agency
Treasurer's Report
10/31/2015

LEC O & M Reserve

Issuer	Trustee / Custodian	Stated Value	Interest Rate	Purchase Date	Purchased Price	Maturity Date	Days to Maturity	Bond* Equiv Yield	Market Value	CUSIP	Investment #	Carrying Value
Local Agency Investm		2,305,201	0.319	07/01/2013	2,305,201		1	0.319	2,305,201	SYS70047	70047	2,305,201
Union Bank of Califo	UBOC	0	0.002	07/18/2013	0		1	0.002	0	SYS70041	70041	0
Federal National Mtg	UBOC	2,933,000	1.875	08/28/2015	2,998,142	02/19/2019	1,206	1.220	2,995,590	3135G0ZA4	26248	2,994,861
Federal Farm Credit	UBOC	6,000,000	1.740	09/30/2015	6,000,000	09/30/2020	1,795	1.740	5,979,180	3133EFFZ5	26260	6,000,000
Fund Total and Average		\$ 11,238,201	1.486		\$ 11,303,343		1273	1.312	\$ 11,279,971			\$ 11,300,062
GRAND TOTALS:		\$ 11,238,201	1.486		\$ 11,303,343		1273	1.312	\$ 11,279,971.			\$ 11,300,062

*Bond Equivalent Yield to Maturity is shown based on a 365 day year to provide a basis for comparison between all types. Investments with less than 6 months to maturity use an approximate method, all others use an exact method.

Current Market Value is based on prices from Trustee/ Custodian Statements or bid prices from the Wall Street Journal as of 10/31/2015

Investment # 26260 – FFCB - Callable on 3/30/16, then any time.



Northern California Power Agency
Treasurer's Report
10/31/2015

LEC GHG Auction Acct

Issuer	Trustee / Custodian	Stated Value	Interest Rate	Purchase Date	Purchased Price	Maturity Date	Days to Maturity	Bond* Equiv Yield	Market Value	CUSIP	Investment #	Carrying Value
Local Agency Investm		71,066	0.319	07/01/2013	71,066		1	0.319	71,066	SYS70046	70046	71,066
Fund Total and Average		\$ 71,066	0.319		\$ 71,066		1	0.319	\$ 71,066			\$ 71,066
GRAND TOTALS:		\$ 71,066	0.319		\$ 71,066		1	0.319	\$ 71,066			\$ 71,066

*Bond Equivalent Yield to Maturity is shown based on a 365 day year to provide a basis for comparison between all types. Investments with less than 6 months to maturity use an approximate method, all others use an exact method.

Current Market Value is based on prices from Trustee/ Custodian Statements or bid prices from the Wall Street Journal as of 10/31/2015



Northern California Power Agency
Treasurer's Report
10/31/2015

LEC Construction Revolving

Issuer	Trustee / Custodian	Stated Value	Interest Rate	Purchase Date	Purchased Price	Maturity Date	Days to Maturity	Bond* Equiv Yield	Market Value	CUSIP	Investment #	Carrying Value
Local Agency Investm		1	0.254	07/01/2013	1		1	0.254	1	SYS70040	70040	1
Fund Total and Average		\$ 1	0.254		\$ 1		1	0.254	\$ 1			\$ 1
GRAND TOTALS:		\$ 1	0.254		\$ 1		1	0.254	\$ 1.			\$ 1

*Bond Equivalent Yield to Maturity is shown based on a 365 day year to provide a basis for comparison between all types. Investments with less than 6 months to maturity use an approximate method, all others use an exact method.

Current Market Value is based on prices from Trustee/ Custodian Statements or bid prices from the Wall Street Journal as of 10/31/2015



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LEC Financial Reports

AGENDA ITEM NO.: 8

Date: November 9, 2015

Subject: October 31, 2015 Financial Reports (Unaudited)

**NORTHERN CALIFORNIA POWER AGENCY
LODI ENERGY CENTER
STATEMENTS OF NET POSITION
UNAUDITED**

	October 31	
	2015	2014
ASSETS		
CURRENT ASSETS		
Cash and cash equivalents	\$ 71,066	\$ 70,868
Interest receivable	20,271	13,108
Inventory and supplies - at average cost	1,538,047	1,335,899
Prepaid insurance	-	13,885
Due from (to) Agency, net	22,527,688	23,461,631
TOTAL CURRENT ASSETS	24,157,072	24,895,391
RESTRICTED ASSETS		
Cash and cash equivalents	11,474,145	8,169,260
Investments	24,175,095	26,228,080
Interest receivable	39,523	12,033
TOTAL RESTRICTED ASSETS	35,688,763	34,409,373
ELECTRIC PLANT		
Electric plant in service	423,412,179	423,372,867
Less: accumulated depreciation	(42,600,414)	(28,000,704)
	380,811,765	395,372,163
Construction work-in-progress	83,779	-
TOTAL ELECTRIC PLANT	380,895,544	395,372,163
OTHER ASSETS		
Regulatory assets	17,082,494	14,236,788
TOTAL OTHER ASSETS	17,082,494	14,236,788
TOTAL ASSETS	\$ 457,823,873	\$ 468,913,715

**NORTHERN CALIFORNIA POWER AGENCY
LODI ENERGY CENTER
STATEMENTS OF NET POSITION
UNAUDITED**

	October 31	
	2015	2014
LIABILITIES & NET POSITION		
CURRENT LIABILITIES		
Accounts and retentions payable	\$ 3,751,075	\$ 6,716,266
Operating reserves	14,345,055	12,024,923
Current portion of long-term debt	9,480,000	9,025,000
Accrued interest payable	7,056,841	7,242,710
TOTAL CURRENT LIABILITIES	34,632,971	35,008,899
NON-CURRENT LIABILITIES		
Operating reserves and other deposits	5,491,105	981,928
Long-term debt, net	362,201,354	372,515,967
TOTAL NON-CURRENT LIABILITIES	367,692,459	373,497,895
TOTAL LIABILITIES	402,325,430	408,506,794
DEFERRED INFLOWS OF RESOURCES		
Regulatory credits	44,058,159	46,169,484
NET POSITION		
Invested in capital assets, net of related debt	(5,936,704)	(6,329,190)
Restricted	11,316,046	14,412,425
Unrestricted	6,060,942	6,154,202
TOTAL NET POSITION	11,440,284	14,237,437
TOTAL LIABILITIES AND NET POSITION	\$ 457,823,873	\$ 468,913,715

**NORTHERN CALIFORNIA POWER AGENCY
LODI ENERGY CENTER
STATEMENT OF REVENUES, EXPENSES
& CHANGES IN NET POSITION
UNAUDITED**

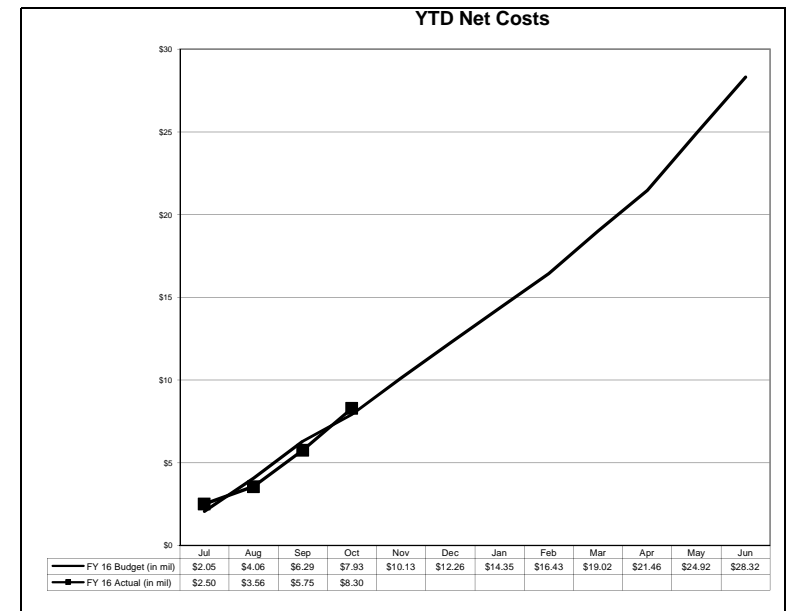
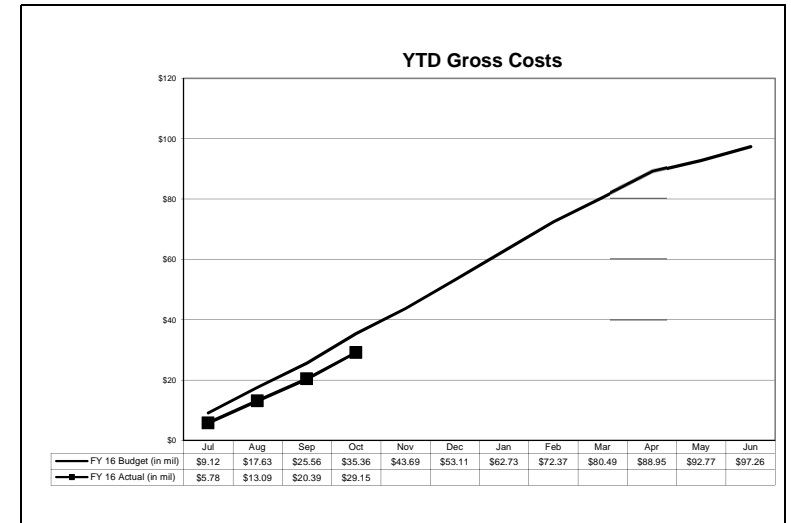
	Four Months Ended October 31	
	2015	2014
SALES FOR RESALE		
Participants	\$ 14,000,066	\$ 12,491,996
Other	20,775,878	28,141,073
TOTAL SALES FOR RESALE	34,775,944	40,633,069
OPERATING EXPENSES		
Operations	14,719,304	21,684,159
Depreciation	4,866,801	4,866,349
Purchased power	1,529,883	-
Maintenance	2,307,074	2,113,442
Administrative and general	1,346,946	1,233,762
Transmission	235,033	2,771,936
Intercompany (sales) purchases	66,309	82,626
TOTAL OPERATING EXPENSES	25,071,350	32,752,274
NET OPERATING REVENUES	9,704,594	7,880,795
OTHER REVENUES (EXPENSES)		
Interest expense	(5,412,314)	(5,489,616)
Interest income	112,853	71,967
Other	1,811,452	547,867
TOTAL OTHER REVENUES (EXPENSES)	(3,488,009)	(4,869,782)
FUTURE RECOVERABLE AMOUNTS	691,778	1,618,640
REFUNDS TO PARTICIPANTS	(70)	(4)
INCREASE IN NET POSITION	6,908,293	4,629,649
NET POSITION		
Beginning of year	4,531,991	9,607,788
End of period	\$ 11,440,284	\$ 14,237,437

**Lodi Energy Center
FY 2016 Operating Costs
As of October 31, 2015**

	Annual Budget	Actual	Remaining	YTD % Remaining	Notes
Routine O&M Costs					
Variable	\$ 4,844,523	\$ 1,374,981	\$ 3,469,542	72%	
Fixed	1,780,003	784,267	995,736	56%	B
Administration	1,316,163	403,236	912,927	69%	
Mandatory Costs	235,000	105,816	129,184	55%	C
Inventory Stock	400,000	63,607	336,393	84%	
Routine O&M Costs without Labor	8,575,689	2,731,907	5,843,782	68%	
Labor	4,381,034	1,252,159	3,128,875	71%	
Total Routine O&M Cost	12,956,723	3,984,066	8,972,657	69%	
Other Costs					
Fuel	49,851,536	12,554,113	37,297,423	75%	
CA ISO Charges	657,289	235,033	422,256	64%	
CA ISO Purchased Energy	-	1,529,883	(1,529,883)	N/A	A
Debt Service	26,440,994	8,815,895	17,625,099	67%	
Insurance	820,000	273,333	546,667	67%	
Other Costs	56,875	33,776	23,099	41%	D
Generation Services Shared	388,592	66,309	322,283	83%	
Administrative & General (Allocated)	1,905,508	496,432	1,409,076	74%	
Power Management Allocated Costs	1,228,543	409,514	819,029	67%	
Total O&M Cost	94,306,060	28,398,354	65,907,706	70%	
Projects					
Operations & Maintenance	371,740	106,940	264,800	71%	
Capital	782,849	40,466	742,383	95%	
Maintenance Reserve	1,800,000	600,000	1,200,000	67%	
Total Projects	2,954,589	747,406	2,207,183	75%	
Annual Cost	97,260,649	29,145,760	68,114,889	70%	
Less: Third Party Revenue					
Interest Income	44,489	72,671	(28,182)	-63%	
ISO Energy Sales	67,279,734	20,231,870	47,047,864	70%	
Ancillary Services Sales	1,616,222	544,008	1,072,214	66%	
Other Income	-	170	(170)	N/A	
	68,940,445	20,848,719	48,091,726	70%	
Net Annual Cost to Participants	\$ 28,320,204	\$ 8,297,041	\$ 20,023,163	71%	
Total Variable Costs	55,353,348	14,164,127	41,189,221		
Total Fixed Costs	41,907,301	14,981,633	26,925,668		
	\$ 97,260,649	\$ 29,145,760	\$ 68,114,889		
Net Cumulative Generation (MWh)	1,605,494	538,492			
Total O&M Cost Per MWh	\$ 58.74	\$ 52.74			
Net Annual Cost Per MWh	\$ 17.64	\$ 15.41			

Footnotes:

- A** - Non-budgeted costs due to load balancing requirements at CA ISO.
B - Higher costs due to maintenance and clean out of water treatment system. Variance expected to level out during the year.
C - Higher costs due to annual permit fee paid in prior months. Variance expected to level out during the year.
D - Higher costs due to annual trustee fee paid during month. Variance expected to level out during the year.



2013 NCPA All Resources Bill LEC GHG Compliance Instrument Detail Report
for the Lodi Energy Center

IDENTIFIER	Actual													Compliance Year 2013 Total
	DECEMBER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	
Energy (MWh)	0	82,787	101,925	128,167	134,284	32,545	80,153	122,492	94,615	92,091	98,739	105,078	138,068	1,210,944
Gas Schedule (MMBtu)	0	593,484	723,038	894,657	952,529	229,724	579,650	870,331	673,965	650,250	692,396	738,008	965,292	8,563,324
Emissions Factor (MT/MMBtu)	0	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054
HVAC/Water Heater (MT)													86.000	
Monthly MT Emissions (MT)	0	32,027	39,019	48,280	51,403	12,397	31,281	46,967	36,371	35,091	37,365	39,827	52,178	462,206
Cumulative MT Obligation (MT)	0	32,027	71,046	119,326	170,730	183,127	214,407	261,375	297,745	332,836	370,201	410,028	462,206	462,206
Compliance Instrument Participant Transfers (to LEC)														
Auction Allowances	92,695	5,350	0	13,644	105,000	50,632	30,628	1,600	102,200	12,594	0	0	46,290	460,633
Secondary Market Allowances	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserve Sale Allowances	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Offsets	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Compliance Instrument Participant Transfers (MT)	92,695	5,350	0	13,644	105,000	50,632	30,628	1,600	102,200	12,594	0	0	46,290	460,633
NCPA Compliance Instrument Purchases (for LEC)														
Auction Purchases	47,000	0	0	0	0	0	0	0	0	0	0	0	0	47,000
Secondary Market Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserve Sale Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Offset Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total NCPA Compliance Instrument Purchases (MT)	47,000	0	0	0	0	0	0	0	0	0	0	0	0	47,000
Compliance Instruments Surrendered to CARR (MT)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Monthly Activity (MT)	139,695	5,350	0	13,644	105,000	50,632	30,628	1,600	102,200	12,594	0	0	46,290	507,633
Cumulative MT Account Balance [MTA] (MT)	139,695	145,045	145,045	158,689	263,689	314,321	344,949	346,549	448,749	461,343	461,343	461,343	507,633	507,633
MTA Shortfall (MT)	(139,695)	(113,018)	(73,999)	(39,363)	(92,959)	(131,194)	(130,542)	(85,174)	(151,004)	(128,507)	(91,142)	(51,315)	(45,427)	(45,427)

2013 NCPA Air Resources Bill LEC GHG Compliance Instrument Detail Report for the Lodi Energy Center	2014 NCPA Air Resources Bill LEC GHG Compliance Instrument Detail Report for the Lodi Energy Center												
	Actual												Compliance Year 2014
IDENTIFIER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	Total
Energy (MWh)	136,604	156,089	120,489	55,378	71,210	51,037	118,473	69,006	178,831	197,715	51,636	106,338	1,312,806
Gas Schedule (MMBtu)	951,700	1,092,730	858,805	391,272	512,068	371,695	836,762	496,327	1,251,547	1,371,546	372,826	759,691	9,266,969
Emissions Factor (MT/MMBtu)	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054
HVAC/Water Heater (MT)												173,000	
Monthly MT Emissions (MT)	51,358	58,969	46,345	21,115	27,634	20,059	45,156	26,784	67,540	74,015	20,120	41,170	500,265
Cumulative MT Obligation (MT)	513,564	572,533	618,879	639,994	667,628	687,686	732,842	759,626	827,166	901,181	782,385	823,555	823,555
Compliance Instrument Participant Transfers (to LEC)													
Auction Allowances	102,347	50,000	48,066	25,000	1,290	138,448	0	0	13,586	50,520	100,350	350	529,957
Secondary Market Allowances	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserve Sale Allowances	0	0	0	0	0	0	0	0	0	0	0	0	0
Offsets	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Compliance Instrument Participant Transfers (MT)	102,347	50,000	48,066	25,000	1,290	138,448	0	0	13,586	50,520	100,350	350	529,957
NCPA Compliance Instrument Purchases (for LEC)													
Auction Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0
Secondary Market Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserve Sale Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0
Offset Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0
Total NCPA Compliance Instrument Purchases (MT)	0	0	0	0	0	0	0	0	0	0	0	0	0
Compliance Instruments Surrendered to CARB (MT)	0	0	0	0	0	0	0	0	0	0	138,916	0	138,916
Total Monthly Activity (MT)	102,347	50,000	48,066	25,000	1,290	138,448	0	0	13,586	50,520	100,350	350	529,957
Cumulative MT Account Balance [MTA] (MT)	609,980	659,980	708,046	733,046	734,336	872,784	872,784	872,784	886,370	936,890	898,324	898,674	898,674
MTA Shortfall (MT)	(96,416)	(87,447)	(89,167)	(93,052)	(66,708)	(185,098)	(139,942)	(113,158)	(59,204)	(35,709)	(115,939)	(75,119)	(75,119)

2015 NCPA Air Resources Bill LEC GHG Compliance Instrument Detail Report for the Lodi Energy Center	2015 NCPA Air Resources Bill LEC GHG Compliance Instrument Detail Report for the Lodi Energy Center												
	Actual									Estimated			Compliance Year 2015
IDENTIFIER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	Total
Energy (MWh)	196,019	151,600	184,507	181,244	91,067	142,275	103,883	137,266	131,608	144,588	111,222	103,992	1,679,271
Gas Schedule (MMBtu)	1,368,474	1,073,330	1,299,294	1,269,481	646,027	1,009,450	740,553	971,283	927,730	1,012,118	778,552	727,946	11,824,238
Emissions Factor (MT/MMBtu)	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	
HVAC/Water Heater (MT)													
Monthly MT Emissions (MT)	73,850	57,922	70,116	68,508	34,863	54,475	39,964	52,415	50,065	54,619	42,015	39,284	638,095
Cumulative MT Obligation (MT)	897,404	955,327	1,025,443	1,093,951	1,128,814	1,183,288	1,223,252	1,275,668	1,325,733	1,380,352	1,422,366	1,461,650	1,461,650
Compliance Instrument Participant Transfers (to LEC)													
Auction Allowances	41,342	250	250,100	15,000	86,000	107,327	104,000	0	0	58,201	0	0	662,220
Secondary Market Allowances	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserve Sale Allowances	0	0	0	0	0	0	0	0	0	0	0	0	0
Offsets	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Compliance Instrument Participant Transfers (MT)	41,342	250	250,100	15,000	86,000	107,327	104,000	0	0	58,201	0	0	662,220
NCPA Compliance Instrument Purchases (for LEC)													
Auction Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0
Secondary Market Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0
Reserve Sale Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0
Offset Purchases	0	0	0	0	0	0	0	0	0	0	0	0	0
Total NCPA Compliance Instrument Purchases (MT)	0	0	0	0	0	0	0	0	0	0	0	0	0
Compliance Instruments Surrendered to CARR (MT)	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Monthly Activity (MT)	41,342	250	250,100	15,000	86,000	107,327	104,000	0	0	58,201	0	0	662,220
Cumulative MT Account Balance [MTA] (MT)	940,016	940,266	1,190,366	1,205,366	1,291,366	1,398,693	1,502,693	1,502,693	1,502,693	1,560,894	1,560,894	1,560,894	1,560,894
MTA Shortfall (MT)	(42,612)	15,061	(164,923)	(111,415)	(162,552)	(215,405)	(279,441)	(227,025)	(176,960)	(180,542)	(138,528)	(99,244)	(99,244)

2013 NCPA Air Resources Bill LEC GHG Compliance Instrument Detail Report for the Lodi Energy Center	2016 NCPA All Resources Bill LEC GHG Compliance Instrument Detail Report for the Lodi Energy Center									
	Estimated						Compliance Year 2016	Cumulative Totals		
IDENTIFIER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	Total	Total	Charge Code	Source
Energy (MWh)	101,212	100,100	108,108	81,192	51,718	50,050	492,379	4,695,400		Forecast/Meter
Gas Schedule (MMBtu)	708,482	700,697	756,753	568,343	362,027	350,348	3,446,650	33,101,181		Forecast/Meter
Emissions Factor (MT/MMBtu)	0.054	0.054	0.054	0.054	0.054	0.054				MARS
HVAC/Water Heater (MT)										
Monthly MT Emissions (MT)	38,233	37,813	40,838	30,671	19,537	18,907	185,998	1,600,566		derived
Cumulative MT Obligation (MT)	1,499,883	1,537,696	1,578,534	1,609,205	1,628,742	1,647,648	1,647,648	1,647,648		derived
Compliance Instrument Participant Transfers (to LEC)										
Auction Allowances	0	0	0	0	0	0	0	1,652,810		CITSS
Secondary Market Allowances	0	0	0	0	0	0	0	0		CITSS
Reserve Sale Allowances	0	0	0	0	0	0	0	0		CITSS
Offsets	0	0	0	0	0	0	0	0		CITSS
Total Compliance Instrument Participant Transfers (MT)	0	0	0	0	0	0	0	1,652,810		
NCPA Compliance Instrument Purchases (for LEC)										
Auction Purchases	0	0	0	0	0	0	0	47,000		CITSS
Secondary Market Purchases	0	0	0	0	0	0	0	0		CITSS
Reserve Sale Purchases	0	0	0	0	0	0	0	0		CITSS
Offset Purchases	0	0	0	0	0	0	0	0		CITSS
Total NCPA Compliance Instrument Purchases (MT)	0	0	0	0	0	0	0	47,000		
Compliance Instruments Surrendered to CARR (MT)	0	0	0	0	0	0	0	138,916		CITSS
Total Monthly Activity (MT)	0	0	0	0	0	0	0	1,699,810		derived
Cumulative MT Account Balance [MTA] (MT)	1,560,894	1,560,894	1,560,894	1,560,894	1,560,894	1,560,894	1,560,894	1,560,894		derived
MTA Shortfall (MT)	(61,011)	(23,198)	17,640	48,311	67,848	86,754	86,754	86,754	MTA SHORTFALL	derived

Forecast has been updated through June 2016

NCPA All Resources Bill LEC GHG Obligation Detail Report (Cumulative) November 2015															
IDENTIFIER	AZUSA	BART	BIGGS	CDWR	GRI	HEA	LOD	LOM	MID	PLU	PWRPA	SNCL	UKI	TOTAL	Charge Code
Allocation Percentages															
Generation Entitlement Share %	2.7857%	6.6000%	0.2679%	33.5000%	1.9643%	1.6428%	9.5000%	2.0357%	10.7143%	0.7857%	2.6679%	25.7500%	1.7857%	100%	
Obligation Accounts															
Current MT Compliance Obligation (MTO) Balance (MT)	39,616	93,859	3,810	476,406	27,934	23,362	135,100	28,950	152,369	11,173	37,940	366,193	25,395	1,422,107	
Current MT Compliance Instrument Account (MTA) Balance (MT)	40,830	111,109	4,549	509,463	32,370	26,612	145,920	40,092	163,116	11,179	39,081	386,280	27,115	1,537,716	
MTA Shortfall (MT)	(1,215)	(17,249)	(739)	(33,057)	(4,436)	(3,250)	(10,820)	(11,143)	(10,747)	(5)	(1,140)	(20,088)	(1,721)	(115,609)	MTA SHORTFALL
Monthly GHG Price \$/MT	12.83	12.83	12.83	12.83	12.83	12.83	12.83	12.83	12.83	12.83	12.83	12.83	12.83	12.83	MTA SHORTFALL
GHG Minimum Cash Compliance Obligation (\$)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MTA SHORTFALL
Current Month CCA Balance (\$)*	60,991	0	143	0	1,103	4,780	755	0	0	0	0	0	2,652	70,424	CCA BALANCE
Net GHG Obligation (\$)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NET GHG OBLIG

* The Current Month CCA Balance (\$) consists of the current cash balance plus any outstanding balance of Net GHG Obligation (\$) billed but not yet received.

Source
MARS
derived
derived
Derived
ICE Index
Derived
Accounting
Derived



Lodi Energy Center Project Participant Committee

Staff Report

AGENDA ITEM NO.: 10

Date: November 9, 2015
To: Lodi Energy Center Project Participant Committee
Subject: Black & Veatch Corporation – Five Year Multi-Task Consulting Services Agreement; **Applicable to the following projects: Lodi Energy Center**

Proposal

Approve a five year Multi-Task Consulting Services Agreement with Black & Veatch Corporation for not-to-exceed \$500,000 for services related to project support and plant operations at the Lodi Energy Center facility.

Background

Various consulting services are required at the Lodi Energy Center (LEC) facility from time to time related to project support and plant operations. Black & Veatch Corporation is a provider of these services.

Selection Process

This five year contract does not commit NCPA to any expenditure of funds. When these services are required, NCPA will bid the specific scope of work consistent with NCPA procurement policies and procedures. NCPA currently has entered into an enabling agreement with WorleyParsons Group for similar services. NCPA will seek bids from as many qualified providers as possible at the time services are needed. Bids are awarded to the lowest cost provider. NCPA will issue purchase orders based on cost and availability of the services needed at the time the service is required.

Fiscal Impact

Upon execution the total cost of the agreement is not-to-exceed \$500,000 over five years to be used out of NCPA approved budgets as services are rendered. Purchase orders referencing the terms and conditions of the Agreement will be issued following NCPA procurement policies and procedures.

Environmental Analysis

This activity would not result in a direct or reasonably foreseeable indirect change in the physical environment and is therefore not a “project” for purposes of Section 21065 the California Environmental Quality Act. No environmental review is necessary.

Recommendation

NCPA staff recommends that the PPC pass a motion approving the Multi-Task Consulting Services Agreement with Black & Veatch Corporation with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed \$500,000 over five years.

Prepared by:

KEN SPEER
Assistant General Manager
Generation Services

Attachments: (1)

- Multi-Task Consulting Services Agreement with Black & Veatch Corporation



**MULTI-TASK
CONSULTING SERVICES AGREEMENT BETWEEN
THE NORTHERN CALIFORNIA POWER AGENCY AND
BLACK & VEATCH CORPORATION**

This agreement for consulting services (this "Agreement") is made by and between the Northern California Power Agency, a joint powers agency with its main office located at 651 Commerce Drive, Roseville, CA 95678-6420 ("Agency") and Black & Veatch Corporation, a corporation with its office located at 11401 Lamar, Overland Park, KS 66211 ("Consultant") (together sometimes referred to as the "Parties") as of [REDACTED], 2015 ("Effective Date") in Roseville, California.

Section 1. SERVICES. Subject to the terms and conditions set forth in this Agreement, Consultant is willing to provide to Agency the range of services described in the Scope of Work attached hereto as Exhibit A and incorporated herein ("Services").

- 1.1 **Term of Agreement.** The term of this Agreement shall begin on the Effective Date and shall end when Consultant completes the Services, or no later than five (5) years from the date this Agreement was signed by Agency, whichever is shorter.
- 1.2 **Standard of Performance.** Consultant shall perform the Services in the manner and according to the standards observed by a competent practitioner of the profession in which Consultant is engaged and for which Consultant is providing the Services. Consultant represents that it is licensed, qualified and experienced to provide the Services set forth herein.

As used in this Section 1.2, "Warranty Period" means one (1) calendar year following completion of the Services, except that with regard to design, "Warranty Period" means one (1) calendar year following Substantial Completion of the related project; provided, however, that in no event will the Warranty Period extend beyond four years from Consultant's completion of the Services. "Substantial Completion" means the stage in which the progress of a project, or applicable portion thereof, is sufficiently complete such that the Agency can occupy or utilize the project or portion thereof for its intended purpose.

If, during the Warranty Period, it is shown there is an error in the Services caused solely by Consultant's failure to meet the standard of performance in this Section 1.2, and Agency has notified Consultant in writing of any such error within that period, Consultant shall re-perform, at no additional cost to Agency, such Services within the original scope of Services as may be necessary to remedy such error. Re-performed Services shall be warranted for an additional year, not to exceed four years from the completion of the original Services.

If the Services include a technical review of work performed by Agency's contractors or consultants, Consultant shall provide such technical review in order for Agency to have a greater degree of confidence that such work will conform generally to the contract

documents between Agency and Agency's contractors or consultants. Agency's contractors and consultants shall remain solely responsible for the quality of the work that Consultant reviews, and Consultant's review shall not be deemed to be a warranty or guarantee from Consultant regarding the quality of the work reviewed. Agency agrees that its exclusive remedy for defective work by others that is reviewed by Consultant shall be from Agency's contractors and consultants who performed the work.

Consultant shall have no liability for defects in the Services attributable to Consultant's reliance upon or use of data, design criteria, drawings, specifications, or other information furnished by Agency or third parties not under contract to Consultant (collectively, "Third Party Information"); provided, however, that (1) this provision shall not excuse Consultant's failure to perform the Services to the standard of care in this Section 1.2, and (2) where the scope of services includes checking or verifying the accuracy of Third Party Information, this provision shall not excuse Consultant from performing such checking or verifying to the standard of care in this Section 1.2.

The obligations and representations contained in this Section 1.2 are Consultant's sole warranty and guarantee obligations and Agency's exclusive remedy in respect of quality of the Services. EXCEPT AS PROVIDED IN THIS ARTICLE, CONSULTANT MAKES NO OTHER WARRANTIES OR GUARANTEES, EXPRESS OR IMPLIED, RELATING TO CONSULTANT'S SERVICES AND CONSULTANT DISCLAIMS ANY IMPLIED WARRANTIES OR WARRANTIES IMPOSED BY LAW INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. This Section 1.2 governs, modifies, and supersedes any other terms in this Agreement which may be construed to address warranties or guarantees or the quality of the Services.

- 1.3 **Assignment of Personnel.** Consultant shall assign only competent personnel to perform the Services. In the event that Agency, in its sole discretion, at any time during the term of this Agreement, requests the reassignment of any such personnel, Consultant shall, immediately upon receiving written notice from Agency of such request, reassign such personnel.
- 1.4 **[Intentionally left blank.]**
- 1.5 **Request for Services.** At such time that Agency determines to use Consultant's Services under this Agreement, Agency shall issue a Purchase Order. The Purchase Order shall identify the specific services to be performed ("Requested Services"), may include a not-to-exceed monetary cap on Requested Services and expenditures authorized by that Purchase Order, and a time by which the Requested Services shall be completed. Consultant shall have fourteen (14) days from the date of the Agency's issuance of the Purchase Order in which to respond in writing whether Consultant chooses to perform the Requested Services. If Consultant fails to respond within such time and agree to perform the Requested Services on the terms set forth in the Purchase Order, this Agreement, and

its Exhibits, the Purchase Order is deemed rejected and Agency shall not be bound by the Purchase Order issued to Consultant.

Section 2. COMPENSATION. Agency hereby agrees to pay Consultant an amount **NOT TO EXCEED FIVE HUNDRED THOUSAND** dollars (\$500,000) for the Services, which shall include all fees, costs, expenses and other reimbursables, as set forth in Consultant's fee schedule, attached hereto and incorporated herein as Exhibit B. This dollar amount is not a guarantee that Agency will pay that full amount to the Consultant, but is merely a limit of potential Agency expenditures under this Agreement.

2.1 **Invoices.** Consultant shall submit invoices, not more often than once a month during the term of this Agreement, based on the cost for services performed and reimbursable costs incurred prior to the invoice date. Invoices shall contain the following information:

- The beginning and ending dates of the billing period;
- Services performed;
- The Purchase Order number authorizing the Requested Services;
- At Agency's option, the total number of hours of work performed under the Agreement by Consultant and each employee, agent, and subcontractor of Consultant performing services hereunder.
- At Agency's option, for each work item in each task, a copy of the applicable time entries showing the name of the person doing the work, the hours spent by each person, a brief description of the work, and each reimbursable expense, with supporting documentation;

Invoices shall be sent to:

Northern California Power Agency
651 Commerce Drive
Roseville, California 95678
Attn: Accounts Payable

2.2 **Monthly Payment.** Agency shall make monthly payments, based on invoices received, for services satisfactorily performed, and for authorized reimbursable costs incurred. Agency shall have thirty (30) days from the receipt of an invoice that complies with all of the requirements above to pay Consultant.

2.3 **Payment of Taxes.** Consultant is solely responsible for the payment of all federal, state and local taxes, including employment taxes, incurred under this Agreement.

2.4 **Authorization to Perform Services.** The Consultant is not authorized to perform any Services or incur any costs whatsoever under the terms of this Agreement until receipt of a Purchase Order from the Contract Administrator.

- 2.5 **Timing for Submittal of Final Invoice.** Consultant shall have ninety (90) days after completion of the Requested Services to submit its final invoice for the Requested Services. In the event Consultant fails to submit an invoice to Agency for any amounts due within the ninety (90) day period, Consultant is deemed to have waived its right to collect its final payment for the Requested Services from Agency.

Section 3. FACILITIES AND EQUIPMENT. Except as set forth herein, Consultant shall, at its sole cost and expense, provide all facilities and equipment that may be necessary to perform the Services.

Section 4. INSURANCE REQUIREMENTS. Before beginning any work under this Agreement, Consultant, at its own cost and expense, shall procure the types and amounts of insurance listed below and shall maintain the types and amounts of insurance listed below for the period covered by this Agreement.

- 4.1 **Workers' Compensation.** If Consultant employs any person, Consultant shall maintain Statutory Workers' Compensation Insurance and Employer's Liability Insurance for any and all persons employed directly or indirectly by Consultant with limits of one million dollars (\$1,000,000.00) per accident.

4.2 **Commercial General and Automobile Liability Insurance.**

- 4.2.1 **Commercial General Insurance.** Consultant shall maintain commercial general liability insurance for the term of this Agreement, including products liability, covering any loss or liability, including the cost of defense of any action, for bodily injury, death, personal injury and broad form property damage which may arise out of the operations of Consultant. The policy shall provide a limit of \$1,000,000 per occurrence/\$2,000,000 aggregate. Commercial general coverage shall be at least as broad as ISO Commercial General Liability form CG 0001 (current edition) on "an occurrence" basis covering General Liability, with a self-insured retention or deductible of no more than \$100,000. No endorsement shall be attached limiting the coverage.
- 4.2.2 **Automobile Liability.** Consultant shall maintain automobile liability insurance form CA 0001 (current edition) for the term of this Agreement covering any loss or liability, including the cost of defense of any action, arising from the operation, maintenance or use of any vehicle (symbol 1), whether or not owned by the Consultant, on or off Agency premises. The policy shall provide a limit of \$1,000,000 per each accident, with a self-insured retention or deductible of no more than \$100,000. This insurance shall provide contractual liability covering all motor vehicles and mobile equipment to the extent coverage may be excluded from general liability insurance.
- 4.2.3 **General Liability/Umbrella Insurance.** The coverage amounts set forth above may be met by a combination of underlying and umbrella policies as long as in combination the limits equal or exceed those stated.

- 4.3 **Professional Liability Insurance.** Consultant shall maintain professional liability insurance appropriate to Consultant's profession performing work in connection with this Agreement in an amount of one million dollars (\$1,000,000.00) and two million dollars (\$2,000,000) aggregate covering the Consultant's errors and omissions. Any deductible or self-insured retention shall not exceed two hundred fifty thousand dollars (\$250,000) per claim.
- 4.4 **All Policies Requirements.**
- 4.4.1 **Verification of coverage.** Prior to beginning any work under this Agreement, Contractor shall provide Agency with (1) a Certificate of Insurance that demonstrates compliance with all applicable insurance provisions contained herein and (2) policy endorsements to the policies referenced in Section 4.2, adding the Agency as an additional insured and declaring such insurance primary in regard to work performed pursuant to this Agreement.
- 4.4.2 **Notice of Reduction in or Cancellation of Coverage.** Consultant shall provide at least thirty (30) days prior written notice to Agency of any reduction in scope or amount, cancellation, or modification adverse to Agency of the policies referenced in Section 4.
- 4.4.3 [Intentionally left blank.]
- 4.5 **Waiver of Subrogation.** Consultant agrees to waive subrogation which any insurer of Consultant may acquire from Consultant by virtue of the payment of any loss. Consultant agrees to obtain any endorsement that may be necessary to effect this waiver of subrogation. The Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of Agency for all work performed by Consultant, its employees, agents and subcontractors.
- 4.6 **Consultant's Obligation.** Consultant shall be solely responsible for ensuring that all equipment, vehicles and other items utilized in the performance of Services are operated, provided or otherwise utilized in a manner that ensures they are and remain covered by the policies referenced in Section 4 during this Agreement. Consultant shall also ensure that all workers involved in the provision of Services are properly classified as employees, agents or independent contractors and are and remain covered by any and all workers' compensation insurance required by applicable law during this Agreement.

Section 5. INDEMNIFICATION AND CONSULTANT'S RESPONSIBILITIES.

- 5.1 **Effect of Insurance.** Agency's acceptance of insurance certificates and endorsements required under this Agreement does not relieve Consultant from liability under this indemnification and hold harmless clause. This indemnification and hold harmless clause

shall apply to any damages or claims for damages whether or not such insurance policies shall have been determined to apply. By execution of this Agreement, Consultant acknowledges and agrees to the provisions of this Section and that it is a material element of consideration.

- 5.2 **Scope.** Consultant shall indemnify, defend with counsel reasonably acceptable to the Agency, and hold harmless the Agency and its officials, commissioners, officers, employees, and volunteers from and against any and all third party claims for bodily injury (including death) or property damage to the extent arising out of the negligence, recklessness or willful misconduct of the Consultant in its performance of Services under this Agreement. For the avoidance of doubt, claims of an employee of Agency or Consultant are deemed third party claims. Consultant shall bear all losses, costs, damages, expense and liability of every kind, nature and description that arise out of, pertain to, or relate to such claims, whether directly or indirectly ("Liabilities"). Such obligations to defend, hold harmless and indemnify the Agency shall not apply to the extent that such Liabilities are caused by the negligence or willful misconduct of the Agency.

For the avoidance of doubt, this Section 5.2 shall not affect direct claims or actions by Agency against Consultant.

- 5.3 **Limitation of Liability.** Having considered the risks and potential liabilities that may arise out of the Services, the benefits of the Services, and in specific consideration of the promises contained in this Agreement and other valuable consideration, receipt of which is acknowledged, Agency and Consultant allocate and limit such liabilities in accordance with this Section 5.3. Notwithstanding any other provision of this Agreement, and to the fullest extent permitted by law:

In no event shall Consultant be liable to Agency for any loss of profits or revenue; loss of use; loss of opportunity; loss of goodwill; cost of substitute facilities, goods or services; cost of capital; cost of replacement power; governmental and regulatory sanctions (other than sanctions imposed on Consultant by governmental and regulatory agencies); and claims of customers for such damages; or for any special, consequential, incidental, indirect, punitive, or exemplary damages in any way arising from or related to the performance of this Agreement;

The total cumulative liability of Consultant and any entity owned by, owning, controlled by, controlling or under common control of Consultant to Agency for all claims, losses, damages, and expenses in any way arising from or related to the performance of this Agreement shall not be greater than Two Million Dollars (\$2,000,000).

Releases, waivers and limitations expressed in this Agreement concerning liability and remedies shall apply even in the event of the fault, tort (including negligence), strict liability, breach of contractor warranty, or other basis of liability of the Party released or

whose liability is limited or against whom remedies have been limited and shall extend to the officers, directors, partners, employees, licensors, agents, subcontractors, vendors and related entities of such Party.

Section 6. STATUS OF CONSULTANT.

- 6.1 Independent Contractor.** Consultant is an independent contractor and not an employee of Agency. Agency shall have the right to control Consultant only insofar as the results of Consultant's Services and assignment of personnel pursuant to Section 1; otherwise, Agency shall not have the right to control the means by which Consultant accomplishes Services rendered pursuant to this Agreement. Notwithstanding any other Agency, state, or federal policy, rule, regulation, law, or ordinance to the contrary, Consultant and any of its employees, agents, and subcontractors providing services under this Agreement shall not qualify for or become entitled to, and hereby agree to waive any and all claims to, any compensation, benefit, or any incident of employment by Agency, including but not limited to eligibility to enroll in the California Public Employees Retirement System (PERS) as an employee of Agency and entitlement to any contribution to be paid by Agency for employer contributions and/or employee contributions for PERS benefits.

Consultant shall indemnify, defend, and hold harmless Agency for the payment of any employee and/or employer contributions for PERS benefits on behalf of Consultant or its employees, agents, or subcontractors, as well as for the payment of any penalties and interest on such contributions, which would otherwise be the responsibility of Agency. Consultant and Agency acknowledge and agree that compensation paid by Agency to Consultant under this Agreement is based upon Consultant's estimated costs of providing the Services, including salaries and benefits of employees, agents and subcontractors of Consultant.

Consultant shall indemnify, defend, and hold harmless Agency from any lawsuit, administrative action, or other claim for penalties, losses, costs, damages, expense and liability of every kind, nature and description that arise out of, pertain to, or relate to such claims, whether directly or indirectly, Consultant's failure to secure workers' compensation insurance for its employees, agents, or subcontractors.

Consultant agrees that it is responsible for the provision of group healthcare benefits to its fulltime employees under 26 U.S.C. § 4980H of the Affordable Care Act. To the extent permitted by law, Consultant shall indemnify, defend and hold harmless Agency from any penalty issued to Agency under the Affordable Care Act resulting from the performance of the Services by any employee, agent, or subcontractor of Consultant.

- 6.2 Consultant Not Agent.** Except as Agency may specify in writing, Consultant shall have no authority, express or implied, to act on behalf of Agency in any capacity whatsoever as an agent. Consultant shall have no authority, express or implied, pursuant to this Agreement to bind Agency to any obligation whatsoever.

- 6.3 **Assignment and Subcontracting.** This Agreement contemplates personal performance by Consultant and is based upon a determination of Consultant's unique professional competence, experience, and specialized professional knowledge. A substantial inducement to Agency for entering into this Agreement was and is the personal reputation and competence of Consultant. Consultant may not assign this Agreement or any interest therein without the prior written approval of the Agency. Consultant shall not subcontract any portion of the performance contemplated and provided for herein, other than to the subcontractors identified in Exhibit A, without prior written approval of the Agency. Where written approval is granted by the Agency, Consultant shall supervise all work subcontracted by Consultant in performing the services and shall be responsible for all work performed by a subcontractor as if Consultant itself had performed such work. The subcontracting of any work to subcontractors shall not relieve Consultant from any of its obligations under this Agreement with respect to the services and Consultant is obligated to ensure that any and all subcontractors performing any services shall be fully insured in all respects and to the same extent as set forth under Section 4, to Agency's satisfaction.
- 6.4 **Certification as to California Energy Commission.** If requested by the Agency, Consultant shall, at the same time it executes this Agreement, execute Exhibit C.

Section 7. LEGAL REQUIREMENTS.

- 7.1 **Governing Law.** The laws of the State of California shall govern this Agreement.
- 7.2 **Compliance with Applicable Laws.** Consultant and its subcontractors and agents, if any, shall comply with all laws applicable to the performance of the work hereunder.
- 7.3 **Licenses and Permits.** Consultant represents and warrants to Agency that Consultant and its employees, agents, and subcontractors (if any) have and will maintain at their sole expense during the term of this Agreement all licenses, permits, qualifications, and approvals of whatever nature that are legally required to practice their respective professions.

Section 8. TERMINATION AND MODIFICATION.

- 8.1 **Termination.** Agency may cancel this Agreement at any time and without cause upon ten (10) days prior written notice to Consultant.

In the event of termination, Consultant shall be entitled to compensation for Services satisfactorily completed as of the effective date of termination; Agency, however, may condition payment of such compensation upon Consultant delivering to Agency any or all records or documents, as referenced in Section 9.1 hereof.

- 8.2 **Amendments.** The Parties may amend this Agreement only by a writing signed by all the Parties.

- 8.3 **Survival.** All obligations arising prior to the termination of this Agreement and all provisions of this Agreement allocating liability between Agency and Consultant shall survive the termination of this Agreement.
- 8.4 **Options upon Breach by Consultant.** If Consultant materially breaches any of the terms of this Agreement, including but not limited to those set forth in Section 4, Agency's remedies shall include the following:
- 8.4.1 Immediately terminate the Agreement;
 - 8.4.2 Retain the plans, specifications, drawings, reports, design documents, and any other work product prepared by Consultant pursuant to this Agreement that Agency has paid for, or for which Agency pays pursuant to a final invoice;
 - 8.4.3 Retain a different consultant to complete the Services not finished by Consultant; and/or
 - 8.4.4 Charge Consultant the difference between the costs to complete the Services that is unfinished at the time of breach and the amount that Agency would have paid Consultant pursuant hereto if Consultant had completed the Services.

Section 9. KEEPING AND STATUS OF RECORDS.

- 9.1 **Records Created as Part of Consultant's Performance.** All reports, data, maps, models, charts, studies, surveys, photographs, memoranda, plans, studies, specifications, records, files, or any other documents or materials, in electronic or any other form, that Consultant is required to deliver to Agency as a deliverable under this Agreement shall be the property of the Agency. Consultant hereby agrees to deliver those documents to the Agency upon termination of the Agreement. Agency and Consultant agree that, unless approved by Agency in writing, Consultant shall not release to any non-parties to this Agreement any data, plans, specifications, reports and other documents. Nothing contained in this Section shall be construed as limiting or depriving Consultant of its rights to use its basic knowledge and skills to design or carry out other projects or work for itself or others, whether or not such other projects or work are similar to the work to be performed pursuant to this Agreement.
- 9.2 **Consultant's Books and Records.** Consultant shall maintain any and all records or other documents evidencing or relating to charges for Services or expenditures and disbursements charged to the Agency under this Agreement for a minimum of three (3) years, or for any longer period required by law, from the date of final payment to the Consultant to this Agreement.

9.3 **Inspection and Audit of Records.** Any records or documents that this Agreement requires Consultant to maintain shall be made available for inspection, audit, and/or copying at any time during regular business hours, upon oral or written request of the Agency. Under California Government Code Section 8546.7, if the amount of public funds expended under this Agreement exceeds ten thousand dollars (\$10,000.00), the Agreement shall be subject to the examination and audit of the State Auditor, at the request of Agency or as part of any audit of the Agency, for a period of three (3) years after final payment under the Agreement.

9.4 **Confidential Information and Disclosure.**

9.4.1 **Confidential Information.** The term "Confidential Information", as used herein, shall mean any and all confidential, proprietary, or trade secret information, whether written, recorded, electronic, oral or otherwise, where the Confidential Information is made available in a tangible medium of expression and marked in a prominent location as confidential, proprietary and/or trade secret information. Confidential Information shall not include information that: (a) was already known to the Receiving Party or is otherwise a matter of public knowledge, (b) was disclosed to Receiving Party by a third party without violating any confidentiality agreement, (c) was independently developed by Receiving Party without reverse engineering, as evidenced by written records thereof, or (d) was not marked as confidential Information in accordance with this section.

9.4.2 **Non-Disclosure of Confidential Information.** During the term of this Agreement, either party may disclose ("The Disclosing Party") confidential Information to the other party ("the Receiving Party"). The Receiving Party: (a) shall hold the Disclosing Party's Confidential Information in confidence; and (b) shall take all reasonable steps to prevent any unauthorized possession, use, copying, transfer or disclosure of such Confidential Information.

9.4.3 **Permitted Disclosure.** Notwithstanding the foregoing, the following disclosures of Confidential Information are allowed. Receiving Party shall endeavor to provide prior written notice to Disclosing Party of any permitted disclosure made pursuant to Section 9.4.3.2 or 9.4.3.3. Disclosing Party may seek a protective order, including without limitation, a temporary restraining order to prevent or contest such permitted disclosure; provided, however, that Disclosing Party shall seek such remedies at its sole expense. Neither party shall have any liability for such permitted disclosures:

9.4.3.1 Disclosure to employees, agents, consultants, contractors, subcontractors or other representatives of Receiving Party that have a need to know in connection with this Agreement.

9.4.3.2 Disclosure in response to a valid order of a court, government or regulatory agency or as may otherwise be required by law; and

9.4.3.3 Disclosure by Agency in response to a request pursuant to the California Public Records Act.

9.4.4 **Handling of Confidential Information.** Conclusion of Agreement. Receiving Party shall return to Disclosing Party or destroy Confidential Information (including all copies thereof) upon termination of this Agreement, if requested by Disclosing Party in writing. Notwithstanding the foregoing, the Receiving Party may retain copies of such Confidential Information, subject to the confidentiality provisions of this Agreement: (a) for archival purposes in its computer system; (b) in its legal department files; and (c) in files of Receiving Party's representatives where such copies are necessary to comply with applicable law. Party shall not disclose the Disclosing Party's Information to any person other than those of the Receiving Party's employees, agents, consultants, contractors and subcontractors who have a need to know in connection with this Agreement.

Section 10 MISCELLANEOUS PROVISIONS.

- 10.1 **Attorneys' Fees.** If a party to this Agreement brings any action, including an action for declaratory relief, to enforce or interpret the provision of this Agreement, the prevailing party shall be entitled to reasonable attorneys' fees in addition to any other relief to which that party may be entitled. The court may set such fees in the same action or in a separate action brought for that purpose.
- 10.2 **Venue.** In the event that either party brings any action against the other under this Agreement, the Parties agree that trial of such action shall be vested exclusively in the state courts of California in the County of Placer or in the United States District Court for the Eastern District of California.
- 10.3 **Severability.** If a court of competent jurisdiction finds or rules that any provision of this Agreement is invalid, void, or unenforceable, the provisions of this Agreement not so adjudged shall remain in full force and effect. The invalidity in whole or in part of any provision of this Agreement shall not void or affect the validity of any other provision of this Agreement.
- 10.4 **No Implied Waiver of Breach.** The waiver of any breach of a specific provision of this Agreement does not constitute a waiver of any other breach of that term or any other term of this Agreement.
- 10.5 **Successors and Assigns.** The provisions of this Agreement shall inure to the benefit of and shall apply to and bind the successors and assigns of the Parties.

- 10.6 **Conflict of Interest.** Consultant may serve other clients, but none whose activities within the corporate limits of Agency or whose business, regardless of location, would place Consultant in a "conflict of interest," as that term is defined in the Political Reform Act, codified at California Government Code Section 81000 *et seq.*

Consultant shall not employ any Agency official in the work performed pursuant to this Agreement. No officer or employee of Agency shall have any financial interest in this Agreement that would violate California Government Code Sections 1090 *et seq.*

- 10.7 **Contract Administrator.** This Agreement shall be administered by Ken Speer, Assistant General Manager, or his/her designee, who shall act as the Agency's representative. All correspondence shall be directed to or through the representative

- 10.8 **Notices.** Any written notice to Consultant shall be sent to:

Black & Veatch Corporation
Attention: Sean Kilgrow
Street: 10995 Gold Center Dr. Suite 100
City, State Zip: Rancho Cordova, CA 95670

With copy to:

Attention: Carlos Araoz
Street: 10995 Gold Center Dr. Suite 100
City, State Zip: Rancho Cordova, CA 95670

Any written notice to Agency shall be sent to:

Randy S. Howard
General Manager
Northern California Power Agency
651 Commerce Drive
Roseville, CA 95678

With a copy to:

Michael F. Dean
General Counsel
Northern California Power Agency
Meyers Nave
555 Capitol Mall, Suite 1200
Sacramento, CA 95814

- 10.9 **Professional Seal.** Where applicable in the determination of the Agency, the first page of a technical report, first page of design specifications, and each page of construction drawings shall be stamped/sealed and signed by the licensed professional responsible for the report/design preparation.
- 10.10 **Integration; Incorporation.** This Agreement, including all the exhibits attached hereto, represents the entire and integrated agreement between Agency and Consultant and supersedes all prior negotiations, representations, or agreements, either written or oral. All exhibits attached hereto are incorporated by reference herein.
- 10.11 **Alternative Dispute Resolution.** If any dispute arises between the Parties that cannot be settled after engaging in good faith negotiations, Agency and Consultant agree to resolve the dispute in accordance with the following:
- 10.11.1 Each party shall designate a senior management or executive level representative to negotiate any dispute;
- 10.11.2 The representatives shall attempt, through good faith negotiations, to resolve the dispute by any means within their authority.
- 10.11.3 If the issue remains unresolved after fifteen (15) days of good faith negotiations, the Parties shall attempt to resolve the disagreement by negotiation between legal counsel. If the above process fails, the Parties shall resolve any remaining disputes through mediation to expedite the resolution of the dispute.
- 10.11.4 The mediation process shall provide for the selection within fifteen (15) days by both Parties of a disinterested third person as mediator, shall be commenced within thirty (30) days and shall be concluded within fifteen (15) days from the commencement of the mediation.
- 10.11.5 The Parties shall equally bear the costs of any third party in any alternative dispute resolution process.
- 10.11.6 The alternative dispute resolution process is a material condition to this Agreement and must be exhausted as an administrative prior to either Party initiating legal action. This alternative dispute resolution process is not intended to nor shall be construed to change the time periods for filing a claim or action specified by Government Code §§ 900 *et seq.*
- 10.12 **Controlling Provisions.** In the case of any conflict between the terms of this Agreement and the Exhibits hereto, a Purchase Order, or Consultant's Proposal (if any), the Agreement shall control. In the case of any conflict between the Exhibits hereto, a Purchase Order, or the Consultant's Proposal, the Exhibits shall control.

- 10.13 **Counterparts.** This Agreement may be executed in multiple counterparts, each of which shall be an original and all of which together shall constitute one agreement.
- 10.14 **Construction of Agreement.** Each party hereto has had an equivalent opportunity to participate in the drafting of the Agreement and/or to consult with legal counsel. Therefore, the usual construction of an agreement against the drafting party shall not apply hereto.
- 10.15 **No Third Party Beneficiaries.** This Agreement is made solely for the benefit of the parties hereto, with no intent to benefit any non-signator third parties.

Section 11. SAFETY AND HAZARDOUS MATERIALS.

- 11.1 **Safety and Environmental Regulations.** Consultant shall be responsible for the safety of its own employees at all times during the performance of any Services. Consultant's safety program shall include all requisite components required under Federal, state and local regulations, and shall comply with all Agency or project site programs, if applicable.
- 11.1.1 Consultant shall not have control or charge of and shall not be responsible for: construction means, methods, techniques, sequences, or procedures of construction; the acts or omissions of Agency's contractors, vendors or suppliers; or the safety or environmental precautions and programs in connection with the work performed by Agency's contractors, vendors or suppliers; provided, however, that this Section 11.1.1 shall not apply where the Services specified in a Purchase Order specifically include these responsibilities.
- 11.1.2 Consultant shall not be responsible for the adequacy or completeness of any other entity's safety or environmental programs, procedures, or precautions at the job site, and Consultant shall not have the authority to stop such other entity's work; provided, however, that this Section 11.1.2 shall not apply where the Services specified in a Purchase Order specifically include such responsibilities.
- 11.2 **Pre-Existing Contamination.** "Hazardous Waste" means any toxic or radioactive substance so defined under applicable federal, state or local laws or regulations. "Pre-Existing Contamination" is any Hazardous Waste present at the job site that was not brought onto such site by Consultant or at the direction of Consultant. Notwithstanding anything in this Agreement to the contrary, title to, ownership of, and legal responsibility and liability for Pre-Existing Contamination shall at all times remain with Agency. Agency agrees to release, defend, indemnify, and hold Consultant harmless from and against any and all liability and claims, including attorneys' fees, that may in any manner arise in any way directly or indirectly from such Pre-Existing Contamination.

Agency shall, at Agency's sole expense and risk, arrange for handling, storage, transportation, treatment, and delivery for disposal of Pre-Existing Contamination. Agency shall be solely responsible for obtaining a disposal site for Pre-Existing Contamination. Agency shall look to the disposal facility and transporter for any responsibility or liability arising from improper disposal or transportation of Pre-Existing Contamination. Consultant shall not have or exert any control over Agency in Agency's obligations or responsibilities as a generator in the storage, transportation, treatment, or disposal of any Pre-Existing Contamination. Agency shall complete and execute any forms or certificates relating to regulated activities, including generation, storage, handling, treatment, transportation, or disposal of Pre-Existing Contamination. In the event that Consultant executes or completes any such forms or certificates, Consultant shall be, and be deemed to have acted as, Agency's agent.

The Parties have executed this Agreement as of the date signed by the Agency.

NORTHERN CALIFORNIA POWER AGENCY

BLACK & VEATCH CORPORATION

Date_____

Date_____

RANDY S. HOWARD, General Manager

Mark Duckworth
Power Generation Services Director

Attest:

Assistant Secretary of the Commission

Approved as to Form:

Assistant General Counsel

EXHIBIT A

SCOPE OF SERVICES

Black & Veatch Corporation ("Consultant") shall provide the Northern California Power Agency ("Agency") with consulting services related to project support and plant operations as needed by the Agency.

Services to include, but not be limited to the following:

- Feasibility Studies
- Business Model Development
- Conceptual Design
- Cost Estimating
- Contract Planning
- Engineering Services (preliminary and detailed)
- Engineering Studies
- Execution Planning
- Operations and Maintenance Evaluation and Support
- Vendor Quality Assurance
- Construction Management
- Start-up and Commissioning service

EXHIBIT B

COMPENSATION SCHEDULE AND HOURLY FEES

Compensation for all tasks, including hourly fees and expenses, shall not exceed amount as set forth in Section 2 of this Agreement. The hourly rates and or compensation break down and an estimated amount of expenses is as follows:

Black & Veatch Billing Rates and Expense Schedule for Home Office Consulting Engineering Services Calendar Year 2015	
HOURLY BILLING RATES (see Client Billings and Notes) Title/Description/Hourly Billing Rate (\$USD)	
Project Administration	
Project accounting and office support including clerical, secretarial and billing.	
Project Administration	\$74.00
Technicians and Technical Support	
Technical designers, drafters, and other technical support functions.	
Associate Technician / Designer	\$86.00
Staff Technician / Designer	\$107.00
Lead Technician/Designer	\$136.00
Senior Technician/Designer	\$176.00
Engineering and Management	
Engineering design, analysis, and management. Includes departmental and project assignments including project management, executives and engineering department management.	
Associate Engineers	\$96.00
Staff Engineers	\$116.00
Design Engineers	\$136.00
Project Engineers	\$163.00
Senior Engineers	\$192.00
Engineering Managers	\$208.00
Project Managers	\$218.00
Senior Project Managers	\$245.00
Executives	\$267.00
Estimating, Project Controls and Procurement	
Professionals who assess the cost related to projects, track the cost associated with a project, and perform planning and scheduling functions related to projects. These professionals also provide procurement support activities.	
Staff Professional	\$114.00
Lead Professional	\$143.00
Senior Professional	\$222.00
Specialized Staff	
Specialist staff such as scientists, geologists, environmental consultants, lawyers, equipment or technology experts, and construction specialists.	
Associate Specialist	\$89.00
Specialist	\$114.00
Lead Specialist	\$159.00
Senior Specialist	\$213.00

Client Billings: Client shall pay to Engineer for the performance of the Services the sum of the following amounts unless the compensation is otherwise stated in the specific task assignment.
1. Labor cost will be billed as actual hours charged to this project by Black & Veatch personnel and in accordance with the rates above.
2. Typical and customary home office expenses, including computer related expenses (network server charges, PC usage charges, software and design application charges, printing, plotting, and server storage), reprographic services, document production, fax, telephone, postage/courier, etc. will be billed at a rate of \$8.00 per hour of direct billed labor.
3. Expenses for travel and lodging will be billed at actual cost. These expenses include cost such as air-fare, personal mileage, lodging, meals, motor vehicles rental, telephone, special rental equipment, etc.
4. Cost of 3rd party services and for non-customary office costs such as production printing will be billed at actual cost plus 10%.
5. Field assignments of longer than 60 days will be billed as actual hours charged to this project by Black & Veatch personnel in accordance with the rate sheet plus uplift as determined by current field services policy. Expenses for field assignments can be per diem, actual expenses, or a combination of both as specific to the assignment.
6. Overtime applies only to non-exempt personnel as defined by the US Federal Wage and Hour Law. Overtime will be billed as actual hours charged to this project by Black & Veatch personnel in accordance with the rate sheet plus 50%.
7. Any other professionals not specifically identified above will be placed in the most appropriate category above based on function and experience.
Notes:
1. Billing rates are subject to annual adjustment on each January 1.

NOTE: As a public agency, NCPA shall not reimburse Consultant for travel, food and related costs in excess of those permitted by the Internal Revenue Service.

EXHIBIT C

CERTIFICATION

Affidavit of Compliance for Consultants

I,

(Name of person signing affidavit)(Title)

do hereby certify that background investigations to ascertain the accuracy of the identity and employment history of all employees of
BLACK & VEATCH CORPORATION

(Company name)

for contract work at
LODI ENERGY CENTER, 12745 N. THORNTON ROAD, LODI CA 95242

(Project name and location)

have been conducted as required by the California Energy Commission Decision for the above-named project.

(Signature of officer or agent)

Dated this _____ day of _____, 20 _____.

THIS AFFIDAVIT OF COMPLIANCE SHALL BE APPENDED TO THE PROJECT SECURITY PLAN AND SHALL BE RETAINED AT ALL TIMES AT THE PROJECT SITE FOR REVIEW BY THE CALIFORNIA ENERGY COMMISSION COMPLIANCE PROJECT MANAGER.

2511882.7



Lodi Energy Center Project Participant Committee

Staff Report

AGENDA ITEM NO.: 11

Date: November 9, 2015
To: Lodi Energy Center Project Participant Committee
Subject: Approval of Assignment, Assumption and Consent Agreement and Amendment to LEC PMOA Schedule 2.00 (Fuel Supply Procurement, Delivery and Management)

Background

J.P. Morgan Ventures Energy Corporation ("J.P. Morgan") is currently the natural gas manager and imbalance natural gas supplier for the Lodi Energy Center project ("LEC"). In such capacity, J.P. Morgan currently provides firm, full requirements natural gas management services pursuant to a Master Transaction Confirmation ("Confirmation") that is appended to and made part of the Base Contract for Sale and Purchase of Natural Gas between Northern California Power Agency ("NCPA") and J.P. Morgan (the "NAESB").

Mercuria Energy Gas Trading LLC ("Mercuria") has recently acquired certain portions of J.P. Morgan's physical commodities business. As part of such transaction, Mercuria will assume responsibility for the LEC natural gas management contracts and become the new natural gas manager and imbalance natural gas supplier for LEC.

Assignment Agreement

In order to effectuate the transition between J.P. Morgan and Mercuria, J.P. Morgan must assign its rights in the Confirmation and NAESB to Mercuria. Pursuant to the NAESB, such assignment must be approved by NCPA. J.P. Morgan and Mercuria have developed the Assignment, Assumption and Consent Agreement ("Assignment Agreement") to enable the assignment of the LEC natural gas management contracts. The Assignment Agreement has been attached to this staff report for your reference.

Pursuant to the Assignment Agreement, Mercuria will assume the role and associated responsibilities as the LEC natural gas manager and imbalance natural gas supplier. As part of the assignment the Confirmation will be maintained in its current form, while certain provisions of the NAESB will be modified; specifically minor changes to certain credit provisions. In particular, Section 10.1 of the NAESB allows for a party to request performance assurances for insecurity. The NAESB uses each party's credit rating as a trigger for the other party's right to demand certain Adequate Assurances of Performance. Mercuria is not a publicly traded company and does not have a credit rating; therefore the trigger associated with adequate assurances is not applicable to Mercuria. Since Mercuria does not have a credit rating, NCPA and Mercuria will put in place a Credit Support Addendum ("CSA") as the alternative credit mechanism, and the CSA will be appended to and made part of the NAESB. Under the CSA, Mercuria's collateral requirement will be based on its exposer less a defined Collateral

Threshold to be set at \$0. All of the proposed changes to credit have been reviewed by NCPA's Risk Manager, and have been found to be acceptable to NCPA.

Amendment to LEC PMOA Agreement Schedule 2.00

The LEC PMOA Agreement Schedule 2.00 pertains to fuel supply procurement, delivery and management. The current LEC PMOA Agreement Schedule 2.00 lists J.P. Morgan as the Project Gas Supplier and Manager. The LEC PMOA Agreement Schedule 2.00 needs to be amended to list Mercuria as the Project Gas Supplier and Manager. Pursuant to LEC PMOA Article 10.1, the PPC is authorized to approve an amendment to LEC PMOA Agreement Schedule 2.00. A redlined version of LEC PMOA Agreement Schedule 2.00 has been attached to this staff report for your reference.

Fiscal Impact

Costs associated with development and negotiation of the Assignment Agreement and Amendment to LEC PMOA Agreement Schedule 2.00 are consistent with existing budget categories as approved in the NCPA annual budget. The terms and conditions under which Mercuria acts as the Project Gas Supplier and Manager remain unchanged; therefore there are not additional costs associated with this transition.

Environmental Analysis

This activity would not result in a direct or reasonably foreseeable indirect change in the physical environment and is therefore not a "project" for purposes of Section 21065 of the California Environmental Quality Act. No environmental review is necessary.

Recommendation

NCPA Staff recommends that the Lodi Energy Center Project Participant Committee:

1. Approve the Assignment, Assumption and Consent Agreement by and among J.P. Morgan, Mercuria and NCPA, including the underlying NAESB Agreement as modified; and
2. Approve an amendment to the LEC PMOA Schedule 2.00 (Fuel Supply Procurement, Delivery and Management) to list Mercuria as the Project Gas Supplier and Manager effective January 1, 2016.

Prepared by:

TONY ZIMMER
Supervisor, Industry Restructuring
and Interconnection Affairs

Attachments (6):

- Mercuria Assignment, Assumption and Consent Agreement
- Model Credit Support Addendum to the Base Contract for Sale and Purchase of Natural Gas
- Amendment to Model Credit Support Addendum ("CSA") To The Base Contract For Sale and Purchase of Natural Gas
- Base Contract for Sale and Purchase of Natural Gas--JP Morgan
- Master Transaction Confirmation-JP Morgan
- LEC PMOA Schedule 2.00 Proposed Revision

ASSIGNMENT, ASSUMPTION AND CONSENT AGREEMENT

THIS ASSIGNMENT, ASSUMPTION AND CONSENT AGREEMENT (the “*Assignment Agreement*”) is made and entered into this [] day of October, 2015 (the “*Execution Date*”) by and among **J.P. Morgan Ventures Energy Corporation** (“*Assignor*”), **Mercuria Energy Gas Trading LLC** (“*Assignee*”), **Northern California Power Agency** (“*Consenting Party*”) (Assignor, Assignee and Consenting Party are sometimes referred in this Assignment Agreement as a “*Party*” and collectively as the “*Parties*”).

WHEREAS, Assignor and Consenting Party are parties to that certain Base Contract for Sale and Purchase of Natural Gas dated June 22, 2010 entered into between Assignor and Consenting Party (together with all amendments and modifications, the “*Subject Agreement*”) (a copy of which is attached hereto at Exhibit 1);

WHEREAS, Assignor and Consenting Party are parties to certain transactions, as described on Exhibit 2 (the “*Assigned Transactions*”), each evidenced by a Confirmation (an “*Old Confirmation*”) referenced in Exhibit 2, which were entered into pursuant to the Subject Agreement;

WHEREAS, Assignor desires to assign and delegate to Assignee, from and after the Effective Time, all of its rights, duties and obligations in the Subject Agreement (except with respect to the Residual Subject Agreements, as defined below) and all of the Assigned Transactions (except with respect to the Excluded Liabilities, as defined below), and Assignee desires to accept such assignment and delegation and to assume all such rights, duties and obligations with the effect that (a) Assignee and Consenting Party are parties to the Subject Agreement for purposes of the Assigned Transactions and transactions entered by Assignee and Consenting Party after the Effective Time and (b) Assignee and Consenting Party enter into a new confirmation (each a “*New Confirmation*”) between them having terms identical to those of each of the Old Confirmations, from and after the Effective Time, in accordance with the terms hereof;

WHEREAS, Assignor and Assignee desire to obtain Consenting Party’s written consent to assign or transfer the Subject Agreement and each such Assigned Transaction (being hereinafter collectively referred to as the “*Assigned Agreements*”), and Consenting Party desires to grant such consent in accordance with the terms hereof;

WHEREAS, with effect from and including the Effective Time, the Consenting Party wishes to accept the Assignee as its sole counterparty with respect to the Assigned Agreements (except with respect to the Residual Subject Agreements) and the Assumed Liabilities; and

WHEREAS, the Parties have entered into this Assignment Agreement subject to the satisfaction of certain conditions precedent, as set forth herein.

NOW, THEREFORE, for and in consideration of the premises and the mutual covenants contained herein, and for other good and valuable consideration, the receipt, adequacy and legal sufficiency of which are hereby acknowledged, the Parties do hereby agree as follows:

Assignment of Master Form

1. **Assignment.** Effective as of the Effective Time, on the Novation Date Assignor hereby assigns to Assignee all of its right, title, benefit, privileges and interest in and to the Assigned Agreements that are to be performed or accrue on and after the Effective Time and that do not relate to a calculation period or delivery period (however defined) ending before the Effective Time. For purposes of this Assignment Agreement, “***Effective Time***” shall mean the beginning of the hour ending 0100 eastern prevailing time on the Novation Date. “***Novation Date***” shall mean a date specified in a joint written notice from Assignor and Assignee to Consenting Party, which date is not later than 45 days after the Execution Date.

2. **Assumption.** Effective as of the Effective Time, Assignee hereby accepts such assignment and assumes and agrees to observe and perform the Liabilities of Assignor under or relating to the Assigned Agreements which are to be performed or accrue on and after the Effective Time, to the extent such Liabilities arise from or relate to acts, omissions or events occurring or conditions arising on or after the Effective Time (collectively, the “***Assumed Liabilities***”). All Liabilities other than the Assumed Liabilities, including but not limited to Liabilities: (i) arising from or relating to acts, omissions or events occurring or conditions arising prior to the Effective Time under the Residual Subject Agreements (as defined in Section 5 hereof) but which have not been settled, paid or performed as of the Effective Time; or (ii) due and payable or due to be performed after the Effective Time under the Residual Subject Agreements, but which accrued with respect to or otherwise related to a calculation period or delivery period (however defined) ending prior to the Effective Time; or (iii) arising from or relating to transactions, if any, that are not Assigned Transactions (collectively, the “***Excluded Liabilities***”), shall remain and be the obligation and responsibility of Assignor, and Assignee shall not assume, discharge, perform or be responsible in any way for any Excluded Liabilities. For purposes of this Section 2, “***Liabilities***” means indebtedness, obligations, duties and other liabilities (including in respect of or arising out of any breach of contract or actual or alleged failure of Assignor to perform any obligation), whether absolute, accrued, contingent, fixed or otherwise, or whether due or to become due with respect to any one or more of the Assigned Agreements and the Assumed Liabilities.

3. **Acceptance by Consenting Party.** Effective as of and from the Effective Time, Consenting Party hereby consents to the assignment of the Assigned Agreements and accepts Assignee as the party to perform only the Assumed Liabilities of Assignor under the Assigned Agreements.

4. **Releases.**

(a) Effective as of and from the Effective Time, Consenting Party hereby releases and forever discharges Assignor and Assignor’s Guarantor(s), if any, from any and all further obligations to Consenting Party with respect to the Assumed Liabilities, including any liability of any type as a consequence of, or relating to, the Assigned Agreements, including, without limitation, all manner of action and inaction, cause or causes of action, suits, debts, dues, sums of money, claims and demands whatsoever at law or in equity arising out of, or which are in any way related to, the Assigned Agreements, provided that, for certainty, the foregoing shall not release or discharge Assignor or Assignor’s Guarantor(s), if any, in respect of the settlement, payment or performance of any Excluded Liabilities, and all such Excluded Liabilities shall remain and be the obligation and responsibility of Assignor and Assignor’s Guarantor(s), if any,

and shall be paid or performed by Assignor to the Consenting Party in accordance with the terms of the Residual Subject Agreements.

(b) Effective as of and from the Effective Time, Assignor hereby releases and forever discharges Consenting Party and Consenting Party's Guarantor(s), if any, from any and all further obligations to Assignor with respect to the Assigned Agreements and from any and all liability of any type as a consequence of, or relating to, the Assigned Agreements, including, without limitation, all manner of action and inaction, cause or causes of action, suits, debts, dues, sums of money, claims and demands whatsoever at law or in equity, arising out of or which are in any way related to, the Assigned Agreements; provided that, for certainty, the foregoing shall not release or discharge Consenting Party or Consenting Party's Guarantor(s), if any, in respect of the settlement, payment or performance of any Liabilities: (i) arising from or relating to acts, omissions or events occurring or conditions existing prior to the Effective Time under the Residual Subject Agreements but which have not been settled, paid or performed as of the Effective Time; or (ii) due and payable or due to be performed after the Effective Time under the Residual Subject Agreements, but which accrued with respect to or otherwise related to a calculation period or delivery period (however defined) ending prior to the Effective Time; or (iii) arising from or relating to transactions, if any, that are not Assigned Transactions (for avoidance of doubt, (i), (ii) and (iii) collectively constitute the "***Consenting Party Excluded Liabilities***"), and all such Consenting Party Excluded Liabilities shall remain and be the obligation and responsibility of Consenting Party and shall be paid or performed by Consenting Party to the Assignor in accordance with the terms of the Residual Subject Agreements. For purposes of this Section 4(b), "***Liabilities***" means indebtedness, obligations, duties and other liabilities (including in respect of or arising out of any breach of contract or actual or alleged failure of Consenting Party to perform any obligation), whether absolute, accrued, contingent, fixed or otherwise, or whether due or to become due with respect to the Residual Subject Agreements and the Consenting Party Excluded Liabilities.

5. **Master Agreement.** Effective at the Effective Time, Assignee and Consenting Party agree that the following amendments will be applicable to the Subject Agreement as between Assignee and Consenting Party, it being agreed that no such amendments shall be applicable to the Residual Subject Agreements as between Assignor and Consenting Party:

- a) **Assignor References.** References to Assignor are replaced in the Subject Agreement with "Mercuria Energy Gas Trading LLC", and references to "JPMorgan Chase & Co." are replaced with Mercuria Energy Group Limited".
- b) **Addresses for Notices.** The notices section under the Subject Agreement is hereby amended by replacing the notice information for Assignor with the information of Assignee set forth in Exhibit 3 attached hereto.
- c) **Master Agreement Amendments.** The following modification shall be made to the Subject Agreement:
 - (i) **Additional Events of Default:** Section 10.2 of the Cover Page to the Subject Agreement is deleted in its entirety and replaced with the following:

Section 10.2 Additional Events of Default	<input type="checkbox"/> No Additional Events of Default (default) <input checked="" type="checkbox"/> Indebtedness Cross Default <input type="checkbox"/> Party A: <u>\$50,000,000</u> <input type="checkbox"/> Party B: <u>\$50,000,000</u> <input type="checkbox"/> Transactional Cross Default <u>Specified Transactions:</u>
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- (ii) Setoff. Section 10.3.2 of the Cover Page to the Subject Agreement is amended by electing “Bilateral” setoff as indicated in the chart below.

Section 10.3.2 Other Agreement Setoffs	<input checked="" type="checkbox"/> Other Agreement Setoffs Apply (default) <input checked="" type="checkbox"/> Bilateral (default) <input type="checkbox"/> Triangular OR <input type="checkbox"/> Other Agreement Setoffs Do Not Apply
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- (iii) Financial Responsibility.

Section 10.3.2 – Section 10.3.2 of the Special Provisions to the Subject Agreement is deleted and replaced with the following sentence:

“Section 10.3.2 is hereby amended by adding in the last line after the word “parties” the following words: “solely related to the Lodi Energy Center”.

Section 10.1 – The third sentence in Section 10.1 of the Special Provisions to the Subject Agreement is deleted and replaced with the following sentence:

“A material change in the creditworthiness with respect to Party B means the Credit Rating, as set forth in the definition Credit Rating, falls below BBB or Baa2 or is no longer provided by S&P or Moody’s and Party B no longer has the legal right to demand that its members and participants adjust electric rates as necessary to fully recover the total costs Party B is obligated to pay under this Contract.”

The following sentences are added to Section 10.1 of the Special Provisions to the Subject Agreement after the third sentence:

“If the entity is rated by both S&P and Moody’s and such ratings are not equivalent, the lower of the two ratings shall determine the Credit Rating.

If the entity is rated by either S&P or Moody's, but not both, then the available rating shall determine the Credit Rating."

- (iv) **Credit Support Matters.** Amendments to certain specific provisions of the Subject Agreement are more fully set forth in Exhibit 4 attached hereto.

Effective at the Effective Time, all the Assigned Transactions shall remain subject to and continue to be governed by the Subject Agreement as amended hereby as between Assignee and Consenting Party. Assignor and Consenting Party agree that, notwithstanding the assignment to and assumption by the Assignee of the Subject Agreement, the Subject Agreement (without any of the amendments set forth herein or otherwise agreed to by Consenting Party and Assignee) (such agreement between Assignor and Consenting Party, together with any transactions entered into thereunder that are not Assigned Transactions, if any, are collectively referred to as the "**Residual Subject Agreements**") shall continue to govern the relationship between Assignor and Consenting Party with respect to the Excluded Liabilities and the Consenting Party Excluded Liabilities, and such Residual Subject Agreements shall be an independent obligation as between Assignor and Consenting Party.

In no event shall any acts or omissions occurring under the Assigned Agreements (or any subsequent transactions entered into under the Subject Agreement) as between Assignee and Consenting Party impact or otherwise have any effect on the Residual Subject Agreements, it being expressly agreed by Assignee that Consenting Party and Assignor can exercise any and all rights under the Residual Subject Agreements without the consent or approval of Assignee. In the same manner, in no event shall any acts or omissions occurring under the Residual Subject Agreements as between Assignor and Consenting Party impact or otherwise have any effect on the Assigned Agreements (or any subsequent transactions entered into under the Subject Agreement), it being expressly agreed by Assignor that Consenting Party and Assignee can exercise any and all rights under the Assigned Agreements (or any subsequent transactions entered into under the Subject Agreement) without the consent or approval of Assignor.

6. **Further Actions.** Each of the Parties hereto covenants and agrees, at its own expense, to execute and deliver, at the request of another Party hereto, such further instruments of transfer and assignment, and to take such other action, as such other Party may reasonably request to more effectively consummate the assignments and assumptions contemplated by this Assignment Agreement.

7. **Governing Law, Jurisdiction, Jury Trial Waiver.**

(a) The validity, interpretation and performance of this Assignment Agreement and each of its provisions shall be governed by the applicable laws of the State of California, without regard to its conflict of law provisions.

(b) With respect to any suit, action or proceeding relating to this Assignment Agreement (each a "**Proceeding**"), venue for any such Proceeding shall be the United States District Court, Eastern District, Sacramento Division, or in the Superior Court of the State of California in and for the County of Sacramento exclusively. The Parties hereto consent and

agree that the above-named courts shall have personal jurisdiction over the Parties in any such Proceeding and that venue is proper in such courts.

(c) Each Party waives, to the fullest extent permitted by applicable law, any right it may have to a trial by jury in any Proceeding. Each Party (i) certifies that no representative, agent or attorney of any other Party has represented, expressly or otherwise, that such other Party or Parties would not, in the event of such a Proceeding, seek to enforce the foregoing waiver and (ii) acknowledges that it and each of the other Parties hereto have been induced to enter into this Assignment Agreement by, among other things, the mutual waivers and certifications in this Section.

8. **Representations.**

(a) Each Party hereby represents and warrants to the others as of the Execution Date and as of the Effective Time that:

(i) it is duly organized, validly existing and in good standing under the laws of the jurisdiction of its formation, is duly qualified to do business in those jurisdictions in which it is necessary for the conduct of its business, except for failures which in the aggregate are not material to the other Parties, and has all requisite corporate or other similar power and authority and the legal right to own and operate its properties and to conduct its business as currently conducted;

(ii) the execution, delivery, and performance by it of this Assignment Agreement does not require any consent, license, approval or authorization of, or other action by, or any notice or filing with, any governmental entity or any other person other than such as have already been obtained;

(iii) the execution, delivery and performance by it of this Assignment Agreement are within its organizational powers, have been duly authorized by all necessary action and do not violate any of the terms and conditions in its governing documents or any government rule applicable to it or result in the breach, default or termination of any agreement to which it is a party including the Assigned Agreements (as between Assignee and Consenting Party) and the Residual Subject Agreement (as between Assignor and Consenting Party);

(iv) this Assignment Agreement has been duly executed and delivered on its behalf; constitutes its legally valid and binding obligation enforceable against it in accordance with its terms, except where enforceability may be limited or otherwise impacted by bankruptcy, insolvency or other similar laws affecting creditors' rights generally and except where enforceability is subject to the application of equitable principles or remedies;

(v) no petition or notice has been presented, no order has been presented, no order has been made and no resolution has been passed for its bankruptcy, liquidation, winding-up or dissolution, and no receiver, trustee, custodian or similar fiduciary has been appointed over the whole or any part of any of its assets or income,

and it has not received any notice that any other person has any plan or intention of, filing, making or obtaining any such petition, notice, order or resolution or of seeking the appointment of a receiver, trustee, custodian or similar fiduciary;

(vi) it is acting for its own account, and it has made its own independent decisions to enter into this Assignment Agreement and as to whether this Assignment Agreement is appropriate or proper for it based upon its own judgment and upon advice from such advisers as it has deemed necessary; and

(vii) it is not relying on any communication (written or oral) of any other Party as investment advice or as a recommendation to enter into this Assignment Agreement; it being understood that information and explanations related to the terms and conditions of this Assignment Agreement shall not be considered to be investment advice or a recommendation to enter into this Assignment Agreement. No communication (written or oral) received from any other Party shall be deemed to be an assurance or guarantee as to the expected results of this Assignment Agreement.

(b) Each of the Assignor and Consenting Party hereby represents and warrants to each other and to the Assignee that:

(i) as of the Execution Date and as of the Effective Time, it has made no prior transfer (whether by way of security or otherwise) of the Subject Agreement or any interest or obligation in or under the Subject Agreement or in respect of any of the Assigned Transactions;

(ii) as of the Effective Time, all obligations of the Assignor and the Consenting Party under each of the Assigned Transactions required to be performed on or before the Novation Date have been fulfilled; and

(iii) as of the Execution Date and as of the Effective Time, no event of default (or event which would with the passage of time become an event of default) with respect to it has occurred and is continuing under, as applicable, any of the Assigned Agreements (including the Subject Agreement) or the Residual Subject Agreements (as between Assignor and Consenting Party).

9. **Entire Agreement.** This Assignment Agreement, and all exhibits and schedules hereto, represents the entire understanding and agreement between the Parties with respect to the subject matter hereof and supersedes all prior oral and written and all contemporaneous oral negotiations, commitments and understandings between the Parties.

10. **No Third Party Beneficiaries.** This Assignment Agreement is entered into for the sole benefit of the Parties, and except as specifically provided herein, no other person shall be a direct or indirect beneficiary of, or shall have any direct or indirect cause of action or claim in connection with, this Assignment Agreement.

11. **Counterparts.** The Parties agree that this Assignment Agreement may be executed in counterparts and that, when taken together, such counterparts constitute but one agreement.

[Signature page to follow]

IN WITNESS WHEREOF, the Parties have executed this Assignment Agreement as of the date first above written.

Assignor:

J.P. Morgan Ventures Energy Corporation

By: _____
Name: _____
Title: _____

Assignee:

Mercuria Energy Gas Trading LLC

By: _____
Name: _____
Title: _____

Consenting Party:

Northern California Power Agency

By: _____
Name: _____
Title: _____

Signature Page to Assignment Agreement

EXHIBIT 1

Subject Agreement(s)

See Attached Documents

EXHIBIT 2

Assigned Transactions

See attached Transaction Confirmation

EXHIBIT 3

Assignee Contact Information

NOTICES AND CORRESPONDENCE:

Mailing Address: Mercuria Energy Gas Trading LLC
20 E. Greenway Plaza, Suite 650
Houston, Texas 77046
Attention: Contract Administration
Telephone No.: (832) 209-2400
Facsimile No.: (832) 209-2401

With a copy to:

Mailing Address: Mercuria Energy Gas Trading LLC
20 E. Greenway Plaza, Suite 650
Houston, Texas 77046
Attention: Legal Department
Telephone No.: (832) 209-2400
Facsimile No.: (832) 209-2401

PHYSICAL CONFIRMATIONS:

Mailing Address: Mercuria Energy Gas Trading LLC
20 E. Greenway Plaza, Suite 650
Houston, Texas 77046
Attention: Physical Confirmations
Telephone No.: (832) 209-2495
Facsimile No.: (832) 209-2421
Email: physconfirmsna@mercuria.com

FINANCIAL CONFIRMATIONS:

Mailing Address: Mercuria Energy Gas Trading LLC
20 E. Greenway Plaza, Suite 650
Houston, Texas 77046
Attention: Backoffice
Telephone No.: +31 30 254 8793
Facsimile No.: +31 30 254 1126
Email: backoffice@mercuria.com

INVOICE & SETTLEMENTS:

Mailing Address: Mercuria Energy Gas Trading LLC
20 E. Greenway Plaza, Suite 650
Houston, Texas 77046
Attention: Physical Settlements
Telephone No.: (832) 209-2494
Facsimile No.: (832) 209-2401
Email: physsettlementsna@mercuria.com

SCHEDULING:

Mailing Address: Mercuria Energy Gas Trading LLC
20 E. Greenway Plaza, Suite 650
Houston, Texas 77046

East Desk:

Attention: Joe Casas
Telephone No.: (832) 531-7565
Email: jcasas@mercuria.com

West Desk:

Attention: Karen Glenny
Telephone No.: (832) 531-7587
Email: kglenny@mercuria.com

BANKING INSTRUCTIONS:

Societe Generale New York Branch
245 Park Avenue
New York, NY 10167
Swift# SOGEUS33
CHIPS: 422
ABA: 026004226
Account: 203378
Other Details: Credit to Mercuria Energy Gas Trading LLC

DUNS No. 079486733

EXHIBIT 4

See attached Credit Support Addendum

Model Credit Support Addendum to the Base Contract for Sale and Purchase of Natural Gas

This Model Credit Support Addendum ("CSA") is entered into as of this _____ day of _____, 2015.

The parties to this CSA are the following:

Party A

Mercuria Energy Gas Trading LLC, a limited liability company organized under the laws of the State of Delaware ("Party A")

Base Contract Date: June 22, 2010
Base Contract Number: _____

Credit Related Notices:

Attn: Credit Department (Jason Sohmer)
Phone: (832) 209-2462
Email Address: jsohmer@mercuria.com

Wire Transfer or ACH Numbers (if applicable):

Bank: Societe Generale, New York Branch
ABA: 026004226
ACCT: 203378
Other Details: CHIPS: 422 SWIFT: SOGEUS33

Party B

Northern California Power Agency, a public agency in the State of California ("Party B")

Base Contract Date: June 22, 2010
Base Contract Number: _____

Attn: Credit Department
Phone: 916-781-4271
E-mail Address: rui.dai@ncpa.com

Bank: U.S. Bank
ABA: 121122676
ACCT: 1-534-0216-2744
Other Details: None

This CSA is published by the North American Energy Standards Board, Inc. The parties hereby agree to the following provisions offered in said CSA Elections.

Credit Support Provider	Party A : Mercuria Energy Group Limited Party B : N/A	Interest Rate	Federal Funds Effective Rate - the rate for that day opposite the caption "Federal Funds (Effective)" as set forth in the weekly statistical release designated as H.15(519), or any successor publication, published by the Board of Governors of the Federal Reserve System.
Eligible Collateral	<div style="display: flex; justify-content: space-between;"> <div> Party A: <input checked="" type="checkbox"/> Cash <input checked="" type="checkbox"/> Letters of Credit <input type="checkbox"/> Other _____% Party B: <input checked="" type="checkbox"/> Cash <input checked="" type="checkbox"/> Letters of Credit <input type="checkbox"/> Other _____% * - See Definition of Valuation Percentage. </div> <div style="text-align: right;"> Valuation Percentage 100% 100%* _____% 100% 100%* _____% </div> </div>	Minimum Transfer Amount	Party A: \$10,000 Party B: \$10,000
		Letter of Credit Issuer Requirements	A major U.S. commercial bank or a U.S. branch office of a foreign bank whose Credit Rating is at least (a) "A-" by S&P and "A3" by Moody's, if such entity is rated by both S&P and Moody's, or (b) "A-" by S&P or "A3" by Moody's, if such entity is rated by S&P or Moody's but not both, and which bank is otherwise reasonably acceptable to the party in whose favor such Letter of Credit is issued and is not a party or an Affiliate of the Pledging Party.
Transfer Method for Other Eligible Collateral	Party A: N/A Party B: N/A	Notification Time Close of Business	<input checked="" type="checkbox"/> 1 p.m. Eastern Prevailing Time <input type="checkbox"/> Other: 2:00 p.m. New York Time on a Business Day. <input checked="" type="checkbox"/> 5 p.m. Eastern Prevailing Time <input type="checkbox"/> Other: 5:00 p.m. Pacific Prevailing Time
Collateral Threshold	<input type="checkbox"/> See attached Rating Matrix <input type="checkbox"/> Flat amounts Party A: \$0 Party B: \$10,000,000	Rounding Amount	Party A: \$100,000 Party B: \$100,000

Eligibility Requirements to Hold Cash	A party shall be entitled to hold Cash provided that the following conditions are satisfied: (1) it is not a Defaulting Party; and (2) Cash shall be held only in any jurisdiction within the United States.	Custodian Requirements	A Bank (as defined in the Federal Deposit Insurance Act) whose Credit Rating is at least A by S&P and A2 by Moody's
■ OPTION A for CSA Paragraphs 4, 5 and 6 – <u>OR</u> – □ OPTION B for CSA Paragraphs 4, 5 and 6 (Exhibit A for elections is attached.) Special Provisions Number of sheets attached: Amendment to CSA, Two (2) Pages			

IN WITNESS WHEREOF, the parties hereto have executed the first page of this CSA in duplicate.

MERCURIA ENERGY GAS TRADING LLC

Party A:

NORTHERN CALIFORNIA POWER AGENCY

Party B:

By _____
Name:
Title:

By _____
Name: Randy S. Howard
Title: General Manager

GENERAL TERMS AND CONDITIONS
of the
MODEL CREDIT SUPPORT ADDENDUM
to the
BASE CONTRACT FOR PURCHASE AND SALE OF NATURAL GAS

Paragraph 1. Purpose

This CSA constitutes an Addendum to that certain Base Contract for Sale and Purchase of Natural Gas, as identified on the front page herein, between the parties ("Base Contract"), and supplements, forms part of, and amends the Base Contract affecting transactions thereunder. Capitalized terms used in this CSA that are not herein defined will have the meanings ascribed to them in the Base Contract. In the event of a conflict between the terms of this CSA and the Base Contract, the terms of this CSA shall apply for the purposes of this CSA.

The terms set forth below shall have the meanings ascribed to them below. Other terms are also defined elsewhere in the Base Contract and shall have the meanings ascribed to them therein.

Paragraph 2. Definitions.

As used in this CSA:

"Cash" shall mean United States Dollars.

"Close of Business" shall have the meaning set forth in the elections on Page 1 herein.

"Collateral Requirement" shall have the meaning set forth in Paragraph 3 herein.

"Collateral Threshold" shall mean, with respect to a party, the amount, if any, set forth in the elections on Page 1 herein for such party; provided, however, that the Collateral Threshold for a party that is a Defaulting Party shall be zero (0) upon the occurrence and during the continuance of an Event of Default.

"Credit Support Default" shall have the meaning set forth in Paragraph 10 herein.

"Credit Support Provider", if applicable, shall mean the entity set forth in the elections on Page 1 herein.

"Custodian" shall mean an entity that meets the Custodian Requirements set forth in the elections on Page 1 herein.

"Defaulting Party" shall have the meaning set forth in Paragraph 10 herein.

"Demand Date" shall mean, with respect to a party's (i) demand for the Transfer of Eligible Collateral pursuant to Paragraph 4 herein, (ii) demand for Reduction or Substitution of Posted Collateral pursuant to Paragraph 5 herein, and/or (iii) demand for Disputed Calculations pursuant to Paragraph 6 herein:

(a) the date on which a demand is made, if such demand is received prior to the Notification Time on a Business Day; or

(b) the following Business Day if a demand is made on a non-Business Day or after the Notification Time on a Business Day.

"Eligible Collateral" shall have the meaning set forth in the elections on Page 1 herein.

"Exposure" shall mean the Net Settlement Amount, as calculated by the Secured Party in good faith and in a commercially reasonable manner, that the Pledging Party would owe to the Secured Party if an Early Termination Date had been designated as of the date of such calculation as provided for in Section 10 of the Base Contract; provided that such calculations shall be at the mid point between the bid price and the offer price.

"Interest Amount" shall mean the aggregate sum of the amounts of interest calculated for each day in that Interest Period on the principal amount of Cash held by the Secured Party on that day, determined for each such day as follows: (x) the amount of Cash on that day; multiplied by (y) the Interest Rate for that day; divided by (z) 360.

"Interest Period" shall mean the period from (and including) the last Business Day on which an Interest Amount was Transferred (or if no Interest Amount has yet been Transferred, the Business Day on which Cash was Transferred to the Secured Party) to (but excluding) the Business Day on which the current Interest Amount is to be Transferred.

"Interest Rate" shall have the meaning set forth in the elections on Page 1 herein.

"Letter of Credit" shall have the meaning set forth in Paragraph 7 (a) herein.

"Letter of Credit Default" shall have the meaning set forth in Paragraph 7(b) herein.

"Minimum Transfer Amount" shall mean the amount set forth in the elections on Page 1 herein for a party.

"Notification Time" shall have the meaning set forth in the elections on Page 1 herein.

"Notice" shall have the meaning set forth in Paragraph 9 herein.

"Pledging Party" shall have the meaning set forth in Paragraph 3 herein.

"Posted Collateral" shall mean (1) all Eligible Collateral and all proceeds thereof that have been Transferred to or received by the Secured Party hereunder and not Transferred to the Pledging Party pursuant to Paragraph 4 or released by the Secured Party, (2) any Interest Amount or portion thereof held by the Secured Party and not Transferred pursuant to Paragraph 8(c), and (3) any Cash received and held by the Secured Party after drawing on any Letter of Credit.

"Reference Market Maker" shall mean a leading dealer in the relevant market that is not an affiliate of either party selected by a party determining any disputed calculations pursuant to Paragraph 6 herein in a commercially reasonable manner from among dealers which satisfy all the criteria that such party applies generally at the time in deciding whether to offer or to make an extension of credit.

"Rounding Amount" shall mean the amount set forth in the elections on Page 1 herein for a party.

"Secured Party" shall have the meaning set forth in Paragraph 3(b) herein.

"Letter of Credit Issuer Requirements" shall have the meaning set forth in the elections on Page 1 herein.

"Transfer" or "Transferred" shall mean, with respect to any Eligible Collateral, Posted Collateral, or Interest Amount, and in accordance with the instructions of the appropriate party:

- (i) in the case of Cash, payment or delivery by wire transfer in immediately available federal funds into one or more bank accounts set forth on Page 1 herein (or as otherwise specified in a demand Notice);
- (ii) in the case of Letters of Credit, delivery of the Letter of Credit by the Pledging Party to the Secured Party at the address specified in this CSA (or as otherwise specified in a demand Notice) or delivery of an executed amendment to such Letter of Credit (extending the term or increasing the amount available to the Secured Party thereunder) by the Pledging Party, to the Secured Party; and for purposes of Paragraph 5, return of the Letter of Credit by the Secured Party to the Pledging Party or delivery of an executed amendment (which amendment shall be given by the Pledging Party to the Secured Party) to the Letter of Credit in form and substance satisfactory to the Secured Party, reducing the amount available to the Secured Party thereunder, in each case to the address specified in the applicable demand letter or this CSA; and
- (iii) in the case of any other Eligible Collateral, the Transfer methodology specified by the parties in the elections on Page 1 herein.
- (iv) in any case in which Eligible Collateral or Posted Collateral is in the form of a Letter of Credit, the deadlines set forth in Paragraph 7 (h).
- (iv) In connection with each Transfer of any Eligible Collateral to the Secured Party pursuant to this CSA, the Secured Party will, upon request of the Pledging Party, provide a receipt in form and substance reasonably satisfactory to the Pledging Party showing the Eligible Collateral

Transferred to it. In connection with each Transfer of any Posted Collateral to the Pledging Party pursuant to this CSA, the Pledging Party will, upon request of the Secured Party, provide a receipt in form and substance reasonably satisfactory to the Secured Party showing the Posted Collateral Transferred to it.

"Valuation Percentage" shall mean the percentage set forth in the elections on Page 1 herein for each form of Eligible Collateral; provided with respect to Letters of Credit the Valuation Percentage shall be 100% unless either (i) a Letter of Credit Default shall apply with respect to such Letter of Credit or (ii) 20 or fewer Business Days remain prior to the expiration of such Letter of Credit, in which case the Valuation Percentage shall be zero (0).

"Value" shall mean the Valuation Percentage multiplied by the amount of Posted Collateral; provided with respect to Letters of Credit, such amount shall be the amount then available to be unconditionally drawn under the Letter of Credit held by the Secured Party.

Paragraph 3. Calculation of Collateral Requirement.

On any Business Day, the "Collateral Requirement" for a party (the "Pledging Party") means the Secured Party's Exposure minus the sum of:

- (a) the Pledging Party's Collateral Threshold; plus
- (b) the Value of all Posted Collateral then held by the party other than the Pledging Party (the "Secured Party"), and any accrued Interest Amount that has not yet been Transferred to the Pledging Party;

provided, however, that, the Collateral Requirement of the Pledging Party will be deemed to be zero (0) whenever the calculation of such Pledging Party's Collateral Requirement yields a number less than zero (0).

OPTION A: Paragraphs 4, 5, and 6

If the parties select Option A of the elections on Page 1 herein, the following Paragraphs 4, 5 and 6 shall apply.

Paragraph 4. Transfer of Eligible Collateral.

On any Business Day on which (i) no Credit Support Default with respect to the Secured Party has occurred and is continuing, (ii) no Event of Default with respect to the Secured Party has occurred and is continuing, (iii) no Early Termination Date has occurred or been designated by the Pledging Party for which there exist any unsatisfied payment obligations under the Base Contract, and (iv) the Pledging Party's Collateral Requirement equals or exceeds its Minimum Transfer Amount, the Secured Party may demand, by Notice to the Pledging Party, that the Pledging Party Transfer to the Secured Party, and the Pledging Party shall Transfer or cause to be Transferred to the Secured Party, Eligible Collateral for the benefit of the Secured Party having a Value on the date of Transfer at least equal to the Pledging Party's Collateral Requirement. The amount of Eligible Collateral required to be Transferred hereunder shall be rounded up to the nearest integral multiple of the Rounding Amount. Unless otherwise agreed to in writing by the parties, the Pledging Party shall Transfer the Eligible Collateral by the Close of Business on the Business Day following the Demand Date. Any Letter of Credit or other type of Eligible Collateral (other than Cash) shall be Transferred to the address specified in this CSA or to such address as the Secured Party shall specify in its demand, pursuant to this Paragraph 4. Any demand made by the Secured Party pursuant to this Paragraph 4 shall specify wire transfer information for the account(s) to which Eligible Collateral in the form of Cash shall be Transferred if different than that set forth in this CSA. Notwithstanding anything to the contrary in this CSA, in the event of a Credit Support Default or an Event of Default, with respect to the Pledging Party which gives rise to an obligation to Transfer Eligible Collateral, the Pledging Party shall have no obligation to Transfer such Eligible Collateral if such event is cured or otherwise no longer exists prior to the time that such Eligible Collateral is required to be provided hereunder.

Paragraph 5. Reduction and Substitution of Posted Collateral.

- (a) On any Business Day a Pledging Party may demand, by Notice to the Secured Party, a reduction in the amount of Posted Collateral previously provided by the Pledging Party for the benefit of the Secured Party, and the Secured Party shall comply with said demand, provided that after giving effect to the demanded reduction in Posted Collateral, (i) the Pledging Party shall have a Collateral Requirement of zero (0) as of the date the Secured Party would be required to return the requested Posted Collateral, (ii) no Credit Support Default with respect to the Pledging Party has occurred and is continuing, (iii) no Event of Default with respect to the Pledging Party has occurred and is continuing, and (iv) no Early Termination Date has occurred or been designated by the Secured Party

for which there exist any unsatisfied payment obligations under the Base Contract. The amount of the Posted Collateral reduction shall be made by the Secured Party if such amount equals or exceeds the Secured Party's Minimum Transfer Amount; provided however, such amount actually returned by the Secured Party shall be rounded down to the nearest integral multiple of the Rounding Amount. Unless otherwise agreed in writing by the parties, the Secured Party shall effect a permitted reduction in Posted Collateral by the Close of Business on the Business Day following the Demand Date for such reduction. If a permitted reduction in Posted Collateral is to be effected by a reduction in the amount that may be drawn under an outstanding Letter of Credit previously issued for the benefit of the Secured Party, the Secured Party shall promptly take such action as is reasonably necessary to cooperate with the Pledging Party to effectuate such reduction.

(b) Except when (i) a Credit Support Default with respect to the Pledging Party has occurred and is continuing, or (ii) an Event of Default with respect to the Pledging Party has occurred and is continuing, or (iii) an Early Termination Date has occurred or been designated by the Secured Party for which there exist any unsatisfied payment obligation under the Base Contract, the Pledging Party may substitute for existing Posted Collateral new Eligible Collateral of equal or greater Value (provided that, if such substitute Eligible Collateral is of a type not designated as Eligible Collateral in the elections on Page 1 herein, then the substitution may not occur unless the Secured Party consents to such substitution). Upon the Transfer to the Secured Party of the substitute Eligible Collateral, the Secured Party shall Transfer the relevant replaced Posted Collateral (as specified by the Pledging Party) to the Pledging Party by the Close of Business on the second Business Day after such Transfer has been effected. Notwithstanding anything herein to the contrary, no such substitution shall be permitted unless (x) the substitute Eligible Collateral is Transferred to the Secured Party prior to, the release of the Posted Collateral to be returned to the Pledging Party and, if applicable, the security interest in, and lien upon, such substituted Eligible Collateral granted pursuant hereto in favor of the Secured Party shall have been perfected as required by applicable law and shall constitute a first priority perfected security interest therein and general first lien thereon, and (y) after giving effect to such substitution, the Value of such substitute Eligible Collateral, together with all other Posted Collateral held by the Secured Party, shall equal or exceed the Pledging Party's Collateral Requirement. Each substitution of Eligible Collateral shall constitute a representation, warranty and agreement by the Pledging Party that the substituted Eligible Collateral shall be subject to and governed by the terms and conditions of this CSA, including without limitation and if applicable, the security interest in, general first lien on and right of offset against, such substituted Eligible Collateral granted pursuant to Paragraph 13(a) in favor of the Secured Party.

(c) The Transfer of any Posted Collateral by the Secured Party to the Pledging Party in accordance with this Paragraph 5 shall be deemed a release by the Secured Party of its security interest, general first lien and right of offset granted pursuant to Paragraph 13(a) hereof only with respect to such returned Posted Collateral.

Paragraph 6. Disputed Calculations.

(a) If the Pledging Party disputes the amount of Eligible Collateral requested by the Secured Party and such dispute relates to the amount of the Exposure as determined by the Secured Party, then the Pledging Party shall (i) notify the Secured Party of the existence and nature of the dispute not later than the Close of Business on the Demand Date, and (ii) Transfer Eligible Collateral to or for the benefit of the Secured Party in accordance with Paragraph 4 and in an amount equal to the Pledging Party's own calculation of its Collateral Requirement as determined, in accordance with Paragraph 3. Such calculation shall be made in good faith and a commercially reasonable manner that is consistent with Section 10 of the Base Contract. In all such cases, the parties thereafter shall promptly consult with each other in order to reconcile the two conflicting calculations. If the parties have not been able to resolve their dispute on or before the Notification Time on the second Business Day following the Demand Date, then the amount of the Exposure shall be recalculated with each party requesting quotations from one (1) Reference Market-Maker by the Notification Time on the third (3rd) Business Day following the Demand Date (taking the arithmetic average of those quotations obtained to obtain the average Exposure, provided, that, if only one (1) quotation can be obtained, then that quotation shall be used and if no quotations can be obtained, then the Secured Party's calculation shall control) for the purpose of recalculating the Exposure of each transaction in respect of which the parties disagree as to the Exposure thereof. The Pledging Party shall inform the Secured Party of the quotation it has obtained, if any, by the Notification Time on the third (3rd) Business Day following the Demand Date. The Secured Party shall inform the Pledging Party of the results of such recalculation in reasonable detail by the Notification Time on the fourth (4th) Business Day following the Demand Date. Eligible Collateral shall thereupon be provided, returned, or reduced, if necessary, by the Close of Business on the fifth (5th) Business Day following the Demand Date. If the Pledging Party fails to dispute the amount of the Collateral requirement within the time period specified above, then the Pledging Party shall Transfer or cause to be Transferred to the Secured Party, Eligible Collateral for the benefit of the Secured Party having a Value on the date of Transfer at least equal to the Pledging Party's Collateral Requirement, as originally demanded by the Secured Party.

(b) If the Secured Party disputes the amount of Eligible Collateral to be reduced by the Secured Party and such dispute relates to the amount of the Exposure claimed by the Pledging Party, then the Secured Party shall (i) notify

the Pledging Party of the existence and nature of the dispute by the Close of Business on the Demand Date for such reduction, and (ii) effect the reduction of Eligible Collateral to or for the benefit of the Pledging Party in accordance with Paragraph 5 and in an amount equal to the Secured Party's own estimate, made in a commercially reasonable manner, of the Pledging Party's Collateral Requirement as determined in accordance with Paragraph 3. In all such cases, the parties thereafter shall promptly consult with each other in order to reconcile the two conflicting amounts. If the parties have not been able to resolve their dispute on or before the Notification Time on the second (2nd) Business Day following the Demand Date for such reduction, then the Secured Party's Exposure shall be recalculated by each party requesting quotations from one (1) Reference Market-Maker by the Notification Time on the third (3rd) Business Day following the Demand Date for such reduction (taking the arithmetic average of those quotations obtained to obtain the average Exposure; provided, that, if only one (1) quotation can be obtained, then that quotation shall be used and if no quotations can be obtained, then the Secured Party's calculations shall control) for the purpose of recalculating the Exposure of each transaction in respect of which the parties disagree as to the Exposure thereof. The Pledging Party shall inform the Secured Party of the quotation it has obtained, if any, by the Notification Time on the third (3rd) Business Day after the Demand Date. The Secured Party shall inform the Pledging Party of the results of such recalculation in reasonable detail by the Notification Time on the fourth (4th) Business Day after the Demand Date for such reduction. Eligible Collateral shall thereupon be provided, returned, or reduced, if necessary, by the Close of Business on the fifth (5th) Business Day after the Demand Date for such reduction. If the Secured Party fails to dispute the amount of the demanded reduction within the time period specified above, then the Secured Party shall Transfer or cause to be Transferred to the Pledging Party, Eligible Collateral for the benefit of the Pledging Party having a Value on the date of Transfer at least equal to the Pledging Party's demanded reduction.

OPTION B: Paragraphs 4, 5, and 6

If the parties select Option B of the elections on Page 1 herein, the following Paragraphs 4, 5 and 6 and the related timing requirements and party information set forth in the Exhibit A to this CSA shall apply.

Paragraph 4. Transfer of Eligible Collateral.

On any Business Day on which (i) no Credit Support Default with respect to the Secured Party has occurred and is continuing, (ii) no Event of Default with respect to the Secured Party has occurred and is continuing, (iii) no Early Termination Date has occurred or been designated by the Pledging Party for which there exist any unsatisfied payment obligations under the Base Contract, and (iv) the Pledging Party's Collateral Requirement equals or exceeds its Minimum Transfer Amount, the Secured Party may demand, by Notice to the Pledging Party, that the Pledging Party Transfer to the Secured Party, and the Pledging Party shall Transfer or cause to be Transferred to the Secured Party, Eligible Collateral for the benefit of the Secured Party having a Value on the date of Transfer at least equal to the Pledging Party's Collateral Requirement. The amount of Eligible Collateral required to be Transferred hereunder shall be rounded up to the nearest integral multiple of the Rounding Amount. Unless otherwise agreed to in writing by the parties, the Pledging Party shall Transfer the Eligible Collateral by the Close of Business on the ('A') Business Day following the Demand Date. Any Letter of Credit or other type of Eligible Collateral (other than Cash) shall be Transferred to the address specified in this CSA or to such address as the Secured Party shall specify in its demand, pursuant to this Paragraph 4. Any demand made by the Secured Party pursuant to this Paragraph 4 shall specify wire transfer information for the account(s) to which Eligible Collateral in the form of Cash shall be Transferred if different then that set forth in this CSA. Notwithstanding anything to the contrary in this CSA, in the event of a Credit Support Default or an Event of Default, with respect to the Pledging Party which gives rise to an obligation to Transfer Eligible Collateral, the Pledging Party shall have no obligation to Transfer such Eligible Collateral if such event is cured or otherwise no longer exists prior to the time that such Eligible Collateral is required to be provided hereunder.

Paragraph 5. Reduction and Substitution of Posted Collateral.

(a) On any Business Day a Pledging Party may demand, by Notice to the Secured Party, a reduction in the amount of Posted Collateral previously provided by the Pledging Party for the benefit of the Secured Party, and the Secured Party shall comply with said demand, provided that after giving effect to the demanded reduction in Posted Collateral, (i) the Pledging Party shall have a Collateral Requirement of zero (0) as of the date the Secured Party would be required to return the requested Posted Collateral; (ii) no Credit Support Default with respect to the Pledging Party has occurred and is continuing; (iii) no Event of Default with respect to the Pledging Party has occurred and is continuing; and (iv) no Early Termination Date has occurred or been designated by the Secured Party for which there exist any unsatisfied payment obligations under the Base Contract. The amount of the Posted Collateral reduction shall be made by the Secured Party if such amount equals or exceeds the Secured Party's Minimum Transfer Amount; provided however, such amount actually returned by the Secured Party shall be rounded down to the nearest integral multiple of the Rounding Amount. Unless otherwise agreed in writing by the parties, the Secured Party shall effect a permitted reduction in Posted Collateral by the Close of Business on the ('B') Business Day following the Demand Date for such reduction. If a permitted reduction in Posted Collateral is to be effected by a

reduction in the amount that may be drawn under an outstanding Letter of Credit previously issued for the benefit of the Secured Party, the Secured Party shall promptly take such action as is reasonably necessary to cooperate with the Pledging Party to effectuate such reduction.

(b) Except when (i) a Credit Support Default with respect to the Pledging Party has occurred and is continuing, or (ii) an Event of Default with respect to the Pledging Party has occurred and is continuing or (iii) an Early Termination Date has occurred or been designated by the Secured Party for which there exist any unsatisfied payment obligation under the Base Contract, the Pledging Party may substitute for existing Posted Collateral new Eligible Collateral of equal or greater Value on the ('C') Business Day following the Demand Date thereof (provided that, if such substitute Eligible Collateral is of a type not designated as Eligible Collateral in the elections on Page 1 herein, then the substitution may not occur unless the Secured Party consents to such substitution). Upon the Transfer to the Secured Party and/or its Custodian of the substitute Eligible Collateral, the Secured Party and/or its Custodian shall Transfer the relevant replaced Posted Collateral (as specified by the Pledging Party) to the Pledging Party by the Close of Business on the ('D') Business Day after such Transfer has been effected. Notwithstanding anything herein to the contrary, no such substitution shall be permitted unless (x) the substitute Eligible Collateral is Transferred to the Secured Party and/or its Custodian simultaneously with, or has been Transferred to the Secured Party and/or its Custodian prior to, the release of the Eligible Collateral to be returned to the Pledging Party and, if applicable, the security interest in, and lien upon, such substituted Eligible Collateral granted pursuant hereto in favor of the Secured Party shall have been perfected as required by applicable law and shall constitute a first priority perfected security interest therein and general first lien thereon, and (y) after giving effect to such substitution, the Value of such substitute Eligible Collateral, together with all other Posted Collateral held by the Secured Party, shall equal or exceed the Pledging Party's Collateral Requirement. Each substitution of Eligible Collateral shall constitute a representation, warranty and agreement by the Pledging Party that the substituted Eligible Collateral shall be subject to and governed by the terms and conditions of this CSA, including without limitation and if applicable, the security interest in, general first lien on and right of offset against, such substituted Eligible Collateral granted pursuant to Paragraph 13(a) in favor of the Secured Party.

(c) The Transfer of any Eligible Collateral by the Secured Party and/or its Custodian to the Pledging Party in accordance with this Paragraph 5 shall be deemed a release by the Secured Party of its security interest, general first lien and right of offset granted pursuant to Paragraph 13(a) hereof only with respect to such returned Eligible Collateral.

Paragraph 6. Disputed Calculations.

(a) If the Pledging Party disputes the amount of Eligible Collateral requested by the Secured Party and such dispute relates to the amount of the Exposure as determined by the Secured Party, then the Pledging Party shall (i) notify the Secured Party of the existence and nature of the dispute not later than the Close of Business on the ('A') Business Day following the Demand Date that the demand for Eligible Collateral is made by the Secured Party pursuant to Paragraph 4, and (ii) Transfer Eligible Collateral to or for the benefit of the Secured Party in accordance with Paragraph 4 and in an amount equal to the Pledging Party's own calculation of its Collateral Requirement, in accordance with Paragraph 3. Such calculation shall be made in good faith and a commercially reasonable manner that is consistent with Section 10 of the Base Contract. In all such cases, the parties thereafter shall promptly consult with each other in order to reconcile the two conflicting calculations. If the parties have not been able to resolve their dispute on or before the Notification Time on the ('E') Business Day following the Demand Date, then the amount of the Exposure shall be recalculated with each party requesting quotations from one (1) Reference Market-Maker by the Notification Time on the ('F') Business Day following the Demand Date (taking the arithmetic average of those quotations obtained to obtain the average Exposure, provided, that, if only one (1) quotation can be obtained, then that quotation shall be used and if no quotations can be obtained, then the Secured Party's calculation shall control) for the purpose of recalculating the Exposure of each transaction in respect of which the parties disagree as to the Exposure thereof. The ('A1') Party shall inform the ('A2') Party of the quotation it has obtained, if any, by the Notification Time on the ('G') Business Day following the Demand Date. The ('A3') Party shall inform the ('A4') Party of the results of such recalculation in reasonable detail by the Notification Time on the ('H') Business Day following the Demand Date. Eligible Collateral shall thereupon be provided, returned, or reduced, if necessary, by the Close of Business on the ('I') Business Day following the Demand Date. If the Pledging Party fails to dispute the amount of the Collateral requirement within the time period specified above, then the Pledging Party shall Transfer or cause to be Transferred to the Secured Party, Eligible Collateral for the benefit of the Secured Party having a Value on the date of Transfer at least equal to the Pledging Party's Collateral Requirement, as demanded by the Secured Party.

(b) If the Secured Party disputes the amount of Eligible Collateral to be reduced by the Secured Party and such dispute relates to the amount of the Exposure claimed by the Pledging Party, then the Secured Party shall (i) notify the Pledging Party of the existence and nature of the dispute by the Close of Business on the ('J') Business Day following the Demand Date for such reduction, and (ii) effect the reduction of Eligible Collateral to or for the benefit of the Pledging Party in accordance with Paragraph 5 and in an amount equal to the Secured Party's own estimate,

made in a commercially reasonable manner, of the Pledging Party's Collateral Requirement in accordance with Paragraph 3. In all such cases, the parties thereafter shall promptly consult with each other in order to reconcile the two conflicting amounts. If the parties have not been able to resolve their dispute on or before the Notification Time on the ('K') Business Day following the Demand Date for such reduction, then the Secured Party's Exposure shall be recalculated by each party requesting quotations from one (1) Reference Market-Maker by the Notification Time on the ('L') Business Day following the Demand Date for such reduction (taking the arithmetic average of those quotations obtained to obtain the average Exposure; provided, that, if only one (1) quotation can be obtained, then that quotation shall be used and if no quotations can be obtained, then the Pledging Party's calculations shall control) for the purpose of recalculating the Exposure of each transaction in respect of which the parties disagree as to the Exposure thereof. The ('A5') Party shall inform the ('A6') Party of the quotation it has obtained, if any, by the Notification Time on the ('M') Business Day after the Demand Date. The ('A7') Party shall inform the ('A8') Party of the results of such recalculation in reasonable detail by the Notification Time on the ('N') Business Day after the Demand Date for such reduction. Eligible Collateral shall thereupon be provided, returned, or reduced, if necessary, by the Close of Business on the ('O') Business Day after the Demand Date for such reduction. If the Secured Party fails to dispute the amount of the demanded reduction within the time period specified above, then the Secured Party shall Transfer or cause to be Transferred to the Pledging Party, Eligible Collateral for the benefit of the Pledging Party having a Value on the date of Transfer at least equal to the Pledging Party's demanded reduction.

Paragraph 7. Letters of Credit.

Eligible Collateral provided in the form of a Letter of Credit shall be subject to the following provisions.

- (a) Each "Letter of Credit" shall be an irrevocable, transferable, standby letter of credit, issued by an entity that meets the requirements of a Letter of Credit Issuer Requirements set forth in the elections on Page 1 herein in a form reasonably acceptable to the Secured Party.
- (b) "Letter of Credit Default" shall mean with respect to an outstanding Letter of Credit that is held by the Secured Party as Posted Collateral the occurrence of any of the following events: (i) the issuer of such Letter of Credit shall fail to meet the Letter of Credit Issuer Requirements set forth in the elections on Page 1 herein, (ii) the issuer of such Letter of Credit goes bankrupt; (iii) the issuer of the Letter of Credit shall fail to comply with or perform its obligations under such Letter of Credit if such failure shall be continuing after the lapse of any applicable grace period; (iv) the issuer of such Letter of Credit shall disaffirm, disclaim, repudiate or reject, in whole or in part, or challenge the validity of, such Letter of Credit; or (v) such Letter of Credit shall expire or terminate, or shall fail or cease to be in full force and effect (other than in accordance with its terms) prior to the satisfaction of all obligations of the Pledging Party under each transaction to which such Letter of Credit shall relate without the written consent of the other party; provided, however, that no Letter of Credit Default shall occur in any event with respect to a Letter of Credit after the time such Letter of Credit is required to be canceled or returned to the Pledging Party in accordance with the terms of this CSA. Upon the occurrence of a Letter of Credit Default, the Pledging Party agrees to Transfer to the Secured Party either a substitute Letter of Credit or other Eligible Collateral, in each case on or before the second Business Day after the occurrence thereof (or the fifth (5) Business Day after the occurrence thereof if and only if clause (i) under the definition of Letter of Credit Default applies).
- (c) Unless otherwise agreed in writing by the parties, each Letter of Credit shall be provided in accordance with this Paragraph 7 and each Letter of Credit shall be maintained for the benefit of the Secured Party. The Pledging Party shall (i) renew or cause the renewal of each outstanding Letter of Credit on a timely basis as provided in the relevant Letter of Credit, (ii) Transfer either a substitute Letter of Credit or other Eligible Collateral, in each case at least twenty (20) Business Days prior to the expiration of the outstanding Letter of Credit, and (iii) Transfer for the benefit of the Secured Party either a substitute Letter of Credit or other Eligible Collateral, in each case within one (1) Business Day, if the bank issuing a Letter of Credit shall fail to honor the Secured Party's properly documented request to draw on an outstanding Letter of Credit, provided that, as a result of the Pledging Party's failure to perform in accordance with (i), (ii), or (iii) above, the Pledging Party's Collateral Requirement would be greater than zero (0).
- (d) As one method of providing Posted Collateral, the Pledging Party may increase the amount of an outstanding Letter of Credit or establish one or more additional Letters of Credit.
- (e) Upon or at any time after the occurrence of an Event of Default with respect to the Pledging Party and/or the designation of an Early Termination Date by the Secured Party, the Secured Party may draw on the entire undrawn portion of any outstanding Letter(s) of Credit upon submission to the bank issuing such Letter of Credit in accordance with the specific requirements of the Letter of Credit. Cash proceeds received from drawing upon the Letter of Credit shall be deemed Posted Collateral as security for the Pledging Party's obligations to the Secured Party and the Secured Party shall have the rights and remedies set forth in this CSA with respect to such Cash proceeds. Notwithstanding the Secured Party's receipt of Cash under the

Letter of Credit, the Pledging Party shall remain liable (i) for any failure to Transfer sufficient Posted Collateral, and (ii) for any amounts owing to the Secured Party and remaining unpaid after the application of the amounts so drawn by the Secured Party.

- (f) A Pledging Party may substitute a Letter of Credit for one or more other outstanding Letter(s) of Credit issued for the benefit of the Secured Party, provided that the Value of such substitute Letter of Credit shall be at least equal to the Value of the Letter(s) of Credit being replaced, and provided further that no Letter of Credit shall be canceled unless and until the Letter of Credit to be substituted therefor shall have been validly executed, issued and Transferred for the benefit of the Secured Party in accordance with applicable law.
- (g) In all cases, the costs and expenses incurred by the Pledging Party to establish, renew, substitute, cancel, and/or increase the amount of (as the case may be) a Letter of Credit shall be borne by the Pledging Party.
- (h) In any case in which Eligible Collateral or Posted Collateral is in the form of a Letter of Credit (which permits draws based on a facsimile copy), the deadlines set forth in this CSA for providing such collateral to the other party may be met by providing a facsimile copy of the Letter of Credit with an original transmitted by overnight courier for delivery on the next Business Day.

Paragraph 8. Care and Use of Cash.

Eligible Collateral provided in the form of Cash shall be subject to the following provisions.

(a) **Eligibility to Hold Cash.**

(i) If a party is not eligible to hold Cash as set forth in the elections on Page 1 herein, then such Cash shall be held in a Collateral Account in accordance with the provisions of Paragraph 8(e).

(ii) The Secured Party or its Custodian will be entitled to hold Cash provided that the following conditions, as applicable, are satisfied: (1) the Secured Party is not a Defaulting Party, (2) the Secured Party or its Credit Support Provider, if applicable, meets the Eligibility Requirements to Hold Cash requirements set forth in the elections on Page 1 herein, (3) Cash shall be held only in any jurisdiction within the United States, and (4) the Custodian meets the Custodian Requirements set forth in the elections on Page 1 herein. If a party or its Custodian is not eligible, or subsequently becomes ineligible, to hold Posted Collateral pursuant to this Section, then it shall be considered a "Downgraded Party" or a "Downgraded Custodian", as the case may be, and Posted Collateral shall be maintained in accordance with Paragraph 8(e).

(iii) Upon Notice by the Secured Party to the Pledging Party of the appointment of a Custodian, the Pledging Party's obligations to make any Transfer will be discharged by making the Transfer to that Custodian. The holding of Cash by a Custodian will be deemed to be the holding of Cash by the Secured Party for which the Custodian is acting. The Secured Party will be liable for the acts or omissions of its Custodian to the same extent that the Secured Party would be liable hereunder for its own acts or omissions.

- (b) **Use of Cash.** Notwithstanding the provisions of applicable law, if the Secured Party is eligible to hold cash in accordance with Paragraph 8(a), is not a Defaulting Party and no Early Termination Date has occurred or been designated by the Pledging Party as a result of an Event of Default with respect to the Secured Party, then the Secured Party shall have the right to sell, pledge, rehypothecate, assign, invest, use, commingle or otherwise dispose of, or otherwise use in its business any Cash it holds, free from any claim or right of any nature whatsoever of the Pledging Party, including any equity or right of redemption by the Pledging Party.

- (c) **Interest Payments on Cash.** So long as no Event of Default with respect to the Pledging Party has occurred and is continuing, and no Early Termination Date (for which any unsatisfied payment obligations of the Pledging Party exist) has occurred or been designated as the result of an Event of Default with respect to the Pledging Party and to the extent that an obligation to Transfer Posted Collateral would not be created or increased by the Transfer, the Secured Party will upon written request Transfer to the Pledging Party, in lieu of any interest or other amounts paid or deemed to have been paid with respect to the Cash (all of which may be retained by the Secured Party), the Interest Amount on the third Business Day of each calendar month. On or after the occurrence of an Event of Default with respect to the Pledging Party or an Early Termination Date as a result of an Event of Default with respect to the Pledging Party, the Secured Party shall retain any such Interest Amount as additional Eligible Collateral hereunder until the obligations of the Pledging Party under the Base Contract have been satisfied.

- (d) Care of Cash. Without limiting the Secured Party's rights under Paragraph 8(b), the Secured Party will exercise reasonable care to assure the safe custody of all Cash held by it as Posted Collateral to the extent required by applicable law, and in any event the Secured Party will be deemed to have exercised reasonable care if it exercises at least the same degree of care as it would exercise with respect to its own property. Except as specified in the preceding sentence, the Secured Party will have no duty with respect to Cash, including, without limitation, any duty to enforce or preserve any rights pertaining thereto.
- (e) Holding of Cash by a Custodian. The provisions of Paragraph 8(b) will apply to the parties; provided, however, that if a party or its Custodian is not eligible to hold Cash pursuant to Paragraph 8(a) (the event that caused it or its Custodian, if any, to be ineligible to hold Cash shall be a "Credit Rating Event"; if such Credit Rating Event occurs with respect to a party, such party shall be the "Downgraded Party"; and if such Credit Rating Event occurs with respect to a party's Custodian, such Custodian shall be the "Downgraded Custodian"), then: (1) the provisions of Paragraph 8(b) will not apply with respect to the Downgraded Party as the Secured Party for so long as either the Secured Party or its Custodian, if any, remain a Downgraded Party or a Downgraded Custodian, respectively, and (2) the Downgraded Party shall be required to deliver (or cause the Downgraded Custodian to deliver, as the case may be) by the Close of Business on the second (2nd) Business Day following such Credit Rating Event all Cash in its possession or held on its behalf (i) to a Custodian that meets the Custodian Requirements, and (ii) to a segregated, safekeeping or custody account ("Collateral Account") within such Custodian with the title of the Collateral Account indicating that the property contained therein is being held as Posted Collateral for the Downgraded Party; provided, that, if the Credit Rating Event occurs with respect to a party's Custodian that is holding Posted Collateral on behalf of such party, then such Downgraded Custodian may also deliver such Posted Collateral to such party if such party is not a Downgraded Party, and (iii) the parties agree to enter into a control agreement ("Control Agreement") with the Custodian maintaining the Collateral Account. The Control Agreement shall be in such form as shall be reasonably acceptable to each of the parties and shall provide for such items as the timing and release of the funds in the Collateral Account and the investment and reinvestment of Cash held in the Collateral Account. The Control Agreement shall further provide that Custodian shall serve as Custodian with respect to the Posted Collateral in the Collateral Account, and shall hold such Posted Collateral in accordance with the terms of this CSA and for the security interest of the Downgraded Party and, subject to such security interest, for the ownership of the non-Downgraded Party. The parties further agree that notwithstanding the fact that Cash is being held by a Custodian in a Collateral Account pursuant to a Control Agreement, the Downgraded Party shall be required to make interest payments to the non-Downgraded Party in an amount equal to the Interest Amount in accordance with the provisions of Paragraph 8(c).

Paragraph 9. Notices

- (a) "Notice" shall mean a notice or other communication in respect of this CSA. Notice may be given in any manner set forth below to the address or number or in accordance with the electronic messaging system details provided on Page 1 of this CSA and will be deemed effective as indicated:
- (i) if in writing and delivered in person or by courier, on the Business Day it is delivered;
 - (ii) if sent by facsimile transmission, on the date that transmission is received by the recipient in legible form (which may be evidenced by a transmission report generated by the sender's facsimile machine) unless such facsimile transmission is received on a non-Business Day or after the Close of Business then such facsimile shall be deemed to have been received on the next following Business Day.
 - (iii) if sent by certified or registered mail or the equivalent (return receipt requested), on the Business Day that mail is delivered or its delivery is attempted; or
 - (iv) if sent by electronic messaging system, on the date that electronic message is received, unless such electronic message is received on a non-Business Day or after the Close of Business, then such electronic message shall be deemed to have been received on the next following Business Day.
- (b) Any other Notice, including but not limited to, Notice of an Event of Default, must be given pursuant to Section 9 of the Base Contract.

Paragraph 10. Credit Support Default

- (a) A "Credit Support Default" shall exist with respect to a party (the "Defaulting Party") if:

- (i) a party fails (or fails to cause its Custodian, as applicable) to make, when due, any Transfer of Eligible Collateral, Posted Collateral or the Interest Amount, as applicable, required to be made by it, and such failure continues for one (1) Business Day after Notice of that failure is provided to that party; or
 - (ii) a party fails to comply with or perform any material agreement or obligation provided for in this CSA, and such failure continues for one (1) Business Day after Notice of that failure is provided to that party; or
 - (iii) a party or its Custodian fails to comply with any of the obligations under Paragraph 8 herein and the failure continues for one (1) Business Day after notice of the failure is given to that party.
- (b) Credit Support Default shall constitute and have the effect of an Event of Default set forth in Section 10.2 (vi) of the Base Contract.

Paragraph 11. Representations and Warranties.

Each party continuously represents and warrants to the other party that: (a) it has the power and authority under the law of the jurisdiction of its organization or incorporation and under its organizational and constituent documents to grant to the Secured Party a valid, enforceable, first-priority security interest in, and lien on, all Posted Collateral (other than Letters of Credit) that it Transfers as the Pledging Party, and has taken all necessary actions to authorize the granting and perfection of that security interest and lien; (b) as of each date on which it, as the Pledging Party, Transfers Eligible Collateral to the Secured Party or to any agent of the Secured Party for the benefit of the Secured Party (or, in the case of after-acquired Posted Collateral, at the time the Secured Party or its agent acquires rights therein), it has title to, and will be the sole owner of such Eligible Collateral, free and clear of any security interest, lien, pledge, charge, encumbrance, or other interests or restrictions other than the security interest granted to the Secured Party hereby; (c) the Secured Party will have a valid and perfected first-priority security interest in, and lien on, all Posted Collateral (other than Letters of Credit) upon receipt thereof; (d) the performance by it of its obligations under this CSA will not result in the creation of any security interest, lien or other encumbrance on any Posted Collateral other than the security interest and lien granted pursuant to this CSA; and (e) in connection with the delivery, issuance, renewal, substitution, or increase (as the case may be) which constitutes a Transfer of a Letter of Credit, such Letter of Credit is the legal, valid and binding obligation of the Issuer thereof, enforceable in accordance with its terms.

Paragraph 12. Certain Rights and Remedies.

- (a) Secured Party's Rights and Remedies. If at any time (i) an Event of Default with respect to the Pledging Party has occurred and is continuing, or (ii) an Early Termination Date has occurred or been designated as a result of an Event of Default with respect to the Pledging Party, then the Secured Party may do any one or more of the following: (x) exercise any of the rights and remedies of a secured party with respect to the Posted Collateral, including any such rights and remedies under law then in effect; (y) exercise its rights of setoff against any and all property of the Pledging Party in the possession of the Secured Party or its agent; and (z) draw on any outstanding Letter of Credit issued for its benefit under its terms and this CSA. The Secured Party shall either (y) apply the proceeds of the Posted Collateral realized upon the exercise of any such rights or remedies to reduce the Pledging Party's obligations under the Base Contract or this CSA (the Pledging Party remaining liable for any amounts owing to the Secured Party after such application), subject to the Secured Party's obligation to return any surplus proceeds remaining after such obligations are satisfied in full and/or (z) hold such proceeds as collateral security for the Pledging Party's obligations under the Base Contract or this CSA, subject to the Secured Party's obligation to return the proceeds after such obligations are satisfied in full.
- (b) Pledging Party's Rights and Remedies. If at any time an Early Termination Date has occurred or been designated as the result of an Event of Default with respect to the Secured Party, then: (i) the Secured Party will be obligated immediately to Transfer all Posted Collateral and the Interest Amount, if any, to the Pledging Party; and (ii) the Pledging Party may do any one or more of the following: (x) exercise any of the rights and remedies of a pledgor with respect to the Posted Collateral, including any such rights and remedies under law then in effect; (y) to the extent that the Posted Collateral or the Interest Amount is not Transferred to the Pledging Party as required in (i) above, setoff amounts payable by the Pledging Party to the Secured Party against the Posted Collateral held by the Secured Party or to the extent its rights to setoff are not exercised, withhold payment of any remaining amounts payable by the Pledging Party, up to the value of any remaining Posted Collateral held by the Secured Party, until the Posted Collateral is Transferred to the Pledging Party; and/or (z) exercise rights and remedies available to the Pledging Party under the terms of any Letter of Credit.

Paragraph 13. General.

- (a) To secure its obligations under the Base Contract and all outstanding transactions, each party, as the Pledging Party, hereby grants to the other party, as the Secured Party, a present and continuing first-priority security interest in, and lien on (and right of setoff against), all Posted Collateral (other than Letters of Credit) Transferred to the Secured Party hereunder. Each party agrees to take such action as the other party reasonably requires in order to perfect or maintain the other party's first-priority continuing security interest in, and lien on (and right of setoff against), such Posted Collateral.
- (b) Each party will pay its own costs and expenses in connection with performing its obligations under this CSA and neither party will be liable for any costs or expenses incurred by the other party in connection herewith.
- (c) This CSA has been and is made solely for the benefit of the parties and their permitted successors and assigns, and no other entity shall acquire or have any right under or by virtue of this CSA.
- (d) No failure or delay by either party hereto in exercising any right, power, privilege, or remedy hereunder shall operate as a waiver thereof.
- (e) The headings in this CSA are for convenience of reference only, and shall not affect the meaning or construction of any provision thereof.

DISCLAIMER: The purposes of this CSA are to facilitate trade, avoid misunderstandings and make more definite the terms of margining arrangements related to contracts of purchase and sale of natural gas. Further, NAESB does not mandate the use of this CSA by any party. **NAESB DISCLAIMS AND EXCLUDES, AND ANY USER OF THIS CSA ACKNOWLEDGES AND AGREES TO NAESB'S DISCLAIMER OF, ANY AND ALL WARRANTIES, CONDITIONS OR REPRESENTATIONS, EXPRESS OR IMPLIED, ORAL OR WRITTEN, WITH RESPECT TO THIS CSA OR ANY PART THEREOF, INCLUDING ANY AND ALL IMPLIED WARRANTIES OR CONDITIONS OF TITLE, NON-INFRINGEMENT, MERCHANTABILITY, OR FITNESS OR SUITABILITY FOR ANY PARTICULAR PURPOSE (WHETHER OR NOT NAESB KNOWS, HAS REASON TO KNOW, HAS BEEN ADVISED, OR IS OTHERWISE IN FACT AWARE OF ANY SUCH PURPOSE), WHETHER ALLEGED TO ARISE BY LAW, BY REASON OF CUSTOM OR USAGE IN THE TRADE, OR BY COURSE OF DEALING. EACH USER OF THIS CSA ALSO AGREES THAT UNDER NO CIRCUMSTANCES WILL NAESB BE LIABLE FOR ANY DIRECT, SPECIAL, INCIDENTAL, EXEMPLARY, PUNITIVE OR CONSEQUENTIAL DAMAGES ARISING OUT OF ANY USE OF THIS CSA.**

**AMENDMENT TO
MODEL CREDIT SUPPORT ADDENDUM (“CSA”) TO THE BASE CONTRACT FOR SALE AND
PURCHASE OF NATURAL GAS**

**Between Mercuria Energy Gas Trading LLC (“Party A”)
And Northern California Power Agency (“Party B”)**

Dated: December, 2015

The terms and conditions set forth in this Amendment shall supplement and form part of the CSA and shall govern with respect to any conflicting or inconsistent provision in the CSA. Except as amended herein, the CSA shall remain in full force and effect. To facilitate the use of this Amendment with the CSA Section references below correspond to Section references in the CSA.

AMENDMENTS TO THE CSA:

I. Amendments to Paragraph 2. Definitions:

1. The following definitions are hereby added:
 - a. “Moody’s” shall mean Moody’s Investors Service, Inc., or its successor.
 - b. “S&P” shall mean the Standard & Poor’s a division of The McGraw-Hill Companies, Inc. or Standard and Poor’s Ratings Services, a division of The McGraw-Hill Companies, Inc., as applicable, or any successor company thereto.

II. Amendments to Option A, Paragraph 5 - Reduction and Substitution of Posted Collateral:

1. Paragraph 5(b) Option A is amended by replacing “will” in the 15th line with “with”.

III. Amendments to Option A, Paragraph 6 – Disputed Calculations:

1. Paragraph 6(a) Option A is amended by replacing “requirement” in the 20th line with “Requirement”.

IV. Amendments to Option A, Paragraph 7 – Letters of Credit:

1. Section (a) is amended by deleting the word “transferable” in the first line thereof and replacing it with the word “non-transferable”.
2. Section (h) is amended by inserting “from the bank issuing” between the words “facsimile copy” and “Letter of Credit” in the third line thereof.

V. Amendments to Paragraph 9 - Notices:

Insert the phrase “, absent a showing of actual delivery,” after the word “and” in the third line of (a).

VI. Amendment to Paragraph 10. Credit Support Default

1. Section (a)(i) is amended in the third line thereof by deleting “one (1)” and replacing it with “two (2)”.

IN WITNESS WHEREOF, the parties hereto have executed this CSA, including this Amendment in duplicate

Mercuria Energy Gas Trading LLC

Northern California Power Agency

By: _____

By: _____

Name & Title: _____

Name & Title: _____

Base Contract for Sale and Purchase of Natural Gas

This Base Contract is entered into as of the following date: June 23, 2010

The parties to this Base Contract are the following:

PARTY A J.P. Morgan Ventures Energy Corporation	PARTY NAME	PARTY B Northern California Power Agency (NCPA)
245 Park Avenue, 11 th Floor New York, NY 10167 Attn: Energy Legal Department Fax: (646) 534-6393	ADDRESS	651 Commerce Drive Roseville, CA 95678 (916) 781-3636
<u>www.jpmorgan.com</u>	BUSINESS WEBSITE	<u>www.ncpa.com</u>
	CONTRACT NUMBER	
602667201	D-U-N-S® NUMBER	<u>08-290-0564</u>
<input checked="" type="checkbox"/> US FEDERAL: 13-3804817 <input type="checkbox"/> OTHER:	TAX ID NUMBERS	x US FEDERAL: 94-2550072 <input type="checkbox"/> OTHER:
Delaware	JURISDICTION OF ORGANIZATION	
<input checked="" type="checkbox"/> Corporation <input type="checkbox"/> LLC <input type="checkbox"/> Limited Partnership <input type="checkbox"/> Partnership <input type="checkbox"/> LLP <input type="checkbox"/> Other:	COMPANY TYPE	<input type="checkbox"/> Corporation <input type="checkbox"/> LLC <input type="checkbox"/> Limited Partnership <input type="checkbox"/> Partnership <input type="checkbox"/> LLP x Other: <u>Public Agency</u>
JPMorgan Chase & Co.	GUARANTOR (IF APPLICABLE)	Not applicable
CONTACT INFORMATION		
ATTN: <u>Gas Scheduling</u> TEL#: <u>(713) 236-5027</u> FAX#: <u>(713) 236-4100</u> EMAIL: _____	DAY AHEAD SCHEDULING	NCPA Operations and Pre-Scheduling ATTN: _____ TEL#: <u>(916) 786-0123 or 0124</u> FAX#: <u>(916) 781-4239</u> EMAIL: _____
ATTN: _____ TEL#: _____ FAX#: _____ EMAIL: _____	REAL-TIME DISPATCH	NCPA Real-time Dispatch ATTN: _____ TEL#: <u>(916) 786-3518 or 3519</u> FAX#: <u>(916) 781-4226</u> EMAIL: _____
ATTN: <u>Energy Legal Department</u> TEL#: _____ FAX#: <u>(646) 534-6393</u> EMAIL: _____	CONTRACT AND LEGAL NOTICES	NCPA Contracts and Legal ATTN: _____ TEL#: <u>(916) 781-4217 or 3636</u> FAX#: <u>(916) 781-4252</u> EMAIL: _____
ATTN: _____ TEL#: _____ FAX#: _____ EMAIL: _____	CREDIT	ATTN: <u>NCPA Credit</u> TEL#: <u>(916) 781-4271</u> FAX#: _____ EMAIL: _____
ATTN: <u>Commodity Operations</u> TEL#: <u>(212) 623-8225</u> FAX#: <u>(212) 383-6600</u> EMAIL: <u>NA.Energy.Confirmations@jpmorgan.com</u>	TRANSACTION CONFIRMATIONS	NCPA Operations and Pre-Scheduling ATTN: _____ TEL#: <u>(916) 786-0123 or 0124</u> FAX#: <u>(916) 781-4239</u> EMAIL: _____
ACCOUNTING INFORMATION		
ATTN: <u>Physical Settlements</u> TEL#: <u>(713) 236-5200</u> FAX#: <u>(713) 236-3399</u> EMAIL: <u>Na.Energy.Settlements.physical@jpmchase.com</u>	INVOICES PAYMENTS SETTLEMENTS	ATTN: <u>NCPA Settlements</u> TEL#: <u>(916) 781-4224</u> FAX#: _____ EMAIL: _____
BANK: <u>JPMorgan Chase Bank</u> ABA: <u>021 0000 21</u> ACCT: <u>304289361</u> OTHER DETAILS: <u>Please include "North America – Gas Trading" on all payments</u>	WIRE TRANSFER NUMBERS (IF APPLICABLE)	BANK: <u>U.S. Bank</u> ABA: <u>121122676</u> ACCT: <u>1-534-0216-2744</u> OTHER DETAILS: _____
BANK: _____ ABA: _____ ACCT: _____ OTHER DETAILS: _____	ACH NUMBERS (IF APPLICABLE)	BANK: _____ ABA: _____ ACCT: _____ OTHER DETAILS: _____
ATTN: _____ ADDRESS: _____	CHECKS (IF APPLICABLE)	ATTN: _____ ADDRESS: _____

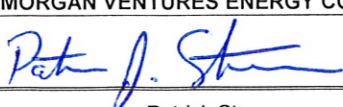
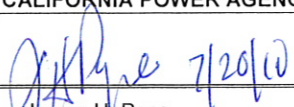
Base Contract for Sale and Purchase of Natural Gas

(Continued)

This Base Contract incorporates by reference for all purposes the General Terms and Conditions for Sale and Purchase of Natural Gas published by the North American Energy Standards Board. The parties hereby agree to the following provisions offered in said General Terms and Conditions. In the event the parties fail to check a box, the specified default provision shall apply. Select the appropriate box(es) from each section:

Section 1.2 Transaction Procedure	<input checked="" type="checkbox"/> Oral (default) <input type="checkbox"/> Written
Section 2.7 Confirm Deadline	<input checked="" type="checkbox"/> 2 Business Days after receipt (default) <input type="checkbox"/> _____ Business Days after receipt
Section 2.8 Confirming Party	<input checked="" type="checkbox"/> Seller (default) <input type="checkbox"/> Buyer <input type="checkbox"/> _____
Section 3.2 Performance Obligation	<input checked="" type="checkbox"/> Cover Standard (default) <input type="checkbox"/> Spot Price Standard
Note: The following Spot Price Publication applies to both of the immediately preceding.	
Section 2.31 Spot Price Publication	<input checked="" type="checkbox"/> Gas Daily Midpoint (default) <input type="checkbox"/> _____
Section 6 Taxes	<input checked="" type="checkbox"/> Buyer Pays At and After Delivery Point (default) <input type="checkbox"/> Seller Pays Before and At Delivery Point
Section 7.2 Payment Date	<input checked="" type="checkbox"/> 25 th Day of Month following Month of delivery (default) <input type="checkbox"/> Day of Month following Month of delivery
Section 7.2 Method of Payment	<input checked="" type="checkbox"/> Wire transfer (default) <input type="checkbox"/> Automated Clearinghouse Credit (ACH) <input type="checkbox"/> Check
Section 7.7 Netting	<input checked="" type="checkbox"/> Netting applies (default) <input type="checkbox"/> Netting does not apply
Section 10.2 Additional Events of Default	
<input type="checkbox"/> No Additional Events of Default (default) <input checked="" type="checkbox"/> Indebtedness Cross Default <input checked="" type="checkbox"/> Party A: 1% of the shareholders equity of JPMorgan Chase & Co. For purposes of the above, shareholders' equity shall be determined by reference to the audited consolidated balance sheet for JPMorgan Chase & Co.'s most recently completed fiscal year. Such balance sheet shall be prepared in accordance with relevant generally accepted accounting principles <input checked="" type="checkbox"/> Party B: \$35,000,000 <input type="checkbox"/> Transactional Cross Default <u>Specified Transactions:</u> _____ _____	
Section 10.3.1 Early Termination Damages	
<input checked="" type="checkbox"/> Early Termination Damages Apply (default) <input type="checkbox"/> Early Termination Damages Do Not Apply	
Section 10.3.2 Other Agreement Setoffs	
<input checked="" type="checkbox"/> Other Agreement Setoffs Apply (default) <input type="checkbox"/> Bilateral (default) <input checked="" type="checkbox"/> Triangular <input type="checkbox"/> Other Agreement Setoffs Do Not Apply	
Section 15.5 Choice Of Law	
<u>California</u>	
Section 15.10 Confidentiality	
<input checked="" type="checkbox"/> Confidentiality applies (default) <input type="checkbox"/> Confidentiality does not apply	
x Special Provisions Number of sheets attached: <u>10</u> <input type="checkbox"/> Addendum(s): _____	

IN WITNESS WHEREOF, the parties hereto have executed this Base Contract in duplicate.

J.P. MORGAN VENTURES ENERGY CORPORATION	PARTY NAME	NORTHERN CALIFORNIA POWER AGENCY
By: 	SIGNATURE	By: 
Patrick Strange	PRINTED NAME	James H. Pope
Managing Director	TITLE	General Manager

General Terms and Conditions

Base Contract for Sale and Purchase of Natural Gas

SECTION 1. PURPOSE AND PROCEDURES

1.1. These General Terms and Conditions are intended to facilitate purchase and sale transactions of Gas on a Firm or Interruptible basis. "Buyer" refers to the party receiving Gas and "Seller" refers to the party delivering Gas. The entire agreement between the parties shall be the Contract as defined in Section 2.9.

The parties have selected either the "Oral Transaction Procedure" or the "Written Transaction Procedure" as indicated on the Base Contract.

Oral Transaction Procedure:

1.2. The parties will use the following Transaction Confirmation procedure. Any Gas purchase and sale transaction may be effectuated in an EDI transmission or telephone conversation with the offer and acceptance constituting the agreement of the parties. The parties shall be legally bound from the time they so agree to transaction terms and may each rely thereon. Any such transaction shall be considered a "writing" and to have been "signed". Notwithstanding the foregoing sentence, the parties agree that Confirming Party shall, and the other party may, confirm a telephonic transaction by sending the other party a Transaction Confirmation by facsimile, EDI or mutually agreeable electronic means within three Business Days of a transaction covered by this Section 1.2 (Oral Transaction Procedure) provided that the failure to send a Transaction Confirmation shall not invalidate the oral agreement of the parties. Confirming Party adopts its confirming letterhead, or the like, as its signature on any Transaction Confirmation as the identification and authentication of Confirming Party. If the Transaction Confirmation contains any provisions other than those relating to the commercial terms of the transaction (i.e., price, quantity, performance obligation, delivery point, period of delivery and/or transportation conditions), which modify or supplement the Base Contract or General Terms and Conditions of this Contract (e.g., arbitration or additional representations and warranties), such provisions shall not be deemed to be accepted pursuant to Section 1.3 but must be expressly agreed to by both parties; provided that the foregoing shall not invalidate any transaction agreed to by the parties.

Written Transaction Procedure:

1.2. The parties will use the following Transaction Confirmation procedure. Should the parties come to an agreement regarding a Gas purchase and sale transaction for a particular Delivery Period, the Confirming Party shall, and the other party may, record that agreement on a Transaction Confirmation and communicate such Transaction Confirmation by facsimile, EDI or mutually agreeable electronic means, to the other party by the close of the Business Day following the date of agreement. The parties acknowledge that their agreement will not be binding until the exchange of nonconflicting Transaction Confirmations or the passage of the Confirm Deadline without objection from the receiving party, as provided in Section 1.3.

1.3. If a sending party's Transaction Confirmation is materially different from the receiving party's understanding of the agreement referred to in Section 1.2, such receiving party shall notify the sending party via facsimile, EDI or mutually agreeable electronic means by the Confirm Deadline, unless such receiving party has previously sent a Transaction Confirmation to the sending party. The failure of the receiving party to so notify the sending party in writing by the Confirm Deadline constitutes the receiving party's agreement to the terms of the transaction described in the sending party's Transaction Confirmation. If there are any material differences between timely sent Transaction Confirmations governing the same transaction, then neither Transaction Confirmation shall be binding until or unless such differences are resolved including the use of any evidence that clearly resolves the differences in the Transaction Confirmations. In the event of a conflict among the terms of (i) a binding Transaction Confirmation pursuant to Section 1.2, (ii) the oral agreement of the parties which may be evidenced by a recorded conversation, where the parties have selected the Oral Transaction Procedure of the Base Contract, (iii) the Base Contract, and (iv) these General Terms and Conditions, the terms of the documents shall govern in the priority listed in this sentence.

1.4. The parties agree that each party may electronically record all telephone conversations with respect to this Contract between their respective employees, without any special or further notice to the other party. Each party shall obtain any necessary consent of its agents and employees to such recording. Where the parties have selected the Oral Transaction Procedure in Section 1.2 of the Base Contract, the parties agree not to contest the validity or enforceability of telephonic recordings entered into in accordance with the requirements of this Base Contract.

SECTION 2. DEFINITIONS

The terms set forth below shall have the meaning ascribed to them below. Other terms are also defined elsewhere in the Contract and shall have the meanings ascribed to them herein.

2.1. "Additional Event of Default" shall mean Transactional Cross Default or Indebtedness Cross Default, each as and if selected by the parties pursuant to the Base Contract.

2.2. "Affiliate" shall mean, in relation to any person, any entity controlled, directly or indirectly, by the person, any entity that controls, directly or indirectly, the person or any entity directly or indirectly under common control with the person. For this purpose, "control" of any entity or person means ownership of at least 50 percent of the voting power of the entity or person.

2.3. "Alternative Damages" shall mean such damages, expressed in dollars or dollars per MMBtu, as the parties shall agree upon in the Transaction Confirmation, in the event either Seller or Buyer fails to perform a Firm obligation to deliver Gas in the case of Seller or to receive Gas in the case of Buyer.

- 2.4. "Base Contract" shall mean a contract executed by the parties that incorporates these General Terms and Conditions by reference; that specifies the agreed selections of provisions contained herein; and that sets forth other information required herein and any Special Provisions and addendum(s) as identified on page one.
- 2.5. "British thermal unit" or "Btu" shall mean the International BTU, which is also called the Btu (IT).
- 2.6. "Business Day(s)" shall mean Monday through Friday, excluding Federal Banking Holidays for transactions in the U.S.
- 2.7. "Confirm Deadline" shall mean 5:00 p.m. in the receiving party's time zone on the second Business Day following the Day a Transaction Confirmation is received or, if applicable, on the Business Day agreed to by the parties in the Base Contract; provided, if the Transaction Confirmation is time stamped after 5:00 p.m. in the receiving party's time zone, it shall be deemed received at the opening of the next Business Day.
- 2.8. "Confirming Party" shall mean the party designated in the Base Contract to prepare and forward Transaction Confirmations to the other party.
- 2.9. "Contract" shall mean the legally-binding relationship established by (i) the Base Contract, (ii) any and all binding Transaction Confirmations and (iii) where the parties have selected the Oral Transaction Procedure in Section 1.2 of the Base Contract, any and all transactions that the parties have entered into through an EDI transmission or by telephone, but that have not been confirmed in a binding Transaction Confirmation, all of which shall form a single integrated agreement between the parties.
- 2.10. "Contract Price" shall mean the amount expressed in U.S. Dollars per MMBtu to be paid by Buyer to Seller for the purchase of Gas as agreed to by the parties in a transaction.
- 2.11. "Contract Quantity" shall mean the quantity of Gas to be delivered and taken as agreed to by the parties in a transaction.
- 2.12. "Cover Standard", as referred to in Section 3.2, shall mean that if there is an unexcused failure to take or deliver any quantity of Gas pursuant to this Contract, then the performing party shall use commercially reasonable efforts to (i) if Buyer is the performing party, obtain Gas, (or an alternate fuel if elected by Buyer and replacement Gas is not available), or (ii) if Seller is the performing party, sell Gas, in either case, at a price reasonable for the delivery or production area, as applicable, consistent with: the amount of notice provided by the nonperforming party; the immediacy of the Buyer's Gas consumption needs or Seller's Gas sales requirements, as applicable; the quantities involved; and the anticipated length of failure by the nonperforming party.
- 2.13. "Credit Support Obligation(s)" shall mean any obligation(s) to provide or establish credit support for, or on behalf of, a party to this Contract such as cash, an irrevocable standby letter of credit, a margin agreement, a prepayment, a security interest in an asset, guaranty, or other good and sufficient security of a continuing nature.
- 2.14. "Day" shall mean a period of 24 consecutive hours, coextensive with a "day" as defined by the Receiving Transporter in a particular transaction.
- 2.15. "Delivery Period" shall be the period during which deliveries are to be made as agreed to by the parties in a transaction.
- 2.16. "Delivery Point(s)" shall mean such point(s) as are agreed to by the parties in a transaction.
- 2.17. "EDI" shall mean an electronic data interchange pursuant to an agreement entered into by the parties, specifically relating to the communication of Transaction Confirmations under this Contract.
- 2.18. "EFP" shall mean the purchase, sale or exchange of natural Gas as the "physical" side of an exchange for physical transaction involving gas futures contracts. EFP shall incorporate the meaning and remedies of "Firm", provided that a party's excuse for nonperformance of its obligations to deliver or receive Gas will be governed by the rules of the relevant futures exchange regulated under the Commodity Exchange Act.
- 2.19. "Firm" shall mean that either party may interrupt its performance without liability only to the extent that such performance is prevented for reasons of Force Majeure; provided, however, that during Force Majeure interruptions, the party invoking Force Majeure may be responsible for any Imbalance Charges as set forth in Section 4.3 related to its interruption after the nomination is made to the Transporter and until the change in deliveries and/or receipts is confirmed by the Transporter.
- 2.20. "Gas" shall mean any mixture of hydrocarbons and noncombustible gases in a gaseous state consisting primarily of methane.
- 2.21. "Guarantor" shall mean any entity that has provided a guaranty of the obligations of a party hereunder.
- 2.22. "Imbalance Charges" shall mean any fees, penalties, costs or charges (in cash or in kind) assessed by a Transporter for failure to satisfy the Transporter's balance and/or nomination requirements.
- 2.23. "Indebtedness Cross Default" shall mean if selected on the Base Contract by the parties with respect to a party, that it or its Guarantor, if any, experiences a default, or similar condition or event however therein defined, under one or more agreements or instruments, individually or collectively, relating to indebtedness (such indebtedness to include any obligation whether present or future, contingent or otherwise, as principal or surety or otherwise) for the payment or repayment of borrowed money in an aggregate amount greater than the threshold specified in the Base Contract with respect to such party or its Guarantor, if any, which results in such indebtedness becoming immediately due and payable.
- 2.24. "Interruptible" shall mean that either party may interrupt its performance at any time for any reason, whether or not caused by an event of Force Majeure, with no liability, except such interrupting party may be responsible for any Imbalance

Charges as set forth in Section 4.3 related to its interruption after the nomination is made to the Transporter and until the change in deliveries and/or receipts is confirmed by Transporter.

2.25. "MMBtu" shall mean one million British thermal units, which is equivalent to one dekatherm.

2.26. "Month" shall mean the period beginning on the first Day of the calendar month and ending immediately prior to the commencement of the first Day of the next calendar month.

2.27. "Payment Date" shall mean a date, as indicated on the Base Contract, on or before which payment is due Seller for Gas received by Buyer in the previous Month.

2.28. "Receiving Transporter" shall mean the Transporter receiving Gas at a Delivery Point, or absent such receiving Transporter, the Transporter delivering Gas at a Delivery Point.

2.29. "Scheduled Gas" shall mean the quantity of Gas confirmed by Transporter(s) for movement, transportation or management.

2.30. "Specified Transaction(s)" shall mean any other transaction or agreement between the parties for the purchase, sale or exchange of physical Gas, and any other transaction or agreement identified as a Specified Transaction under the Base Contract.

2.31. "Spot Price" as referred to in Section 3.2 shall mean the price listed in the publication indicated on the Base Contract, under the listing applicable to the geographic location closest in proximity to the Delivery Point(s) for the relevant Day; provided, if there is no single price published for such location for such Day, but there is published a range of prices, then the Spot Price shall be the average of such high and low prices. If no price or range of prices is published for such Day, then the Spot Price shall be the average of the following: (i) the price (determined as stated above) for the first Day for which a price or range of prices is published that next precedes the relevant Day; and (ii) the price (determined as stated above) for the first Day for which a price or range of prices is published that next follows the relevant Day.

2.32. "Transaction Confirmation" shall mean a document, similar to the form of Exhibit A, setting forth the terms of a transaction formed pursuant to Section 1 for a particular Delivery Period.

2.33. "Transactional Cross Default" shall mean if selected on the Base Contract by the parties with respect to a party, that it shall be in default, however therein defined, under any Specified Transaction.

2.34. "Termination Option" shall mean the option of either party to terminate a transaction in the event that the other party fails to perform a Firm obligation to deliver Gas in the case of Seller or to receive Gas in the case of Buyer for a designated number of days during a period as specified on the applicable Transaction Confirmation.

2.35. "Transporter(s)" shall mean all Gas gathering or pipeline companies, or local distribution companies, acting in the capacity of a transporter, transporting Gas for Seller or Buyer upstream or downstream, respectively, of the Delivery Point pursuant to a particular transaction.

SECTION 3. PERFORMANCE OBLIGATION

3.1. Seller agrees to sell and deliver, and Buyer agrees to receive and purchase, the Contract Quantity for a particular transaction in accordance with the terms of the Contract. Sales and purchases will be on a Firm or Interruptible basis, as agreed to by the parties in a transaction.

The parties have selected either the "Cover Standard" or the "Spot Price Standard" as indicated on the Base Contract.

Cover Standard:

3.2. The sole and exclusive remedy of the parties in the event of a breach of a Firm obligation to deliver or receive Gas shall be recovery of the following: (i) in the event of a breach by Seller on any Day(s), payment by Seller to Buyer in an amount equal to the positive difference, if any, between the purchase price paid by Buyer utilizing the Cover Standard and the Contract Price, adjusted for commercially reasonable differences in transportation costs to or from the Delivery Point(s), multiplied by the difference between the Contract Quantity and the quantity actually delivered by Seller for such Day(s) excluding any quantity for which no replacement is available; or (ii) in the event of a breach by Buyer on any Day(s), payment by Buyer to Seller in the amount equal to the positive difference, if any, between the Contract Price and the price received by Seller utilizing the Cover Standard for the resale of such Gas, adjusted for commercially reasonable differences in transportation costs to or from the Delivery Point(s), multiplied by the difference between the Contract Quantity and the quantity actually taken by Buyer for such Day(s) excluding any quantity for which no sale is available; and (iii) in the event that Buyer has used commercially reasonable efforts to replace the Gas or Seller has used commercially reasonable efforts to sell the Gas to a third party, and no such replacement or sale is available for all or any portion of the Contract Quantity of Gas, then in addition to (i) or (ii) above, as applicable, the sole and exclusive remedy of the performing party with respect to the Gas not replaced or sold shall be an amount equal to any unfavorable difference between the Contract Price and the Spot Price, adjusted for such transportation to the applicable Delivery Point, multiplied by the quantity of such Gas not replaced or sold. Imbalance Charges shall not be recovered under this Section 3.2, but Seller and/or Buyer shall be responsible for Imbalance Charges, if any, as provided in Section 4.3. The amount of such unfavorable difference shall be payable five Business Days after presentation of the performing party's invoice, which shall set forth the basis upon which such amount was calculated.

Spot Price Standard:

3.2. The sole and exclusive remedy of the parties in the event of a breach of a Firm obligation to deliver or receive Gas shall be recovery of the following: (i) in the event of a breach by Seller on any Day(s), payment by Seller to Buyer in an amount equal to the

difference between the Contract Quantity and the actual quantity delivered by Seller and received by Buyer for such Day(s), multiplied by the positive difference, if any, obtained by subtracting the Contract Price from the Spot Price; or (ii) in the event of a breach by Buyer on any Day(s), payment by Buyer to Seller in an amount equal to the difference between the Contract Quantity and the actual quantity delivered by Seller and received by Buyer for such Day(s), multiplied by the positive difference, if any, obtained by subtracting the applicable Spot Price from the Contract Price. Imbalance Charges shall not be recovered under this Section 3.2, but Seller and/or Buyer shall be responsible for Imbalance Charges, if any, as provided in Section 4.3. The amount of such unfavorable difference shall be payable five Business Days after presentation of the performing party's invoice, which shall set forth the basis upon which such amount was calculated.

3.3. Notwithstanding Section 3.2, the parties may agree to Alternative Damages in a Transaction Confirmation executed in writing by both parties.

3.4. In addition to Sections 3.2 and 3.3, the parties may provide for a Termination Option in a Transaction Confirmation executed in writing by both parties. The Transaction Confirmation containing the Termination Option will designate the length of nonperformance triggering the Termination Option and the procedures for exercise thereof, how damages for nonperformance will be compensated, and how liquidation costs will be calculated.

SECTION 4. TRANSPORTATION, NOMINATIONS, AND IMBALANCES

4.1. Seller shall have the sole responsibility for transporting the Gas to the Delivery Point(s). Buyer shall have the sole responsibility for transporting the Gas from the Delivery Point(s).

4.2. The parties shall coordinate their nomination activities, giving sufficient time to meet the deadlines of the affected Transporter(s). Each party shall give the other party timely prior Notice, sufficient to meet the requirements of all Transporter(s) involved in the transaction, of the quantities of Gas to be delivered and purchased each Day. Should either party become aware that actual deliveries at the Delivery Point(s) are greater or lesser than the Scheduled Gas, such party shall promptly notify the other party.

4.3. The parties shall use commercially reasonable efforts to avoid imposition of any Imbalance Charges. If Buyer or Seller receives an invoice from a Transporter that includes Imbalance Charges, the parties shall determine the validity as well as the cause of such Imbalance Charges. If the Imbalance Charges were incurred as a result of Buyer's receipt of quantities of Gas greater than or less than the Scheduled Gas, then Buyer shall pay for such Imbalance Charges or reimburse Seller for such Imbalance Charges paid by Seller. If the Imbalance Charges were incurred as a result of Seller's delivery of quantities of Gas greater than or less than the Scheduled Gas, then Seller shall pay for such Imbalance Charges or reimburse Buyer for such Imbalance Charges paid by Buyer.

SECTION 5. QUALITY AND MEASUREMENT

All Gas delivered by Seller shall meet the pressure, quality and heat content requirements of the Receiving Transporter. The unit of quantity measurement for purposes of this Contract shall be one MMBtu dry. Measurement of Gas quantities hereunder shall be in accordance with the established procedures of the Receiving Transporter.

SECTION 6. TAXES

The parties have selected either "Buyer Pays At and After Delivery Point" or "Seller Pays Before and At Delivery Point" as indicated on the Base Contract.

Buyer Pays At and After Delivery Point:

Seller shall pay or cause to be paid all taxes, fees, levies, penalties, licenses or charges imposed by any government authority ("Taxes") on or with respect to the Gas prior to the Delivery Point(s). Buyer shall pay or cause to be paid all Taxes on or with respect to the Gas at the Delivery Point(s) and all Taxes after the Delivery Point(s). If a party is required to remit or pay Taxes that are the other party's responsibility hereunder, the party responsible for such Taxes shall promptly reimburse the other party for such Taxes. Any party entitled to an exemption from any such Taxes or charges shall furnish the other party any necessary documentation thereof.

Seller Pays Before and At Delivery Point:

Seller shall pay or cause to be paid all taxes, fees, levies, penalties, licenses or charges imposed by any government authority ("Taxes") on or with respect to the Gas prior to the Delivery Point(s) and all Taxes at the Delivery Point(s). Buyer shall pay or cause to be paid all Taxes on or with respect to the Gas after the Delivery Point(s). If a party is required to remit or pay Taxes that are the other party's responsibility hereunder, the party responsible for such Taxes shall promptly reimburse the other party for such Taxes. Any party entitled to an exemption from any such Taxes or charges shall furnish the other party any necessary documentation thereof.

SECTION 7. BILLING, PAYMENT, AND AUDIT

7.1. Seller shall invoice Buyer for Gas delivered and received in the preceding Month and for any other applicable charges, providing supporting documentation acceptable in industry practice to support the amount charged. If the actual quantity delivered is not known by the billing date, billing will be prepared based on the quantity of Scheduled Gas. The invoiced quantity will then be adjusted to the actual quantity on the following Month's billing or as soon thereafter as actual delivery information is available.

7.2. Buyer shall remit the amount due under Section 7.1 in the manner specified in the Base Contract, in immediately available funds, on or before the later of the Payment Date or 10 Days after receipt of the invoice by Buyer; provided that if the Payment Date is not a Business Day, payment is due on the next Business Day following that date. In the event any payments are due Buyer hereunder, payment to Buyer shall be made in accordance with this Section 7.2.

7.3. In the event payments become due pursuant to Sections 3.2 or 3.3, the performing party may submit an invoice to the nonperforming party for an accelerated payment setting forth the basis upon which the invoiced amount was calculated. Payment from the nonperforming party will be due five Business Days after receipt of invoice.

7.4. If the invoiced party, in good faith, disputes the amount of any such invoice or any part thereof, such invoiced party will pay such amount as it concedes to be correct; provided, however, if the invoiced party disputes the amount due, it must provide supporting documentation acceptable in industry practice to support the amount paid or disputed without undue delay. In the event the parties are unable to resolve such dispute, either party may pursue any remedy available at law or in equity to enforce its rights pursuant to this Section.

7.5. If the invoiced party fails to remit the full amount payable when due, interest on the unpaid portion shall accrue from the date due until the date of payment at a rate equal to the lower of (i) the then-effective prime rate of interest published under "Money Rates" by The Wall Street Journal, plus two percent per annum; or (ii) the maximum applicable lawful interest rate.

7.6. A party shall have the right, at its own expense, upon reasonable Notice and at reasonable times, to examine and audit and to obtain copies of the relevant portion of the books, records, and telephone recordings of the other party only to the extent reasonably necessary to verify the accuracy of any statement, charge, payment, or computation made under the Contract. This right to examine, audit, and to obtain copies shall not be available with respect to proprietary information not directly relevant to transactions under this Contract. All invoices and billings shall be conclusively presumed final and accurate and all associated claims for under- or overpayments shall be deemed waived unless such invoices or billings are objected to in writing, with adequate explanation and/or documentation, within two years after the Month of Gas delivery. All retroactive adjustments under Section 7 shall be paid in full by the party owing payment within 30 Days of Notice and substantiation of such inaccuracy.

7.7. Unless the parties have elected on the Base Contract not to make this Section 7.7 applicable to this Contract, the parties shall net all undisputed amounts due and owing, and/or past due, arising under the Contract such that the party owing the greater amount shall make a single payment of the net amount to the other party in accordance with Section 7; provided that no payment required to be made pursuant to the terms of any Credit Support Obligation or pursuant to Section 7.3 shall be subject to netting under this Section. If the parties have executed a separate netting agreement, the terms and conditions therein shall prevail to the extent inconsistent herewith.

SECTION 8. TITLE, WARRANTY, AND INDEMNITY

8.1. Unless otherwise specifically agreed, title to the Gas shall pass from Seller to Buyer at the Delivery Point(s). Seller shall have responsibility for and assume any liability with respect to the Gas prior to its delivery to Buyer at the specified Delivery Point(s). Buyer shall have responsibility for and assume any liability with respect to said Gas after its delivery to Buyer at the Delivery Point(s).

8.2. Seller warrants that it will have the right to convey and will transfer good and merchantable title to all Gas sold hereunder and delivered by it to Buyer, free and clear of all liens, encumbrances, and claims. EXCEPT AS PROVIDED IN THIS SECTION 8.2 AND IN SECTION 15.8, ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR ANY PARTICULAR PURPOSE, ARE DISCLAIMED.

8.3. Seller agrees to indemnify Buyer and save it harmless from all losses, liabilities or claims including reasonable attorneys' fees and costs of court ("Claims"), from any and all persons, arising from or out of claims of title, personal injury (including death) or property damage from said Gas or other charges thereon which attach before title passes to Buyer. Buyer agrees to indemnify Seller and save it harmless from all Claims, from any and all persons, arising from or out of claims regarding payment, personal injury (including death) or property damage from said Gas or other charges thereon which attach after title passes to Buyer.

8.4. The parties agree that the delivery of and the transfer of title to all Gas under this Contract shall take place within the Customs Territory of the United States (as defined in general note 2 of the Harmonized Tariff Schedule of the United States 19 U.S.C. §1202, General Notes, page 3); provided, however, that in the event Seller took title to the Gas outside the Customs Territory of the United States, Seller represents and warrants that it is the importer of record for all Gas entered and delivered into the United States, and shall be responsible for entry and entry summary filings as well as the payment of duties, taxes and fees, if any, and all applicable record keeping requirements.

8.5. Notwithstanding the other provisions of this Section 8, as between Seller and Buyer, Seller will be liable for all Claims to the extent that such arise from the failure of Gas delivered by Seller to meet the quality requirements of Section 5.

SECTION 9. NOTICES

9.1. All Transaction Confirmations, invoices, payment instructions, and other communications made pursuant to the Base Contract ("Notices") shall be made to the addresses specified in writing by the respective parties from time to time.

9.2. All Notices required hereunder shall be in writing and may be sent by facsimile or mutually acceptable electronic means, a nationally recognized overnight courier service, first class mail or hand delivered.

9.3. Notice shall be given when received on a Business Day by the addressee. In the absence of proof of the actual receipt date, the following presumptions will apply. Notices sent by facsimile shall be deemed to have been received upon the sending party's receipt of its facsimile machine's confirmation of successful transmission. If the day on which such facsimile is received is not a Business Day or is after five p.m. on a Business Day, then such facsimile shall be deemed to have been received on the next following Business Day. Notice by overnight mail or courier shall be deemed to have been received on the next Business Day after it was sent or such earlier time as is confirmed by the receiving party. Notice via first class mail shall be considered delivered five Business Days after mailing.

9.4. The party receiving a commercially acceptable Notice of change in payment instructions or other payment information shall not be obligated to implement such change until ten Business Days after receipt of such Notice.

SECTION 10. FINANCIAL RESPONSIBILITY

10.1. If either party ("X") has reasonable grounds for insecurity regarding the performance of any obligation under this Contract (whether or not then due) by the other party ("Y") (including, without limitation, the occurrence of a material change in the creditworthiness of Y or its Guarantor, if applicable), X may demand Adequate Assurance of Performance. "Adequate Assurance of Performance" shall mean sufficient security in the form, amount, for a term, and from an issuer, all as reasonably acceptable to X, including, but not limited to cash, a standby irrevocable letter of credit, a prepayment, a security interest in an asset or guaranty. Y hereby grants to X a continuing first priority security interest in, lien on, and right of setoff against all Adequate Assurance of Performance in the form of cash transferred by Y to X pursuant to this Section 10.1. Upon the return by X to Y of such Adequate Assurance of Performance, the security interest and lien granted hereunder on that Adequate Assurance of Performance shall be released automatically and, to the extent possible, without any further action by either party.

10.2. In the event (each an "Event of Default") either party (the "Defaulting Party") or its Guarantor shall: (i) make an assignment or any general arrangement for the benefit of creditors; (ii) file a petition or otherwise commence, authorize, or acquiesce in the commencement of a proceeding or case under any bankruptcy or similar law for the protection of creditors or have such petition filed or proceeding commenced against it; (iii) otherwise become bankrupt or insolvent (however evidenced); (iv) be unable to pay its debts as they fall due; (v) have a receiver, provisional liquidator, conservator, custodian, trustee or other similar official appointed with respect to it or substantially all of its assets; (vi) fail to perform any obligation to the other party with respect to any Credit Support Obligations relating to the Contract; (vii) fail to give Adequate Assurance of Performance under Section 10.1 within 48 hours but at least one Business Day of a written request by the other party; (viii) not have paid any amount due the other party hereunder on or before the second Business Day following written Notice that such payment is due; or ix) be the affected party with respect to any Additional Event of Default; then the other party (the "Non-Defaulting Party") shall have the right, at its sole election, to immediately withhold and/or suspend deliveries or payments upon Notice and/or to terminate and liquidate the transactions under the Contract, in the manner provided in Section 10.3, in addition to any and all other remedies available hereunder.

10.3. If an Event of Default has occurred and is continuing, the Non-Defaulting Party shall have the right, by Notice to the Defaulting Party, to designate a Day, no earlier than the Day such Notice is given and no later than 20 Days after such Notice is given, as an early termination date (the "Early Termination Date") for the liquidation and termination pursuant to Section 10.3.1 of all transactions under the Contract, each a "Terminated Transaction". On the Early Termination Date, all transactions will terminate, other than those transactions, if any, that may not be liquidated and terminated under applicable law ("Excluded Transactions"), which Excluded Transactions must be liquidated and terminated as soon thereafter as is legally permissible, and upon termination shall be a Terminated Transaction and be valued consistent with Section 10.3.1 below. With respect to each Excluded Transaction, its actual termination date shall be the Early Termination Date for purposes of Section 10.3.1.

The parties have selected either "Early Termination Damages Apply" or "Early Termination Damages Do Not Apply" as indicated on the Base Contract.

Early Termination Damages Apply:

10.3.1. As of the Early Termination Date, the Non-Defaulting Party shall determine, in good faith and in a commercially reasonable manner, (i) the amount owed (whether or not then due) by each party with respect to all Gas delivered and received between the parties under Terminated Transactions and Excluded Transactions on and before the Early Termination Date and all other applicable charges relating to such deliveries and receipts (including without limitation any amounts owed under Section 3.2), for which payment has not yet been made by the party that owes such payment under this Contract and (ii) the Market Value, as defined below, of each Terminated Transaction. The Non-Defaulting Party shall (x) liquidate and accelerate each Terminated Transaction at its Market Value, so that each amount equal to the difference between such Market Value and the Contract Value, as defined below, of such Terminated Transaction(s) shall be due to the Buyer under the Terminated Transaction(s) if such Market Value exceeds the Contract Value and to the Seller if the opposite is the case; and (y) where appropriate, discount each amount then due under clause (x) above to present value in a commercially reasonable manner as of the Early Termination Date (to take account of the period between the date of liquidation and the date on which such amount would have otherwise been due pursuant to the relevant Terminated Transactions).

For purposes of this Section 10.3.1, "Contract Value" means the amount of Gas remaining to be delivered or purchased under a transaction multiplied by the Contract Price, and "Market Value" means the amount of Gas remaining to be delivered or purchased under a transaction multiplied by the market price for a similar transaction at the Delivery Point determined by the Non-Defaulting Party in a commercially reasonable manner. To ascertain the Market Value, the Non-Defaulting Party may consider, among other valuations, any or all of the settlement prices of NYMEX Gas futures contracts, quotations from leading dealers in energy swap contracts or physical gas trading markets, similar sales or purchases and any other bona fide third-party offers, all adjusted for the length of the term and differences in transportation costs. A party shall not be required to enter into a replacement transaction(s) in order to determine the Market Value. Any extension(s) of the term of a transaction to which parties are not bound as of the Early Termination Date (including but not limited to "evergreen provisions") shall not be considered in determining Contract Values and Market Values. For the avoidance of doubt, any option pursuant to which one party has the right to extend the term of a transaction shall be considered in determining Contract Values and Market Values. The rate of interest used in calculating net present value shall be determined by the Non-Defaulting Party in a commercially reasonable manner.

Early Termination Damages Do Not Apply:

10.3.1. As of the Early Termination Date, the Non-Defaulting Party shall determine, in good faith and in a commercially reasonable manner, the amount owed (whether or not then due) by each party with respect to all Gas delivered and received between the parties under Terminated Transactions and Excluded Transactions on and before the Early Termination Date and all other applicable charges relating to such deliveries and receipts (including without limitation any amounts owed under Section 3.2), for which payment has not yet been made by the party that owes such payment under this Contract.

The parties have selected either "Other Agreement Setoffs Apply" or "Other Agreement Setoffs Do Not Apply" as indicated on the Base Contract.

Other Agreement Setoffs Apply:

Bilateral Setoff Option:

10.3.2. The Non-Defaulting Party shall net or aggregate, as appropriate, any and all amounts owing between the parties under Section 10.3.1, so that all such amounts are netted or aggregated to a single liquidated amount payable by one party to the other (the "Net Settlement Amount"). At its sole option and without prior Notice to the Defaulting Party, the Non-Defaulting Party is hereby authorized to setoff any Net Settlement Amount against (i) any margin or other collateral held by a party in connection with any Credit Support Obligation relating to the Contract; and (ii) any amount(s) (including any excess cash margin or excess cash collateral) owed or held by the party that is entitled to the Net Settlement Amount under any other agreement or arrangement between the parties.

Triangular Setoff Option:

10.3.2. The Non-Defaulting Party shall net or aggregate, as appropriate, any and all amounts owing between the parties under Section 10.3.1, so that all such amounts are netted or aggregated to a single liquidated amount payable by one party to the other (the "Net Settlement Amount"). At its sole option, and without prior Notice to the Defaulting Party, the Non-Defaulting Party is hereby authorized to setoff (i) any Net Settlement Amount against any margin or other collateral held by a party in connection with any Credit Support Obligation relating to the Contract; (ii) any Net Settlement Amount against any amount(s) (including any excess cash margin or excess cash collateral) owed by or to a party under any other agreement or arrangement between the parties; (iii) any Net Settlement Amount owed to the Non-Defaulting Party against any amount(s) (including any excess cash margin or excess cash collateral) owed by the Non-Defaulting Party or its Affiliates to the Defaulting Party under any other agreement or arrangement; (iv) any Net Settlement Amount owed to the Defaulting Party against any amount(s) (including any excess cash margin or excess cash collateral) owed by the Defaulting Party to the Non-Defaulting Party or its Affiliates under any other agreement or arrangement; and/or (v) any Net Settlement Amount owed to the Defaulting Party against any amount(s) (including any excess cash margin or excess cash collateral) owed by the Defaulting Party or its Affiliates to the Non-Defaulting Party under any other agreement or arrangement.

Other Agreement Setoffs Do Not Apply:

10.3.2. The Non-Defaulting Party shall net or aggregate, as appropriate, any and all amounts owing between the parties under Section 10.3.1, so that all such amounts are netted or aggregated to a single liquidated amount payable by one party to the other (the "Net Settlement Amount"). At its sole option and without prior Notice to the Defaulting Party, the Non-Defaulting Party may setoff any Net Settlement Amount against any margin or other collateral held by a party in connection with any Credit Support Obligation relating to the Contract.

10.3.3. If any obligation that is to be included in any netting, aggregation or setoff pursuant to Section 10.3.2 is unascertained, the Non-Defaulting Party may in good faith estimate that obligation and net, aggregate or setoff, as applicable, in respect of the estimate, subject to the Non-Defaulting Party accounting to the Defaulting Party when the obligation is ascertained. Any amount not then due which is included in any netting, aggregation or setoff pursuant to Section 10.3.2 shall be discounted to net present value in a commercially reasonable manner determined by the Non-Defaulting Party.

10.4. As soon as practicable after a liquidation, Notice shall be given by the Non-Defaulting Party to the Defaulting Party of the Net Settlement Amount, and whether the Net Settlement Amount is due to or due from the Non-Defaulting Party. The Notice shall include a written statement explaining in reasonable detail the calculation of the Net Settlement Amount, provided that failure to give such Notice shall not affect the validity or enforceability of the liquidation or give rise to any claim by the Defaulting Party against the Non-Defaulting Party. The Net Settlement Amount as well as any setoffs applied against such amount pursuant to Section 10.3.2, shall be paid by the close of business on the second Business Day following such Notice, which date shall not be earlier than the Early Termination Date. Interest on any unpaid portion of the Net Settlement Amount as adjusted by setoffs, shall accrue from the date due until the date of payment at a rate equal to the lower of (i) the then-effective prime rate of interest published under "Money Rates" by The Wall Street Journal, plus two percent per annum; or (ii) the maximum applicable lawful interest rate.

10.5. The parties agree that the transactions hereunder constitute a "forward contract" within the meaning of the United States Bankruptcy Code and that Buyer and Seller are each "forward contract merchants" within the meaning of the United States Bankruptcy Code.

10.6. The Non-Defaulting Party's remedies under this Section 10 are the sole and exclusive remedies of the Non-Defaulting Party with respect to the occurrence of any Early Termination Date. Each party reserves to itself all other rights, setoffs, counterclaims and other defenses that it is or may be entitled to arising from the Contract.

10.7. With respect to this Section 10, if the parties have executed a separate netting agreement with close-out netting provisions, the terms and conditions therein shall prevail to the extent inconsistent herewith.

SECTION 11. FORCE MAJEURE

11.1. Except with regard to a party's obligation to make payment(s) due under Section 7, Section 10.4, and Imbalance Charges under Section 4, neither party shall be liable to the other for failure to perform a Firm obligation, to the extent such failure was caused by Force Majeure. The term "Force Majeure" as employed herein means any cause not reasonably within the control of the party claiming suspension, as further defined in Section 11.2.

11.2. Force Majeure shall include, but not be limited to, the following: (i) physical events such as acts of God, landslides, lightning, earthquakes, fires, storms or storm warnings, such as hurricanes, which result in evacuation of the affected area, floods, washouts, explosions, breakage or accident or necessity of repairs to machinery or equipment or lines of pipe; (ii) weather related events affecting an entire geographic region, such as low temperatures which cause freezing or failure of wells or lines of pipe; (iii) interruption and/or curtailment of Firm transportation and/or storage by Transporters; (iv) acts of others such as strikes, lockouts or other industrial disturbances, riots, sabotage, insurrections or wars, or acts of terror; and (v) governmental actions such as necessity for compliance with any court order, law, statute, ordinance, regulation, or policy having the effect of law promulgated by a governmental authority having jurisdiction. Seller and Buyer shall make reasonable efforts to avoid the adverse impacts of a Force Majeure and to resolve the event or occurrence once it has occurred in order to resume performance.

11.3. Neither party shall be entitled to the benefit of the provisions of Force Majeure to the extent performance is affected by any or all of the following circumstances: (i) the curtailment of interruptible or secondary Firm transportation unless primary, in-path, Firm transportation is also curtailed; (ii) the party claiming excuse failed to remedy the condition and to resume the performance of such covenants or obligations with reasonable dispatch; or (iii) economic hardship, to include, without limitation, Seller's ability to sell Gas at a higher or more advantageous price than the Contract Price, Buyer's ability to purchase Gas at a lower or more advantageous price than the Contract Price, or a regulatory agency disallowing, in whole or in part, the pass through of costs resulting from this Contract; (iv) the loss of Buyer's market(s) or Buyer's inability to use or resell Gas purchased hereunder, except, in either case, as provided in Section 11.2; or (v) the loss or failure of Seller's gas supply or depletion of reserves, except, in either case, as provided in Section 11.2. The party claiming Force Majeure shall not be excused from its responsibility for Imbalance Charges.

11.4. Notwithstanding anything to the contrary herein, the parties agree that the settlement of strikes, lockouts or other industrial disturbances shall be within the sole discretion of the party experiencing such disturbance.

11.5. The party whose performance is prevented by Force Majeure must provide Notice to the other party. Initial Notice may be given orally; however, written Notice with reasonably full particulars of the event or occurrence is required as soon as reasonably possible. Upon providing written Notice of Force Majeure to the other party, the affected party will be relieved of its obligation, from the onset of the Force Majeure event, to make or accept delivery of Gas, as applicable, to the extent and for the duration of Force Majeure, and neither party shall be deemed to have failed in such obligations to the other during such occurrence or event.

11.6. Notwithstanding Sections 11.2 and 11.3, the parties may agree to alternative Force Majeure provisions in a Transaction Confirmation executed in writing by both parties.

SECTION 12. TERM

This Contract may be terminated on 30 Day's written Notice, but shall remain in effect until the expiration of the latest Delivery Period of any transaction(s). The rights of either party pursuant to Section 7.6, Section 10, Section 13, the obligations to make payment hereunder, and the obligation of either party to indemnify the other, pursuant hereto shall survive the termination of the Base Contract or any transaction.

SECTION 13. LIMITATIONS

FOR BREACH OF ANY PROVISION FOR WHICH AN EXPRESS REMEDY OR MEASURE OF DAMAGES IS PROVIDED, SUCH EXPRESS REMEDY OR MEASURE OF DAMAGES SHALL BE THE SOLE AND EXCLUSIVE REMEDY. A PARTY'S LIABILITY HEREUNDER SHALL BE LIMITED AS SET FORTH IN SUCH PROVISION, AND ALL OTHER REMEDIES OR DAMAGES AT LAW OR IN EQUITY ARE WAIVED. IF NO REMEDY OR MEASURE OF DAMAGES IS EXPRESSLY PROVIDED HEREIN OR IN A TRANSACTION, A PARTY'S LIABILITY SHALL BE LIMITED TO DIRECT ACTUAL DAMAGES ONLY. SUCH DIRECT ACTUAL DAMAGES SHALL BE THE SOLE AND EXCLUSIVE REMEDY, AND ALL OTHER REMEDIES OR DAMAGES AT LAW OR IN EQUITY ARE WAIVED. UNLESS EXPRESSLY HEREIN PROVIDED, NEITHER PARTY SHALL BE LIABLE FOR CONSEQUENTIAL, INCIDENTAL, PUNITIVE, EXEMPLARY OR INDIRECT DAMAGES, LOST PROFITS OR OTHER BUSINESS INTERRUPTION DAMAGES, BY STATUTE, IN TORT OR CONTRACT, UNDER ANY INDEMNITY PROVISION OR OTHERWISE. IT IS THE INTENT OF THE PARTIES THAT THE LIMITATIONS HEREIN IMPOSED ON REMEDIES AND THE MEASURE OF DAMAGES BE WITHOUT REGARD TO THE CAUSE OR CAUSES RELATED THERETO, INCLUDING THE NEGLIGENCE OF ANY PARTY, WHETHER SUCH NEGLIGENCE BE SOLE, JOINT OR CONCURRENT, OR ACTIVE OR PASSIVE. TO THE EXTENT ANY DAMAGES REQUIRED TO BE PAID HEREUNDER ARE LIQUIDATED, THE PARTIES ACKNOWLEDGE THAT THE DAMAGES ARE DIFFICULT OR IMPOSSIBLE TO DETERMINE, OR OTHERWISE OBTAINING AN ADEQUATE REMEDY IS INCONVENIENT AND THE DAMAGES CALCULATED HEREUNDER CONSTITUTE A REASONABLE APPROXIMATION OF THE HARM OR LOSS.

SECTION 14. MARKET DISRUPTION

If a Market Disruption Event has occurred then the parties shall negotiate in good faith to agree on a replacement price for the Floating Price (or on a method for determining a replacement price for the Floating Price) for the affected Day, and if the parties have not so agreed on or before the second Business Day following the affected Day then the replacement price for the Floating Price shall be determined within the next two following Business Days with each party obtaining, in good faith and from non-affiliated market participants in the relevant market, two quotes for prices of Gas for the affected Day of a similar quality and quantity in the geographical location closest in proximity to the Delivery Point and averaging the four quotes. If either party fails to provide two quotes then the average of the other party's two quotes shall determine the replacement price for the Floating Price. "Floating Price" means the price or a factor of the price agreed to in the transaction as being based upon a specified index. "Market Disruption Event" means, with respect to an index specified for a transaction, any of the following events: (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 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) both parties agree that a material change in the formula for or the method of determining the Floating Price has occurred. For the purposes of the calculation of a replacement price for the Floating Price, all numbers shall be rounded to three decimal places. If the fourth decimal number is five or greater, then the third decimal number shall be increased by one and if the fourth decimal number is less than five, then the third decimal number shall remain unchanged.

SECTION 15. MISCELLANEOUS

15.1. This Contract shall be binding upon and inure to the benefit of the successors, assigns, personal representatives, and heirs of the respective parties hereto, and the covenants, conditions, rights and obligations of this Contract shall run for the full term of this Contract. No assignment of this Contract, in whole or in part, will be made without the prior written consent of the non-assigning party (and shall not relieve the assigning party from liability hereunder), which consent will not be unreasonably withheld or delayed; provided, either party may (i) transfer, sell, pledge, encumber, or assign this Contract or the accounts, revenues, or proceeds hereof in connection with any financing or other financial arrangements, or (ii) transfer its interest to any parent or Affiliate by assignment, merger or otherwise without the prior approval of the other party. Upon any such assignment, transfer and assumption, the transferor shall remain principally liable for and shall not be relieved of or discharged from any obligations hereunder.

15.2. If any provision in this Contract is determined to be invalid, void or unenforceable by any court having jurisdiction, such determination shall not invalidate, void, or make unenforceable any other provision, agreement or covenant of this Contract.

15.3. No waiver of any breach of this Contract shall be held to be a waiver of any other or subsequent breach.

15.4. This Contract sets forth all understandings between the parties respecting each transaction subject hereto, and any prior contracts, understandings and representations, whether oral or written, relating to such transactions are merged into and superseded by this Contract and any effective transaction(s). This Contract may be amended only by a writing executed by both parties.

15.5. The interpretation and performance of this Contract shall be governed by the laws of the jurisdiction as indicated on the Base Contract, excluding, however, any conflict of laws rule which would apply the law of another jurisdiction.

15.6. This Contract and all provisions herein will be subject to all applicable and valid statutes, rules, orders and regulations of any governmental authority having jurisdiction over the parties, their facilities, or Gas supply, this Contract or transaction or any provisions thereof.

15.7. There is no third party beneficiary to this Contract.

15.8. Each party to this Contract represents and warrants that it has full and complete authority to enter into and perform this Contract. Each person who executes this Contract on behalf of either party represents and warrants that it has full and complete authority to do so and that such party will be bound thereby.

15.9. The headings and subheadings contained in this Contract are used solely for convenience and do not constitute a part of this Contract between the parties and shall not be used to construe or interpret the provisions of this Contract.

15.10. Unless the parties have elected on the Base Contract not to make this Section 15.10 applicable to this Contract, neither party shall disclose directly or indirectly without the prior written consent of the other party the terms of any transaction to a third party (other than the employees, lenders, royalty owners, counsel, accountants and other agents of the party, or prospective purchasers of all or substantially all of a party's assets or of any rights under this Contract, provided such persons shall have agreed to keep such terms confidential) except (i) in order to comply with any applicable law, order, regulation, or exchange rule, (ii) to the extent necessary for the enforcement of this Contract, (iii) to the extent necessary to implement any transaction, (iv) to the extent necessary to comply with a regulatory agency's reporting requirements including but not limited to gas cost recovery proceedings; or (v) to the extent such information is delivered to such third party for the sole purpose of calculating a published index. Each party shall notify the other party of any proceeding of which it is aware which may result in disclosure of the terms of any transaction (other than as permitted hereunder) and use reasonable efforts to prevent or limit the disclosure. The existence of this Contract is not subject to this confidentiality obligation. Subject to Section 13, 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 terms of any transaction hereunder shall be kept confidential by the parties hereto for one year from the expiration of the transaction.

In the event that disclosure is required by a governmental body or applicable law, the party subject to such requirement may disclose the material terms of this Contract to the extent so required, but shall promptly notify the other party, prior to disclosure,

and shall cooperate (consistent with the disclosing party's legal obligations) with the other party's efforts to obtain protective orders or similar restraints with respect to such disclosure at the expense of the other party.

15.11. The parties may agree to dispute resolution procedures in Special Provisions attached to the Base Contract or in a Transaction Confirmation executed in writing by both parties

15.12. Any original executed Base Contract, Transaction Confirmation or other related document may be digitally copied, photocopied, or stored on computer tapes and disks (the "Imaged Agreement"). The Imaged Agreement, if introduced as evidence on paper, the Transaction Confirmation, if introduced as evidence in automated facsimile form, the recording, if introduced as evidence in its original form, and all computer records of the foregoing, if introduced as evidence in printed format, in any judicial, arbitration, mediation or administrative proceedings will be admissible as between the parties to the same extent and under the same conditions as other business records originated and maintained in documentary form. Neither Party shall object to the admissibility of the recording, the Transaction Confirmation, or the Imaged Agreement on the basis that such were not originated or maintained in documentary form. However, nothing herein shall be construed as a waiver of any other objection to the admissibility of such evidence.

DISCLAIMER: The purposes of this Contract are to facilitate trade, avoid misunderstandings and make more definite the terms of contracts of purchase and sale of natural gas. Further, NAESB does not mandate the use of this Contract by any party. **NAESB DISCLAIMS AND EXCLUDES, AND ANY USER OF THIS CONTRACT ACKNOWLEDGES AND AGREES TO NAESB'S DISCLAIMER OF, ANY AND ALL WARRANTIES, CONDITIONS OR REPRESENTATIONS, EXPRESS OR IMPLIED, ORAL OR WRITTEN, WITH RESPECT TO THIS CONTRACT OR ANY PART THEREOF, INCLUDING ANY AND ALL IMPLIED WARRANTIES OR CONDITIONS OF TITLE, NON-INFRINGEMENT, MERCHANTABILITY, OR FITNESS OR SUITABILITY FOR ANY PARTICULAR PURPOSE (WHETHER OR NOT NAESB KNOWS, HAS REASON TO KNOW, HAS BEEN ADVISED, OR IS OTHERWISE IN FACT AWARE OF ANY SUCH PURPOSE), WHETHER ALLEGED TO ARISE BY LAW, BY REASON OF CUSTOM OR USAGE IN THE TRADE, OR BY COURSE OF DEALING. EACH USER OF THIS CONTRACT ALSO AGREES THAT UNDER NO CIRCUMSTANCES WILL NAESB BE LIABLE FOR ANY DIRECT, SPECIAL, INCIDENTAL, EXEMPLARY, PUNITIVE OR CONSEQUENTIAL DAMAGES ARISING OUT OF ANY USE OF THIS CONTRACT.**

TRANSACTION CONFIRMATION
FOR IMMEDIATE DELIVERY

EXHIBIT A

Letterhead/Logo	Date: _____ Transaction Confirmation #: _____			
This Transaction Confirmation is subject to the Base Contract between Seller and Buyer dated _____. The terms of this Transaction Confirmation are binding unless disputed in writing within 2 Business Days of receipt unless otherwise specified in the Base Contract.				
SELLER: _____ _____ Attn: _____ Phone: _____ Fax: _____ Base Contract No. _____ Transporter: _____ Transporter Contract Number: _____	BUYER: _____ _____ Attn: _____ Phone: _____ Fax: _____ Base Contract No. _____ Transporter: _____ Transporter Contract Number: _____			
Contract Price: \$ ____/MMBtu or _____				
Delivery Period: Begin: _____, _____ End: _____, _____				
Performance Obligation and Contract Quantity: (Select One) <table style="width: 100%;"> <tr> <td style="width: 33%; vertical-align: top;"> Firm (Fixed Quantity): _____ MMBtus/day <input type="checkbox"/> EFP </td> <td style="width: 33%; vertical-align: top;"> Firm (Variable Quantity): _____ MMBtus/day Minimum _____ MMBtus/day Maximum subject to Section 4.2. at election of <input type="checkbox"/> Buyer or <input type="checkbox"/> Seller </td> <td style="width: 33%; vertical-align: top;"> Interruptible: Up to _____ MMBtus/day </td> </tr> </table>		Firm (Fixed Quantity): _____ MMBtus/day <input type="checkbox"/> EFP	Firm (Variable Quantity): _____ MMBtus/day Minimum _____ MMBtus/day Maximum subject to Section 4.2. at election of <input type="checkbox"/> Buyer or <input type="checkbox"/> Seller	Interruptible: Up to _____ MMBtus/day
Firm (Fixed Quantity): _____ MMBtus/day <input type="checkbox"/> EFP	Firm (Variable Quantity): _____ MMBtus/day Minimum _____ MMBtus/day Maximum subject to Section 4.2. at election of <input type="checkbox"/> Buyer or <input type="checkbox"/> Seller	Interruptible: Up to _____ MMBtus/day		
Delivery Point(s): _____ (If a pooling point is used, list a specific geographic and pipeline location):				
Special Conditions:				
Seller: _____ By: _____ Title: _____ Date: _____	Buyer: _____ By: _____ Title: _____ Date: _____			

SPECIAL PROVISIONS
TO BASE CONTRACT FOR SALE AND PURCHASE OF NATURAL GAS
(FORM NAESB Standard 6.3.1, September 5, 2006)
BY AND BETWEEN J.P. MORGAN VENTURES ENERGY CORPORATION AND
NORTHERN CALIFORNIA POWER AGENCY

These Special Provisions ("Special Provisions") to the "Base Contract for Sale and Purchase of Natural Gas" and the "General Terms and Conditions for Sale and Purchase of Natural Gas", (collectively referred to as the "Contract") with the Northern California Power Agency ("NCPA") are hereby incorporated by reference into the Contract and supplement, modify and amend the Contract, as follows:

1. Amendment of Contract

a. Only Gas transactions entered into between the parties to supply Gas to NCPA's Lodi Energy Center Project on or after the date hereof, shall be governed by this Contract as amended by these Special Provisions. Except as amended herein, any existing Contract with the NCPA shall remain in full force and effect.

b. The Contract, together with these Special Provisions, and those documents incorporated by specific reference therein, represent the entire and integrated agreement with NCPA, and supersede all prior oral or written negotiations, representations or agreements with respect to the subject matter hereof.

c. If any provision of the Contract is conflicting or inconsistent with any provision contained in these Special Provisions, the Special Provisions shall prevail and govern.

2. Section 1- Purpose and Procedures

a. Section 1.2- Oral Transaction Procedure- Section 1.2 is hereby deleted and replaced with the following:

"1.2. The parties will use the following Transaction Confirmation procedure. Any Gas purchase and sale transaction may be effectuated in an EDI transmission or telephone conversation with the offer and acceptance constituting the agreement of the parties. The parties shall be legally bound from the time they so agree to transaction terms and may each rely thereon. Any such transaction shall be considered a "writing" and to have been "signed". Notwithstanding the foregoing sentence, the parties agree that Confirming Party shall, and the other party may, confirm a telephonic transaction by sending the other party a Transaction Confirmation by facsimile, EDI or mutually agreeable electronic means within three Business Days of a transaction covered by this Section 1.2 (Oral Transaction Procedure) provided that the failure to send a Transaction Confirmation shall not invalidate the oral agreement of the parties. If the Transaction Confirmation contains any provisions other than those relating to the commercial terms of the transaction (i.e., price, quantity, performance obligation, delivery point, period of delivery and/or transportation conditions), which are intended to modify or supplement the Base Contract or General Terms and

Conditions of this Contract *or these Special Provisions* (e.g., arbitration or additional representations and warranties), such provisions shall not be deemed to be accepted pursuant to Section 1.3 but must be expressly agreed to by both parties; provided that the foregoing shall not invalidate any transaction agreed to by the parties.”

- b. Section 1.4- Section 1.4 is hereby deleted and replaced with the following:

“1.4. The parties agree that each party may electronically record all telephone conversations with respect to this Contract between their respective employees, without any special or further notice to the other party. Each party shall obtain any necessary consent of its agents and employees to such recording. Where the parties have selected the Oral Transaction Procedure in Section 1.2 of the Base Contract, the parties agree not to contest the validity or enforceability of telephonic recordings entered into in accordance with the requirements of this Base Contract. *For those transactions documented by telephone recordings, no such transaction shall be vitiated should a malfunction occur in equipment regularly utilized for recording transactions or retaining any recorded transactions or the operation thereof, and in such event the transaction shall be confirmed and evidenced by the written and computer records of the parties concerning the transaction made contemporaneously with the telephone conversation.*”

- c. Section 1.5 – The following shall be added as a new Section 1.5.

“1.5 The parties hereto agree that only transactions to supply Gas to NCPA’s Lodi Energy Center Project shall be entered into under this Contract.”

3. Section 2- Definitions

In addition to the terms specifically defined elsewhere in these Special Provisions, that following definitions are hereby modified or added to the Contract:

- a. Section 2.9- “Contract”- Section 2.9 is hereby deleted and replaced with the following:

“2.9. “Contract” shall mean the legally-binding relationship established by (i) the Base Contract, (ii) the Special Provisions; (iii) any and all binding Transaction Confirmations and (iv) where the parties have selected the Oral Transaction Procedure in Section 1.2 of the Base Contract, any and all transactions that the parties have entered into through an EDI transmission or by telephone, but that have not been confirmed in a binding Transaction Confirmation, all of which shall form a single integrated agreement between the parties.”

- b. Section 2.32- “Transaction Confirmation”- Section 2.32 is hereby deleted and replaced with the following:

“2.32. “Transaction Confirmation” shall mean a document, similar to the form of Exhibit A, setting forth the terms of a transaction formed pursuant to Section 1 for a particular Delivery Period.”

- c. Section 2.36- “Citygate”- Add the following additional definition:

“2.36 “Citygate” shall mean any of the points on the PG&E Pipelines at which the backbone transmission system of PG&E for natural gas connects with its local transmission and distribution system.

- d. Section 2.37- “Citygate Gas”- Add the following additional definition:

“2.37 “Citygate Gas” shall mean Gas delivered at PG&E Citygate.”

- e. Section 2.38- “Credit Rating”- Add the following additional definition:

“2.38 “Credit Rating” means, with respect (i) to Party A, 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 Party A’s Guarantor’s senior unsecured long-term debt obligations (not supported by insurance provider enhancements) or if Party A’s Guarantor does not have a rating for its senior unsecured long-term debt, then the rating then assigned 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. The standing guaranty in favor of Party A’s shall not be considered to constitute “third party credit enhancement” for purposes of this definition. In the event Party A’s Guarantor has multiple ratings, the lower rating shall prevail, and (ii) to Party B, the lowest 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 Party B’s Lodi Energy Center Project or Revenue Bonds (not supported by insurance provider enhancements), or if Party B does not have a rating for its Lodi Energy Center Project Bonds or Revenue Bonds, then the lowest rating assigned by Moody’s and S&P to the California Department of Water Resources, Modesto Irrigation District, or City of Santa Clara. In the event Party B has multiple ratings, the lower rating shall prevail.”

- f. Section 2.39- “Delivering Pipelines”- Add the following additional definition:

“2.39 “Delivering Pipelines” shall mean any pipeline(s) required to transport Buyer’s gas from a Transfer Point to and including the Delivery Point.”

- g. Section 2.40- “PG&E”- Add the following additional definition:

“2.40 “PG&E” shall mean Pacific Gas & Electric Company.

- h. Section 2.41- “PG&E Citygate Pool”- Add the following additional definition:

“2.41 “PG&E Citygate Pool” shall mean, unless the context indicates otherwise, Seller’s account with PG&E where PG&E tracks on a daily and monthly basis, the total quantity of Gas nominated for delivery to Seller at PG&E Citygate (all additions to Seller’s PG&E Citygate Pool) during a Day or Month and the total quantity of Gas that Seller nominates for delivery to PG&E meters or otherwise disposes of via delivery nominations submitted to PG&E (all deductions from Seller’s PG&E Citygate Pool) during such Day or Month -- all as adjusted by PG&E for any variances between such nominations and the applicable quantities of Gas actually received or delivered during such Day or Month. At the end of any Gas Day or Month, the balance in Seller’s PG&E Citygate Pool may be positive, zero, or negative.”

- i. Section 2.42- "PG& E Tariff"- Add the following additional definition:
"2.42 "PG&E Tariff" shall mean shall mean the Tariff or Tariffs applicable to the transportation and Delivery by PG&E of Gas to the Delivery Point, as approved by the California Public Utilities Commission and as amended from time to time, and including its "Gas Rule No. 21- Transportation of Natural Gas."
- j. Section 2.43- "Special Provisions"- Add the following additional definition:
"2.43 "Special Provisions" shall mean the "Special Provisions To Base Contract For Sale And Purchase Of Natural Gas (Form NAESB Standard 6.3.1, September 5, 2006)" attached to this Contract and incorporated into this Contract by reference."
- k. Section 2.44- "Tariff"- Add the following additional definition:
"2.44 "Tariff" shall mean shall mean the effective tariff, rules and regulations of a Transporter(s), as approved from time to time by the governmental authority having jurisdiction over such Transporter, including the California Public Utilities Commission and the Federal Energy Regulatory Commission, and as amended from time to time."
- l. Section 2.45- "Transfer Point"- Add the following additional definition:
"2.45 "Transfer Point" shall mean the point to be mutually agreed by both Buyer and Seller at which Title to Gas passes to Buyer and is received for the account of Buyer."

4. Section 3- Performance Obligation

- a. Section 3.2- Cover Standard - Section 3.2 is hereby amended by adding the following at the end of the paragraph:
"For clarity, adjustments for "commercially reasonable differences in transportation costs" shall mean reasonable transportation costs actually incurred that are not imbedded in the price paid by Buyer or received by Seller and which costs are resulting from alternate transportation arrangements made by the non-breaching party to purchase or sell Gas at an alternate delivery point."
- b. Section 3.4- Section 3.4 is hereby deleted and replaced with the following:
"3.4. In addition to Sections 3.2 and 3.3, the parties may provide for a Termination Option in a Transaction Confirmation executed in writing by both parties. The Transaction Confirmation containing the Termination Option will designate the length of nonperformance triggering the Termination Option and the procedures for exercise thereof, how damages for nonperformance will be compensated, and how liquidation costs will be calculated. *For any transactions with a Delivery Period that exceeds one Month, if Seller fails to deliver the Contract Quantity on 5 days in any 30 day period, and such breach is not excused due to an event of Force Majeure, then Seller shall be in Default, and Buyer shall have a right to terminate this Agreement under Section 10.3, as though a Default specified in 10.2 occurred and is continuing after notice.*"

5. Section 7- Billing, Payment, And Audit

- a. Section 7.1- Section 7.1 is amended by inserting the following after the first sentence:

“Seller shall calculate the invoiced amount for Gas delivered rounded to the fourth decimal place or as provided by the Delivering Pipelines or PG&E.”

- b. Section 7.4- Section 7.4 is hereby deleted and replaced with the following:

“7.4. If the invoiced party, in good faith, disputes the amount of any such invoice or any part thereof, such invoiced party will pay such amount as it concedes to be correct; provided, however, if the invoiced party disputes the amount due, it must provide supporting documentation acceptable in industry practice to support the amount paid or disputed without undue delay. *If it is ultimately determined that Buyer owes all or a portion of the disputed amount, Buyer shall pay Seller that amount within two Business Days of such determination, along with interest (as defined in Section 7.5) from and including the original payment due date to but excluding the date payment is made.* In the event the parties are unable to resolve such dispute, either party may pursue any remedy available at law or in equity to enforce its rights pursuant to this Section.”

6. Section 8- Title, Warranty, And Indemnity

- a. Section 8.1- Section 8.1 is hereby deleted and replaced with the following:

“8.1. Title, Possession and Control.

“(a) Title. Unless otherwise specifically agreed, title to the Gas shall pass from Seller to Buyer at the Transfer Point(s). Except as otherwise specified in Subsections 8.1(b) or (c), Seller shall have responsibility for and assume any liability with respect to the Gas prior to its delivery to Buyer at the specified Delivery Point(s) and Buyer shall have responsibility for and assume any liability with respect to said Gas after its delivery to Buyer at the Delivery Point(s).

(b) PG&E Citygate Gas. As between the Parties hereto, Seller as Buyer’s agent, shall be, or shall be deemed to be, in exclusive control and possession of all PG&E Citygate Gas hereunder and responsible for any loss, damage, or injury caused thereby until such Gas is delivered or deemed delivered to any third party at the Delivery Point or to any pipeline or facility downstream of the Delivery Point pursuant to an applicable NDV, at which time Buyer shall be deemed to be in exclusive control and possession of such Gas and responsible for any loss, damage or injury caused thereby. Seller shall indemnify and hold Buyer pursuant to Section 8.3 harmless from all Claims arising from such agency relationship.

(c) Transfer Point Gas. As between the Parties hereto, Seller, as Buyer’s agent, shall indemnify and hold Buyer harmless from all imbalance charges or penalties which result from Seller’s failure to make nominations on the Delivering

Pipelines in accordance with Seller's appointment as agent under the terms of this Contract."

- b. Section 8.3- Section 8.3 is hereby deleted and replaced with the following:

"8.3. Indemnity.

(a) Seller agrees to indemnify Buyer and save it harmless from all losses, liabilities, suits, claims, liens, damages, costs, losses, expenses, and encumbrances including claims including reasonable attorneys' fees and costs of court (collectively, "Claims"), from any and all persons, arising from or out of claims of title, personal injury (including death) or property damage from said Gas or other charges thereon which attach before possession and control passes to Buyer at the Delivery Point. Buyer agrees to indemnify Seller and save it harmless from all Claims, from any and all persons, arising from or out of claims regarding payment, personal injury (including death) or property damage from said Gas or other charges thereon which attach after possession and control passes to Buyer at the Delivery Point.

(b) Seller shall also indemnify and hold Buyer harmless from all Claims of any or all persons to the Gas or title thereto, or to royalties, taxes, license fees, payments, or other charges thereon applicable before title passes to Buyer at the Transfer Point. Buyer shall indemnify and save Seller harmless from all Claims from and out of Claims of any or all persons to said Gas or title thereto, or to royalties, taxes, license fees, transportation or other similar charges thereon applicable after title passes to Buyer at the Transfer Point.

(c) Neither Party shall be responsible nor liable for any taxes or other statutory charges levied or assessed against any of the facilities of the other Party used for the purpose of carrying out the provisions of this Agreement."

7. Section 10- Financial Responsibility

- a. Section 10.1- Section 10.1 is hereby deleted and replaced with the following:

"The source of payment from Northern California Power Agency under this Contract will be limited to amounts received by the Northern California Power Agency in connection with that certain Lodi Energy Center Power Sales Agreement between Customer and Each of the Public Agencies Signatory Thereto dated May 24, 2010 ("LEC PSA"). If either party ("X") has reasonable grounds for insecurity regarding the performance of any obligation under this Contract (whether or not then due) by the other party ("Y") (including, without limitation, the occurrence of a material change in the creditworthiness of Y), X may demand Adequate Assurance of Performance. "A material change in the creditworthiness of" a party means (i) if Party A or its Guarantor has a Credit Rating from S&P of BBB- or above, or a rating from Moody's of Baa3 or above, the Credit Rating of Party A or its Guarantor falls below BBB- or is no longer provided by S&P, or Baa3 or is no longer provided by Moody's, and (ii) if applicable Credit Rating with respect to Party B, as set forth in the definition Credit Rating, falls below BBB or Baa2 or is no longer provided by S&P or Moody's and Party B no longer has the legal right to demand that its members and participants adjust electric rates as necessary to fully recover the total costs Party B is obligated to pay under

this Contract. "Adequate Assurance of Performance" means sufficient security in the form and for the term reasonably acceptable to X, including, but not limited to, a standby irrevocable Letter of Credit, a prepayment, a performance bond, or a security interest in an asset acceptable to X and in an amount equal to the Net Settlement Amount calculated in accordance with the provisions of Section 10 as if the Early Termination Date occurred on the date of demand by X."

- b. Section 10.3.1- Section 10.3.1 is hereby amended to add the following sentence to the end of the first paragraph of the **Section 10.3.1** of the Base Contract:

"If the determination pursuant to clauses (x) and (y) above of the difference between the Market Value(s) and Contract Value(s) of all the Terminated Transactions does not result in an amount being owed to the Non-Defaulting Party, it shall be deemed that such difference is zero."

- c. Section 10.3.2 – Section 10.3.2 is hereby amended by (i) adding in the sixth line after the word "parties" the following words: "solely related to the Lodi Energy Center", (ii) in the ninth line after the word "arrangement" the following words: "solely related to the Lodi Energy Center", (iii) in the eleventh line after the word "arrangement" the following words: "solely related to the Lodi Energy Center", and (iv) in the last line after the word "arrangement" the following words: "solely related to the Lodi Energy Center"

- d. Section 10.8. The following provision is added as Section 10.8:

"Upon request, each Party shall deliver to the other Party documentation reasonably requested to evidence the authority and power of such Party and/or its Guarantor, as the case may be, to enter into this Base Contract or any guaranty, as the case may be, which may include, without limitation, certified resolutions and a certification of the signature and authority of the individual(s) executing this Agreement or such guaranty, as the case may be and to the extent applicable and requested certificates, documents or other evidence sufficient to confirm the sales tax exempt status of such Party for each jurisdiction in which the purchase, sale and/or delivery of any physical commodity takes place under this Agreement, such that the other party will bear no obligation in relation to such purchase, sale and/or delivery for charging, collecting or remitting sales, use or other excise taxes to any local, municipal, state or federal taxing authority or agency.

8. **Section 11- Force Majeure**

- a. Section 11.1- Section 11.1 is hereby deleted and replaced with the following:

"11.1. Except with regard to a party's obligation to make payment(s) due under Section 7, Section 10.4, and Imbalance Charges under Section 4, neither party shall be liable to the other for failure to perform a Firm obligation, to the extent such failure was caused by Force Majeure. The term "Force Majeure" as employed herein, means any cause not reasonably within the control of the party claiming suspension, *the occurrence of which could not have been prevented by the exercise of reasonable diligence*, and as further defined in Section 11.2."

- b. Section 11.3- Section 11.3 shall be amended by deleting item (v) in its entirety and replacing it with the following:

“(v) the loss or failure of Seller’s gas supply or reserves, any particular gas well(s) or gas field(s), or the interruption of Seller right to purchase or transport gas under any particular contract or contract path, except in all cases, as provided in Section 11.2 ”

- c. Section 11.5- Section 11.5 is hereby deleted and replaced with the following:

“11.5 The party whose performance is prevented by Force Majeure must provide Notice to the other party, *specifying the circumstances that support its claim of Force Majeure*. Initial Notice may be given orally; however, written Notice with reasonably full particulars of the event or occurrence is required as soon as reasonably possible. Upon providing written Notice of Force Majeure to the other party, the affected party will be relieved of its obligation, from the onset of the Force Majeure event, to make or accept delivery of Gas, as applicable, to the extent and for the duration of Force Majeure, and neither party shall be deemed to have failed in such obligations to the other during such occurrence or event.”

- d. New Subsections- The following subsections hereby added to Section 11:

“11.7 For clarity, Force Majeure shall not require the parties to deliver or receive the Gas at points other than the Delivery Point.”

“11.8 If, on any Day, Force Majeure partially restrains a Seller’s ability to perform its Firm obligations for any transaction at a Delivery Point, Seller shall delivery to Buyer its proportionate share of the available gas supply as calculated ratably among Buyer and its other Firm customers, to the maximum extent feasible, in the percentage proportion of the contract quantity due each customer compared to the aggregate contract quantity of Seller’s Firm Gas sales commitments at the time of the curtailment without regard to the price received for Gas. The Seller will not perform under any interruptible sale arrangement at that Delivery Point until all Firm obligations are fulfilled.”

9. **Section 15- Miscellaneous**

- a. Section 15.1- Section 15.1 is hereby deleted and replaced with the following:

“15.1. This Contract shall be binding upon and inure to the benefit of the successors, assigns, personal representatives, and heirs of the respective parties hereto, and the covenants, conditions, rights and obligations of this Contract shall run for the full term of this Contract. No assignment of this Contract, in whole or in part, will be made without the prior written consent of the non-assigning party, which consent will not be unreasonably withheld or delayed; provided, either party may (i) transfer, sell, pledge, encumber, or assign this Contract or the accounts, revenues, or proceeds hereof in connection with any financing or other financial arrangements, or (ii) transfer its interest to any parent or Affiliate of equal or greater creditworthiness by assignment, merger or otherwise without the prior approval of the other party. Upon any such assignment, transfer and assumption, the transferor shall remain principally liable for any obligations hereunder unless specifically relieved of or discharged from any such obligations hereunder in writing by the non-assigning party.

- b. Section 15.3- The following is added at the end of Section 15.3:
- “No delay or omission by a party in the exercise of any right hereunder shall be construed as a waiver or relinquishment thereof.”
- c. Section 15.5- Section 15.5 is hereby deleted and replaced with the following:
- “15.5 The interpretation and performance of this Contract shall be governed by the laws of the State of California excluding conflicts of law rules which would apply the law of another jurisdiction. Venue for any action arising out of this Contract shall be the United States District Court, Eastern District, Sacramento Division, or in the Superior Court of the State of California in and for the County of Sacramento exclusively. The parties hereto consent and agree that the above-named courts shall have personal jurisdiction over the parties in any such action and that venue is proper in such courts.” **EACH PARTY HEREBY IRREVOCABLY WAIVES ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY SUIT, ACTION OR PROCEEDING ARISING OUT OF OR RELATING TO THIS BASE CONTRACT OR ANY TRANSACTION AND ACKNOWLEDGES THAT THIS WAIVER IS A MATERIAL INDUCEMENT TO THE OTHER PARTY’S ENTERING INTO THIS BASE CONTRACT.”**
- d. **Section 15.8.** Section 15.8 is hereby amended by inserting at the end thereof the following:
- “Each party will be deemed to represent to the other party on the date on which it enters into a transaction or Transaction Confirmation that (absent a written agreement between the Parties that expressly imposes affirmative obligations to the contrary for that transaction or Transaction Confirmation):
- (i) **Non-Reliance.** It is acting for its own account, and it has made its own independent decisions to enter into that transaction and Transaction Confirmation and as to whether that transaction and Transaction Confirmation is appropriate or proper for it based upon its own judgment and upon advice from such advisers as it has deemed necessary. It is not relying on any communication (written or oral) of the other party as investment advice or as a recommendation to enter into that transaction or Transaction Confirmation; it being understood that information and explanations related to the terms and conditions of a transaction and Transaction Confirmation shall not be considered investment advice or a recommendation to enter into that transaction or Transaction Confirmation. No communication (written or oral) received from the other party shall be deemed to be an assurance or guarantee as to the expected results of that transaction or Transaction Confirmation.
- (ii) **Assessment and Understanding.** It is capable of assessing the merits of and understanding (on its own behalf or through independent professional advice), and understands and accepts the terms, conditions and risks of that

transaction and Transaction Confirmation. It is also capable of assuming, and assumes, the risks of that transaction and Transaction Confirmation.

(iii) **Status of Parties.** The other party is not acting as a fiduciary for or an adviser to it in respect of that transaction or Transaction Confirmation. Each party understands and acknowledges that the other party may, either in connection with entering into a transaction or from time to time thereafter, engage in open market transactions that are designed to hedge or reduce the risks incurred by it in connection with such transaction and that the effect of such open market transactions may be to affect or reduce the value of such transaction.

- e. **Section 15.10.** Section 15.10 is hereby amended by: (a) inserting the words "or as is disclosed to regulators or examiners" immediately after "exchange rule" in the fifth line of the first paragraph; and (b) inserting immediately after "shall promptly notify" and before "the other party" in the first line of the second paragraph thereof the phrase, "if permissible"

J.P. Morgan Ventures Energy Corporation

Approved by: 

Name: **Patrick Strange**
Title: Managing Director

Date: 7-26-10

By: _____

Name:

Title:

Date:

Northern California Power Agency

Approved by: 

Name: James H. Pope
Title: General Manager

Date: 7/20/10

Approved as to Form:

By: 

Name: Michael Dean

Title: General Counsel

Date: 7-19-2010

MASTER TRANSACTION CONFIRMATION

"CONFIDENTIALITY NOTICE: The information is intended only for the use of the individual or entity named below. If you are not the intended recipient, you are hereby notified that any disclosure, copying, distribution, or taking of any action in reliance on the contents of this information is strictly prohibited. If you have received this transmission in error, please immediately notify us by telephone to arrange for return of the documents."

Date: June 22, 2010
To: Northern California Power Agency
Attention:
Fax No.:
From: Mary Joyce Angioli
Fax No.:

We are pleased to confirm the transaction described below that was entered into between **Northern California Power Agency** ("Customer" or "Buyer") and **J.P. Morgan Ventures Energy Corporation** ("Supplier" or "Seller") on June 22, 2010. This Master Transaction Confirmation shall be governed in accordance with and is subject to the provisions of that certain North American Energy Standards Board Base Contract for Sale and Purchase of Natural Gas dated June 22, 2010 between Customer and Supplier (the "Contract"), as amended by the Special Provisions to Base Contract for Sale and Purchase of Natural Gas (the "Special Provisions"). This Master Transaction Confirmation is intended to supplement, modify and amend the Contract and Special Provisions, which are hereby incorporated by reference, as set forth below. Terms used in this Master Transaction Confirmation but not specifically defined herein shall have the meanings ascribed to them in the Contract, as modified by the Special Provisions.

We confirm the following terms of our transaction:

A. Type of Service: Firm, full requirements less the Net Third Party Supply (as hereinafter defined), for the Lodi Energy Center (the "Lodi Energy Center").

B. Delivery Period: The Delivery Period for the transaction confirmed by this Master Transaction Confirmation shall commence on the date that Lodi Energy Center requires Gas for testing purposes (the "Start Date") and shall continue until terminated by either party hereto upon six (6) Months prior written Notice to the other party hereto, which such Notice may not be given prior to the date that is the first (1st) anniversary of the first Day of the Month immediately following the Month during which the Commercial Operations Date occurs. "Commercial Operations Date" shall mean the date on which the Lodi Energy Center can be commercially operated and dispatched. Buyer shall provide Supplier with written notice of the Start Date no later ten (10) Business Days prior to the occurrence of the Start Date.

Buyer: Northern California Power Agency
Supplier: J.P. Morgan Ventures Energy Corporation
Delivery Point(s): The Citygate, unless otherwise agreed by Customer and Supplier

Maximum Daily Quantity: Shall be the maximum daily quantity that can be delivered at the Citygate to Buyer as established by PG&E prior to the Start Date and as revised by PG&E from time to time.

Contract Price: See Appendix C attached hereto

C. **Nominations**- Section 4.1 of the Contract is hereby deleted and replaced with the following:

“4.1 Nominations

(a) The daily volumes nominated by Buyer to Seller, prior to 7:00 a.m., on a standard industry recognized business day hereunder are called “Nominated Daily Volumes” or “NDV”. The sum of the Net NDV and Net Third Party Supply (as those terms are defined in Section 4.4(c) below) shall not exceed the Buyer’s reasonably expected usage in any Day; and the remaining NDV (i.e. expected usage, less Third Party Supply and any previously purchased NDV from Supplier) shall be purchased from or sold to the Seller at the PG&E Citygate Daily Index Price set forth in Section 1.1 of Appendix C, unless otherwise agreed to. Third Party Supplies nominated before the Timely Cycle Deadline for Standard Packages shall not incur a management fee. Third Party Supplies nominated after the Timely Cycle Deadline or for non-Standard Packages will incur a management fee of \$.01/MMBtu to be paid by Buyer to Seller.

For the purposes of this Section 4.1, the below terms shall have the following meanings:

“Gas Day” and “Gas-delivery Day” mean the Day on which Gas is delivered to Buyer.

“Standard Package(s)” means contiguous Gas Day(s) that are traded as one package and purchased together and not individually, such as weekends and holidays (Saturday, Sunday, and Monday would be one package when applicable).

“Third Party Supply” or “Third Party Supplies” shall mean the sum of the quantity of Gas of each third party supplier identified by Buyer to be delivered by each third party supplier.

“Timely Cycle Deadline” shall mean the first deadline to nominate Gas at the Delivery Point on the applicable Delivery Pipelines or PG&E.

(b) Buyer hereby authorizes Seller, and Seller hereby agrees, to act as Buyer’s agent for scheduling and nominating receipts and deliveries of NDV, which may include pre-purchased Gas from Supplier, and Third Party Supply, on the Delivering Pipelines for Buyer’s account, including all deliveries of NDV to Buyer’s Plants, listed in Appendix A. For each Day of each Month, Seller, as Buyer’s agent, and Buyer shall, in accordance with PG&E’s Tariffs, undertake the following steps:

(i) Buyer shall provide a notice to Seller of its NDV by means of notification agreed to by the Parties (referred to as "Nomination Notification") not later than one and a half (1.5) hours before the notice time for the first nomination cycle by which Seller must provide such notices and information to the Delivering Pipelines in accordance with the Delivering Pipelines' Tariffs. In the event Buyer fails to provide a Nomination Notification to Seller, the NDV for that Day shall be equal to zero. The "Nomination Deadlines" for PG&E and the Delivering Pipelines shall refer to those deadlines set forth on Appendix B.

(ii) Seller shall nominate a quantity of Gas to PG&E on behalf of Buyer and provide PG&E with such other notices and information as PG&E may require, so that all applicable NDV will be accepted and delivered by PG&E.

(iii) For revisions to the NDV after the Timely Cycle Deadline, Buyer shall notify Seller of the revision to the NDV and of the effective date of that revision ("Revision Notification"), not later than two (2) hours before the Pipelines' Nomination Deadlines for revisions.

(a) If either the Day before the Gas-delivery Day or during Gas-delivery Day, Buyer requests a price quote from Seller for either selling additional Gas quantities to Buyer or purchasing Gas quantities from Buyer, whichever is applicable, for that Gas-delivery Day and Seller quotes a price for such quantities and Buyer accepts the quoted price, the quantities subject to the quote shall be priced according to the price quoted by Seller and accepted by Buyer; and such Gas shall be included in the NDV.

(b) If either the Day before the Gas-delivery Day or during Gas-delivery Day, Buyer requests a price quote from Seller for either selling additional Gas quantities to Buyer or purchasing Gas quantities from Buyer, whichever is applicable, for that Gas-delivery Day, and Seller does not respond to Buyer's inquiry, provided however such inquiry is made during normal business hours for such gas trading of 5:30 a.m. to 2:00 p.m. Pacific Prevailing Time such requested quantity shall be priced at the "Flow Day Price" set forth in Section 2.3 of Appendix C and shall be included in the NDV.

(iv) If Buyer gives Seller a Buyer's Nomination Notification or Revision Notification which is not timely, Seller shall use reasonable efforts to arrange to deliver Gas in accordance with Buyer's late notice. If Seller arranges for the delivery of such late notice Gas, Buyer's NDV shall be modified to include the late notice Gas. If Seller is unable to arrange for the delivery of such Gas, the last effective Buyer's Nomination Notification or Revision Notification (and the NDV contained therein) shall remain in effect.

(v) If Buyer buys Gas from a third party after the Timely Cycle Deadline, then Seller

shall be notified of the same, no later than two (2) hours prior to that last nomination cycle for the relevant time period during normal business hours (6:30 a.m. to 2:00 p.m. Pacific Prevailing Time). If PG&E has imposed path limits (this can occur in extreme cases when PG&E limits late and intra-day nominations because an OFO has not solved their system pressure problems), Seller may not be able to accommodate Buyer's non-Timely Cycle Third Party nomination. Buyer shall indemnify Seller for any actual losses that Seller may incur resulting from Seller not being able to schedule Third Party supplies due to PG&E imposed path limits.

(c) Seller, as agent for Buyer, shall comply with the Tariff and all other Tariff requirements of the respective Delivering Pipelines, including the procedures for scheduling and nominating receipts and deliveries of Gas for Buyer's Plants. For each Day of each Month, Seller shall, in accordance with the respective Delivering Pipeline's tariff provisions:

(i) provide the Delivering Pipelines with such notices and information as they may require so that the NDV will be delivered into Seller's PG&E Citygate Pool for Buyer's account during that Day (each such notice given by Seller to the Delivering Pipelines, a "Seller's Nomination").

(ii) notify Buyer of the nomination and scheduling deadlines or any changes thereto of the Pipelines.

(d) Each Party will notify the other Party immediately upon becoming aware of any problem in making nominations to any of the Delivering Pipelines for Buyer's account or the scheduling, delivery, or receipt of the NDV at the PG&E Citygate or at Buyer's Plants, and will reasonably cooperate with the other to resolve that problem so that the NDV may be delivered during each Day without interruption, reduction, or delay. Each Party shall promptly notify the other Party if the quantity of Gas that is confirmed to it by any of the Delivering Pipelines does not equal the NDV.

(e) Buyer has the option to appoint an energy manager to separately nominate to Seller its Gas requirements under this Contract on its behalf for each separate plant constituting Buyer's Plants. In that regard, Buyer may also designate a third party to be its energy manager for any of the plants constituting the Buyer's Plants. In any case, the entity making the nomination for any of the plants constituting Buyer's Plants shall comply with the nomination notice requirements and other related terms and conditions in this Contract."

D. Section 4.3 of the Contract is hereby deleted and replaced with the following:

"4.3 Balancing

(a) Seller, as agent for Buyer, shall comply with all Tariff requirements of the respective Delivering Pipelines, including the Tariff, including the procedures for balancing receipts and deliveries of Gas for Buyer's Plants. Buyer will receive OFO notices directly from PG&E.

(b) Buyer hereby authorizes Seller, and Seller hereby agrees to act as Buyer's agent, to balance Gas receipts and deliveries under this Contract into the transmission and distribution systems of PG&E for Buyer's account including deliveries from PG&E to Buyer's Plants and to perform all imbalance trading that may be required of Buyer by PG&E in compliance with PG&E's Tariff. In order to maximize Gas management efficiency, Buyer's Gas supply will be pooled with gas of Seller's other customers, provided that Buyer shall not incur any penalties or additional changes to the extent attributable to Seller's management of its PG&E Citygate Pool. Specifically, Seller and Buyer agree that, to the extent Seller acts as agent hereunder:

(i) Buyer shall assign all of Buyer's imbalances to Seller's authorized balancing account pursuant to the balancing provisions as set forth in PG&E's Tariff. Buyer and Seller agree that Buyer shall assign Buyer's imbalance account, which shall have a zero balance, to Seller at the beginning of the Delivery Period. Similarly, Seller shall release back to Buyer at the end of the Delivery Period, Buyer's imbalance account with a zero balance. During the Delivery Period, Buyer shall not elect any self-balancing provision that PG&E may at any time propose. Additionally, Buyer shall limit any Gas purchased by Buyer or third party supplies managed herein to quantities that, at the time of nomination, represent Buyer's reasonably expected daily use for the Lodi Energy Center for up to the Facility's MDQ in Appendix A; and

(ii) Buyer is responsible for any OFO/EFO penalties it causes; however, after the Commercial Operation Date, Seller shall indemnify Buyer for any OFO penalties imposed by PG&E caused by Buyer for up to \$10,000 per occurrence and not to exceed \$50,000 per calendar year. This provision does not indemnify Buyer from and shall not be applicable to OFO penalties caused by nonperformance of Buyer's third party supplier(s). Seller shall indemnify Buyer against all imbalance penalties and penalties resulting from operational flow orders (OFO) and/or emergency flow orders (EFO) that are imposed on Buyer by PG&E to the extent such penalties are caused by the Seller, provided, however, that:

(A) If Buyer fails to respond to such OFO/EFO notification request within one and a half (1.5) hours prior to the Timely Cycle Deadline, and Buyer's failure causes PG&E to impose penalties for Buyer's failure to comply with such orders, then such penalties shall be borne by Buyer, unless penalties are within the above limited indemnity, on a pro rata basis with other participants in the Seller's pool whose imbalances have resulted in the penalty assessment and, subject to Buyer's verification of the assessment from PG&E's penalty statement to Seller, and any other reasonable supporting materials Seller relies on to make the assessment on Buyer, provided that, any such supporting materials shall be provided to Buyer on a "no-name basis" and in such a manner that the counterparty or its business practices cannot be identified.

(B) The intent of the Buyer's response to the OFO/EFO notification shall be to notify Seller of its estimated demand for the OFO/EFO Day. If Buyer fails to notify Seller of a change to the NDV, then Seller shall deliver to Buyer the NDV provided under Section 4.1 for the OFO/EFO Day. If Seller is required to purchase or sell additional quantities of Gas to prevent PG&E's assessment of an imbalance penalty attributable to Buyer, then Seller shall charge or credit Buyer for those volumes at the "OFO/EFO Day Transaction Price" set forth in Section 2.2 of Appendix C hereto. Any gain or loss resulting from such a transaction shall be borne by Buyer, provided that the aggregate loss shall not exceed the penalties that would have been applicable to Buyer under Section 4.3(b)(ii)(A) if Seller had taken no action."

E. The Contract shall be amended by the addition of the following as Section 4.4:

"4.4 **Imbalance Volumes**

(a) For operational reasons only as required to meet Buyer's reasonably expected load requirements for the Lodi Energy Center, the Parties acknowledge that Buyer may choose not to take delivery of its Baseload Quantity on any given Day, or may choose to take more than its Baseload Quantity on any given Day based only on Buyer's reasonably revised load expectations for the Lodi Energy Center. The "Imbalance Volume" is defined as the difference between the Baseload Quantity and the Actual Meter Usage.

(b) Seller will (i) buy the Imbalance Volume from Customer at the "Daily Imbalance Price" (as defined in Section 2.1 of Appendix C hereto) on any Day wherein the Actual Meter Usage is less than the Baseload Quantity; or (ii) sell the Imbalance Volume to Customer at the Daily Imbalance Price on any Day wherein the Actual Meter Usage is greater than the Baseload Quantity.

(c) For the purposes of Imbalance Volumes and Operational Flow Orders, the below terms shall have these meanings:

(1) "Baseload Quantity" shall mean the sum of (i) the Net NDV, and (ii) the Net Third Party Supply.

(2) The "Actual Meter Usage" shall mean the quantity of Gas measured by PG&E's meters at the Lodi Energy Center adjusted for distribution losses pursuant to the PG&E Tariff. (Currently the Noncore local transmission fuel charge is zero and the Noncore distribution fuel charge is 0.2%.)

(3) The "Daily Imbalance Price" shall mean the Price set forth in Section 2.1 of Appendix C.

(4) The "Net NDV" shall mean the sum of each NDV transaction, wherein purchases by Buyer from Seller, including pre-purchased Gas from the Seller, would be positive and sales from Buyer to Seller would be negative.

(5) The "Net Third Party Supply" shall mean the nominated Third Party Supply and/or deliveries from Buyer's storage account less the quantity of excess Gas, sold to third

parties and/or delivered into Buyer's storage account, scheduled by Seller, as requested by Buyer, delivered at the Delivery Point.

(d) Imbalance Volumes, including volumes governed by Section 4.1(b)(iii)(a) and 4.1(b)(iii)(b) transacted on a daily basis shall be accounted for on the monthly invoice statement, separately identified by date of cashout and applicable price pursuant to Section 4.4."

F. Monthly Baseload Gas

Buyer may, at its sole option, notify Seller prior to 11:00 a.m. prevailing Pacific Time on the 6th to last Business Day prior to the applicable Month of the Delivery Period of the monthly quantity of Gas, if any, expressed in MMBtus as a uniform single daily quantity for each day during such Month by Delivery Point, that it will purchase from Seller (which quantity of Gas will be deemed the "Monthly Quantity"). All deliveries of the Monthly Quantity will be made in equal daily quantities across the particular Month and shall be priced at the Monthly Baseload Index set forth in Section 2.4 of Appendix C of this Master Transaction Confirmation.

G. Third Party Nominations

When the Third Party Supply quantities ("Third Party Quantity") are nominated, Buyer shall also identify each third party supplier and the associated quantity of Gas to be delivered by each third party supplier. The Third Party Quantity shall be delivered to Seller at the Delivery Point; provided, however, Seller shall not take title to all or any portion of the Third Party Quantity, all of which shall be only managed by Seller on behalf of Buyer in accordance with all applicable rules of PG&E.

H. Third Party Make-up Gas

On any Day that a third party supplier of the Third Party Quantity fails to deliver all or any portion of the Third Party Quantity to the Delivery Point (the "Third Party Imbalance"), Seller shall sell to Buyer a quantity of Gas equal to the Third Party Imbalance at a price equal to the Third Party Make-up Quantity Price set forth in Section 2.5 of Appendix C. Seller shall provide to Buyer the specific costs and imbalance amounts for each third party fuel supply schedule affected.

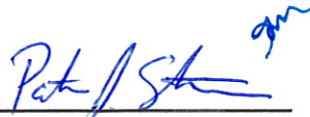
I. Contract Price for the Market Adjustment

Starting on the first Day of the Month of the Month immediately following the Commercial Operation Date, Seller will credit Buyer based on the actual burn quantity in a given Month during the Delivery Period an amount equal to \$0.01/MMBtu multiplied by the quantity of Gas actually burned during the given Month.

J. Meter Errors

If PG&E assesses or allocates any revised delivery quantities attributable to pipeline meter errors or other measurement revisions to Buyer, and such revised quantities are placed into Seller's imbalance account, Buyer will be responsible for all price risks incurred by Seller in resolving such imbalances including any imbalance trading costs reasonably incurred by Seller to avoid penalties that may have been imposed on Seller by PG&E caused by such imbalances (to the extent such costs do not exceed such penalties that may have been imposed).

J.P. Morgan Ventures Energy
Corporation

Approved by: 

Name: **Patrick Strange**

Title: Managing Director

Date: 7-26-10

By: _____

Name:

Title:

Date:

Northern California Power Agency

Approved by: 

Name: James H. Pope

Title: General Manager

Date: 7/20/10

Approved as to Form:

By: 

Name: Michael Dean

Title: General Counsel

Date: 7-19-2010

APPENDIX A

INFORMATION ON FACILITIES, CAPACITY, AND MDQ

PG&E Citygate Maximum Daily Quantity

PG&E Citygate Maximum Daily Quantity ("PG&E Citygate MDQ") 50,000 MMBtu/day
TBD

Buyer's Facility Maximum Daily Quantity ("Facility MDQ")

Lodi Energy Center 12751 N. Thornton Rd, Lodi, CA 95242

48,840 MMBtu/day plus any PG&E imposed fuel requirements

Additional facilities may be added to this Contract by mutual agreement.

APPENDIX B

NOMINATION DEADLINES OF PG&E

Nominations

Day Prior to Gas Flow Day

9:30 a.m. Timely Nomination Deadline

4:00 p.m. Evening Nomination Deadline

Gas Flow Day

8:00 a.m. Intraday 1 Nomination Deadline

3:00 p.m. Intraday 2 Nomination Deadline

Purchasing/Selling

Appendix C Section 1.1	Anytime prior to 7:00 a.m. for next day delivery period as defined by the Gas Daily publication.
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All times refer to Pacific Prevailing Time.

APPENDIX C - PRICES

1. Fundamental Price Definitions

1.1. PG&E Citygate Daily Index Price

The PG&E Citygate Daily Index Price shall refer to:

The volumetric weighted average of the PG&E Citygate prices in US\$/MMBtu as published by Platts Gas Daily and listed under “PG&E Citygate Midpoint”.

The deadline for nominating any such volumes priced at Gas Daily PG&E Citygate Midpoint shall be made prior to 7:00 a.m. PPT prior to the delivery day/days (weekends and Holidays) as defined by Gas Daily and all such requests shall be made for Standard Packages of Gas. For example, if Buyer is seeking a Gas daily price for specified volumes for Wednesday then such price nomination shall be made on Tuesday by 7:00 a.m. PPT. Any non-Standard Packages of Gas (e.g. Saturday only) and Gas nominated after 7 AM PPT would be priced by mutual agreement.

1.2. PG&E Citygate Bidweek Index Price

The Bidweek average of prices quoted in US\$/MMBtu for PG&E Citygate as published in Intelligence Press in NGL’s Bidweek Survey for the Month.

2. Contract Price Definitions

2.1. Daily Imbalance Price

The Daily Imbalance Price shall be equal to the PG&E Citygate Daily Index Price set forth in Section 1.1 of this Appendix applicable on the flow date following the first available transaction date, not to include Days where applicable operation flow orders were issued (“non-OFO”), after the day on which the Gas transportation imbalance occurred.

For use in this Section, “transaction date” shall mean the Day when natural gas is traded on an industry recognized market for the purposes of buying and selling natural gas for the following Day(s) (commonly referred to as “day ahead”).

2.2. OFO/EFO Day Transaction Price

2.2.1. If requested by Buyer not later than two (2) hours prior to the Timely Cycle:

(a) When Seller is required to purchase additional volumes, the OFO/EFO Day Transaction Price shall be the PG&E Citygate Daily Index Price set forth in Section 1.1 of this Appendix flat; and

(b) When Seller is required to sell additional volumes, the OFO/EFO Day Transaction Price shall be the PG&E Citygate Daily Index Price set forth in Section 1.1 of this Appendix flat.

2.2.2. If requested by Buyer later than two (2) hours prior to the Timely Cycle, the OFO/EFO Day Transaction Price shall be subject to Seller and Buyer's mutual agreement.

2.3. Flow Day Price

If Seller fails to respond to a post Timely Cycle NDV request upon receipt of timely notice from Buyer, then for transactions under Section 4.1(b)(iii)(b) of the Contract (Section C of the Master Transaction Confirmation), the price shall be the "Flow Day Price", which shall be equal to the PG&E Citygate Daily Index Price set forth in Section 1.1 of this Appendix C.

2.4. Monthly Baseload Index

Buyer shall pay to Seller for the Monthly Quantity of Gas an amount equal to: i) if there is not a specific mutually agreed price for that transaction, the bidweek average price of "PG&E Citygate" reported in the "Natural Gas Intelligence, Weekly Gas Price Index" NGI'S Bidweek Survey in the California section of the Spot Gas prices table for each calendar Month during the Delivery Period, flat; or ii) some other mutually agreed to price between the parties, established prior to 1400 hours prevailing Pacific Time on the 6th to last Business Day prior to the applicable Month of the Delivery Period for which the Monthly Quantity is identified.

2.5. Third Party Make-up Quantity Price

At Seller's option, either at (i) the applicable Gas Daily Midpoint Price (PG&E Citygate or the mutually agreed applicable upstream point) published two (2) Business Days after the Day upon which the Third Party Imbalance occurred, or (ii) Seller's actual cost to cover such Third Party Imbalance including any fees or penalties associated therewith. The price selected by Seller shall be meant to compensate Seller for its losses and is not intended to be punitive in nature.

1429153.6

Agreement Schedule 2.00

Fuel Supply Procurement, Delivery, and Management

NCPA is responsible for fuel supply procurement, delivery and management for the Project and, subject to PPC direction, may develop, negotiate and administer Project fuel supply arrangements (the “Fuel Management Contract” or “FMC”). The FMC is to govern Project fuel supply activities including but not limited to daily fuel scheduling (nominations), fuel purchasing/sales, fuel balancing and fuel pricing. In addition, the FMC is to provide for the choice by Participants and/or NCPA of arranging for the delivery of 3rd Party Supply (fuel which is not purchased under the FMC) to the Project. To provide alternate and/or additional fuel supply sources, NCPA may execute third party fuel supply agreements in the future as approved by the PPC. Any added or additional charges resulting from any Participant supplied fuel will be fully charged to such Participant(s).

From time to time and as directed by the PPC, NCPA may seek and analyze proposals from potential fuel managers for the Project, and subsequently recommend a fuel manager/supplier (the “Project Gas Supplier and Manager”) to the PPC for its consideration.

Description of Current Fuel Management Contract

Mercuria Energy Gas Trading LLC (“Mercuria”) is the current PPC approved fuel manager and is also a fuel supplier. The following components are included in the **Mercuria** fuel supply and management **contracts**:

- North American Energy Standards Board (NAESB) Base Contract
- Special Provisions to the NAESB Base Contract
- Master Transaction Confirmation
- **Model Credit Support Addendum to the NAESB Base Contract**
- **Amendment to the Model Credit Support Addendum to the NAESB Base Contract**

The following summarizes the fuel settlements procedure for the **Mercuria** fuel supply and management contracts and supplements the scheduling protocols in PMOA Schedule 1.00 “Scheduling and Dispatch Operations and Economic Criteria”. (Note: if there were to be a conflict between procedures established in PMOA Schedules 1.00 and 2.00, NCPA staff would **proceed** with affected Project activities in a manner deemed prudent, reasonable and equitable by Project staff and bring such matter(s) to the PPC for discussion and clarification at the next subsequent PPC meeting).

Definitions:

- “Seller” is the fuel supplier and manager pursuant to the FMC (currently **Mercuria**).

Agreement Schedule 2.00

Fuel Supply Procurement, Delivery, and Management

NCPA is responsible for fuel supply procurement, delivery and management for the Project and, subject to PPC direction, may develop, negotiate and administer Project fuel supply arrangements (the "Fuel Management Contract" or "FMC"). The FMC is to govern Project fuel supply activities including but not limited to daily fuel scheduling (nominations), fuel purchasing/sales, fuel balancing and fuel pricing. In addition, the FMC is to provide for the choice by Participants and/or NCPA of arranging for the delivery of 3rd Party Supply (fuel which is not purchased under the FMC) to the Project. To provide alternate and/or additional fuel supply sources, NCPA may execute third party fuel supply agreements in the future as approved by the PPC. Any added or additional charges resulting from any Participant supplied fuel will be fully charged to such Participant(s).

From time to time and as directed by the PPC, NCPA may seek and analyze proposals from potential fuel managers for the Project, and subsequently recommend a fuel manager/supplier (the "Project Gas Supplier and Manager") to the PPC for its consideration.

Description of Current Fuel Management Contract

J.P. Morgan Ventures Energy Corporation (JPMVEC) is the current PPC approved fuel manager and is also a fuel supplier. The following components are included in the JPMVEC fuel supply and management contract:

- North American Energy Standards Board (NAESB) Base Contract
- Special Provisions to the NAESB Base Contract
- Master Transaction Confirmation
- The FMC guaranty is provided by J.P. Morgan & Chase Bank.

The following summarizes the fuel settlements procedure for the JPMVEC fuel supply and management contract and supplements the scheduling protocols in PMOA Schedule 1.00 "Scheduling and Dispatch Operations and Economic Criteria". (Note: if there were to be a conflict between procedures established in PMOA Schedules 1.00 and 2.00, NCPA staff would proceed with affected Project activities in a manner deemed prudent, reasonable and equitable by Project staff and bring such matter(s) to the PPC for discussion and clarification at the next subsequent PPC meeting).

Definitions:

- "3rd Party Imbalance" means all or any portion of 3rd Party Supply (less any quantity sold by NCPA to a party other than Seller) not delivered to Point of Delivery.
- "3rd Party Supply" is any fuel supply that is purchased by NCPA and/or Participant(s) which is not purchased under the FMC.
- "Actual Metered Usage" indicates the total measured Project fuel consumption over a particular period of time at the same meter(s) used to establish LEC fuel consumption for billing under the FMC.
- "Buyer" is NCPA acting on behalf of Project Participants pursuant to the PMOA.
- "Flow Day" is the calendar day that scheduled fuel supply is to be used or burned.
- "Fuel Management Contract" (FMC) governs forward fuel transactions (fuel purchasing/sales) and daily fuel related activities, e.g. nominations (scheduling) of fuel supply, fuel balancing, fuel pricing, and arrangement for delivery of 3rd Party Supply(s).
- "OFO/EFO" means Operational Flow Order or Emergency Flow Order as defined in the PG&E Gas Tariff.
- "PG&E Citygate Daily Index Price" means the volumetric weighted average of the PG&E Citygate prices (US\$/MMBtu) as published in Platts Gas Daily and listed under "PG&E Citygate Midpoint".
- "PG&E Citygate Pool" shall, unless the context indicates otherwise, mean Seller's gas account with PG&E where PG&E tracks on a daily and monthly basis, the total quantity of gas nominated for delivery to Seller at PG&E Citygate (all additions to Seller's PG&E Citygate Pool) during a day or month and the total quantity of gas that Seller disposes of via delivery nominations submitted to PG&E (all deductions from Seller's PG&E Citygate Pool) during such day or month -- all as adjusted by PG&E for any variances between such nominations and applicable quantities of gas actually received or delivered during such day or month. At the end of any calendar day or month, the gas balance in Seller's PG&E Citygate Pool may be positive, zero, or negative.
- "PG&E Nomination Revision Deadlines" for each Flow Day are 9:30 AM and 4:00 PM on the day ahead of the Flow Day and 8:00 AM and 3:00 PM on the Flow Day.
- "Prepurchased and Presale Gas" indicates any NCPA forward gas transactions with the Seller made under the FMC for one or more Participants pursuant to PSA Section 8.3 and/or under separate agreement(s) pursuant to PMOA Section 5.1.2. e.
- "Seller" is the fuel supplier and manager pursuant to the FMC (currently JPMVEC).
- "Standard Package(s)" means contiguous Flow Days that are traded as one package and must be purchased together and not individually, such

as weekends (Saturday and Sunday would be one package) and holiday weekends (e.g. Saturday, Sunday, and Monday would be one package).

- "Timely Cycle" is prior to 6:30 AM of the business day immediately prior to the applicable Flow Day(s).

1) The day ahead Nominated Daily Volume (NDV_{DA}) is the expected LEC fuel requirement (MMBtu/day) less Net 3rd Party Supply less Preurchased Gas from Seller plus Presale Gas to Seller for the Flow Day. NCPA shall purchase/sell the NDV_{DA} from/to Seller at the PG&E Citygate Daily Index Price or at another price as otherwise mutually agreed. The nomination notification for all day ahead schedules shall be provided by NCPA to Seller prior to 7:00 AM on the day ahead of the Flow Day. The expected LEC fuel requirement for the Flow Day shall be based on forecasted and historical results of power market activities and prices, and LEC Project operating information maintained by NCPA.

- a) All day ahead expected LEC fuel requirements and related gas transaction(s) scheduled by Seller shall be valued at the PG&E Citygate Daily Index Price unless otherwise mutually agreed.
- b) The expected LEC fuel requirement shall be allocated to Participants by respective GES, and adjusted for each Participant's share of Net 3rd Party Supply, if any, and applicable share of any Preurchased Gas and/or Presale Gas. Participants providing 3rd Party Supply shall notify and schedule such quantities with NCPA by 6:30 AM on the day ahead of the applicable Flow Day(s) and shall arrange for delivery to the PG&E Citygate.
- c) "Net NDV" = Net Nominated Daily Volume = NDV_{DA} + Preurchased Gas – Presale Gas
 - i) Includes only transactions between Buyer and Seller scheduled under the FMC.
- d) "Net 3rd Party Supply" = 3rd Party Supply plus deliveries from Buyer's LEC storage account less sales of 3rd Party Supply and less deliveries to Buyer's LEC storage account
 - i) Includes only transactions scheduled by Seller under the FMC.
- e) The following costs shall be allocated to the responsible Participant(s):
 - i) Seller shall be indemnified for costs of 3rd Party Imbalances and shall invoice Buyer either (a) the applicable PG&E Citygate Gas Daily Index price or (b) the actual costs attributable to such imbalances pursuant to the FMC.
 - ii) Seller shall invoice Buyer the specific imbalance costs and amounts, as determined under 1(e)(i) above, for each affected 3rd Party Supply schedule.

- iii) Any 3rd Party Supply(s) nominated after the Timely Cycle and any non-Standard Packages will incur a management fee of \$0.01/MMBtu to be paid to Seller by Buyer and allocated to the responsible Participant(s), as applicable.
- 2) "Revision Notifications" are revisions to the Net NDV and shall be made at least 2 hours prior to the remaining applicable PG&E Nomination Revision Deadlines for the Flow Day.
- a) Seller shall quote a price for each revision amount requested by NCPA. These revisions may be purchases/sales which may be needed to mitigate anticipated impacts of daily Fuel Imbalance Volumes and/or OFO/EFO penalties caused by LEC Project operation changes. Such price quote(s) will be based on Seller's market activities at the time of the Revision Notification from NCPA. The final Net NDV is the Net NDV adjusted for all revision request(s) at price quote(s) accepted by NCPA. If no revision price quotes are accepted by NCPA, then the final Net NDV is the Net NDV as established at 7:00 AM on the day ahead.
 - b) If Seller fails to respond to a revision request to the Net NDV upon timely notice from NCPA, then the price for the revision amount will be the PG&E Citygate Daily Index Price for the Flow Day.
 - c) Revision Notification impacts shall be allocated to Participants by respective GES.
- 3) The daily "Fuel Imbalance Volume" is the difference between the volumes received into Seller's PG&E Citygate Pool for expected NCPA LEC usage and the volumes delivered out of Seller's PG&E Citygate Pool for actual NCPA LEC usage.
- a) Fuel Imbalance Volume = Net NDV + Net 3rd Party Supply – Actual Metered Usage(s).
 - b) The price for Fuel Imbalance Volume is the PG&E Citygate Daily Index Price applicable for the Flow Day following the first available transaction day after the NCPA LEC Fuel Imbalance Volume is determined (i.e. 2-day lag price).
 - c) Seller shall receive the LEC Actual Metered Usage each day.
 - d) Fuel Imbalance Volume charges shall be allocated to Participants by respective GES.
- 4) OFO/EFO penalties shall be determined by Seller as follows:
- a) If Seller's PG&E Citygate Pool does not incur a penalty, then no penalty will be assessed to Buyer for any daily Fuel Imbalance Volume.
 - b) If Seller's PG&E Citygate Pool incurs a penalty, such penalty is to be prorated with other customers in Seller's PG&E Citygate Pool whose daily Fuel Imbalance Volumes contributed to the penalty assessed by PG&E.

- c) Seller will indemnify NCPA for any penalty assessment up to \$10,000 per occurrence, but not to exceed a cumulative limit of \$50,000 per calendar year.
 - d) OFO/EFO penalty costs incurred by the LEC Project shall be allocated to Participants by respective GES.
- 5) "Market Adjustment" is a monthly payment from Seller to NCPA and shall be determined as follows: $\$0.01/\text{MMBtu} \times \text{the month's Actual Metered Usage}$. This payment from Seller shall be allocated monthly to Participants by respective GES.



Lodi Energy Center Project Participant Committee Staff Report

AGENDA ITEM NO.: 12

Date: November 9, 2015
To: Lodi Energy Center Project Participant Committee
Subject: Roth Energy Company Consulting Services Agreement for Natural Gas Acquisition and Asset Advisory Services

Proposal

Staff seeks approval of a one year Consulting Services Agreement with Roth Energy Company for natural gas acquisition and asset advisory services for a not to exceed amount of \$90,000 to be allocated among the following NCPA projects: Combustion Turbine 1 (CT1) 10%, Combustion Turbine 2 (STIG) 45%, and the Lodi Energy Center (LEC) 45%.

Background

At the October 7, 2015 Facilities Committee NCPA staff was directed to issue a Request for Proposal to acquire the services of a natural gas pipeline consultant to assist in its development of strategies and recommendations to optimize the value and utilization of natural gas related assets and gas related services managed and/or provided on behalf of NCPA members and NCPA project participants. At the October 12, 2015 meeting of this committee some participants expressed interest in participating in the RFP.

Current service and project agreements, along with the NCPA participants in each agreement, are summarized in Table 1. The interrelationships among the agreements and facilities are shown in Diagram 1. Table 2 displays the proposed allocation of costs between the NCPA projects and participants/members.

Selection Process

The RFP was issued on October 16, 2015 to five consultants that staff believed could perform the work. Two consultants returned proposals: Anahau Energy and Roth Energy.

Summary of Anahau Energy's Proposal:

- Costs
 - \$350/per hour
 - Estimated cost of \$7,500 to \$15,000 per week
 - 12 week project at a total cost of between \$90,000 to \$180,000
- Major Deliverables
 - Identify contractual risks/rewards with PG&E, NOVA, Foothills, GTN, CGT and Noble

- Identify contractual risk/rewards with EDFT and Mercuria
- Identify contractual risk/rewards under the LEC Project Management and Operations Agreement

Summary Roth Energy Company's Proposal

- Costs
 - \$150/per hour
 - Total cost not to exceed \$90,000
- Major Deliverables
 - Identify reasonable alternatives to annual renewals of the NOVA and Foothills pipelines
 - Review NCPA's fuel management agreements and purchase programs and provide recommendations for improvements to individual agreements and/or recommendations for integration that could lead to increase value.
 - Provide an economic assessment of the strategy of using municipal financing to purchase natural gas on a long-term basis

Fiscal Impact

Total cost of LEC portion of the contract is \$40,500. This project was not included in the current fiscal year budget. The account which will be used to fund this contract has not yet been identified. Cost allocation will be based on generation entitlement shares.

Environmental Analysis

This activity would not result in a direct or reasonably foreseeable indirect change in the physical environment and is therefore not a "project" for purposes of Section 21065 the California Environmental Quality Act. No environmental review is necessary.

Recommendation

NCPA staff recommends that the PPC pass a motion approving a one year Consulting Services Agreement with Roth Energy Company for gas acquisition and asset advisory services for a not to exceed amount of \$90,000, of which 45% is allocated to the LEC project at a cost not to exceed \$40,500.

Prepared by:

KENNETH C. GOEKE
Manager, Portfolio and Pool Administration
Power Management

Attachments: (6)

- Table 1- Interrlationships Among NCPA Agreements and Facilities
- Diagram 1
- Table 2 – Proposed Allocation of Contract Costs
- Request for Proposal
- Anahua Energy Proposal
- Roth Energy Proposal

TABLE 1
Interrelationships Among NCPA Agreements and Facilities

Participant	LEC Fuel Management Agreements	TransCanada (Nova), BC System (Foothills), GTN and PG&E CGT Pipeline Agreements	Combustion Turbine Project #2 (STIG)	Combustion Turbine Project #1	Asset Management Agreement (AMA) for Pipeline Transportation Capacity and Gas Purchase	Natural Gas Program Agreement (GPP)
Alameda		X	X	X	X	
BART	X					
Biggs	X			X	X	X
Gridley	X			X	X	X
Healdsburg	X			X	X	X
Lodi	X	X	X	X	X	X
Lompoc	X	X	X	X	X	X
Palo Alto						
Plumas Sierra	X			X	X	
Port Oakland						
Roseville		X	X		X	
Santa Clara	X			X	X	
Ukiah	X			X	X	X
Azusa	X					
CDWR	X					
MID	X					
PWRPA	X					

Diagram 1

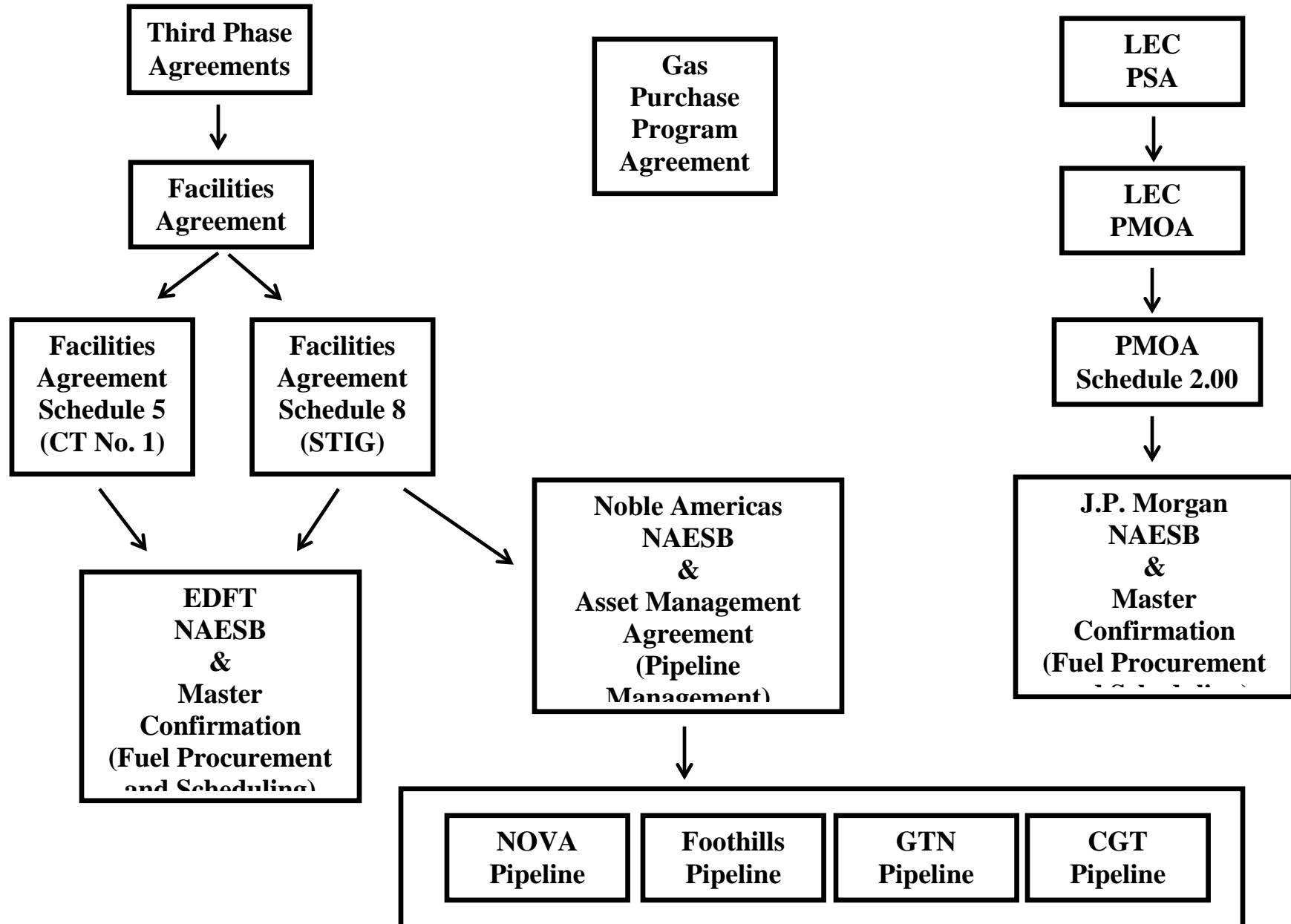


Table 2
Proposed Allocation of Contract Costs

Combustion Turbine 1			Lodi Energy Center		
Member	Ownership	RFP Costs	Member	Ownership	RFP Costs
Alameda	21.8%	\$ 1,964	Azusa	2.8%	\$ 1,128
Biggs	0.2%	\$ 18	Bart	6.6%	\$ 2,673
Gridley	0.4%	\$ 32	Biggs	0.3%	\$ 109
Healdsburg	5.8%	\$ 525	CDWR	33.5%	\$ 13,568
Lodi	13.4%	\$ 1,205	Gridley	2.0%	\$ 795
Lompoc	5.8%	\$ 525	Healdsburg	1.6%	\$ 665
Plumas-Sierra	1.8%	\$ 164	Lodi	9.5%	\$ 3,848
SantaClara	41.7%	\$ 3,750	Lompoc	2.0%	\$ 825
Ukiah	9.1%	\$ 818	MID	10.7%	\$ 4,339
		=====	Plumas-Sierra	0.8%	\$ 318
		\$ 9,000	PWRPA	2.7%	\$ 1,081
Lodi STIG			SantaClara	25.8%	\$ 10,429
Member	Ownership	RFP Costs	Ukiah	1.8%	\$ 723
Alameda	19.0%	\$ 7,695			=====
Lodi	39.5%	\$ 15,998			\$ 40,500
Lompoc	5.0%	\$ 2,025			
Roseville	36.5%	\$ 14,783			
		=====			
		\$ 40,500			



Request for Proposal for

Natural Gas Acquisition and Asset Advisory Services

Overview

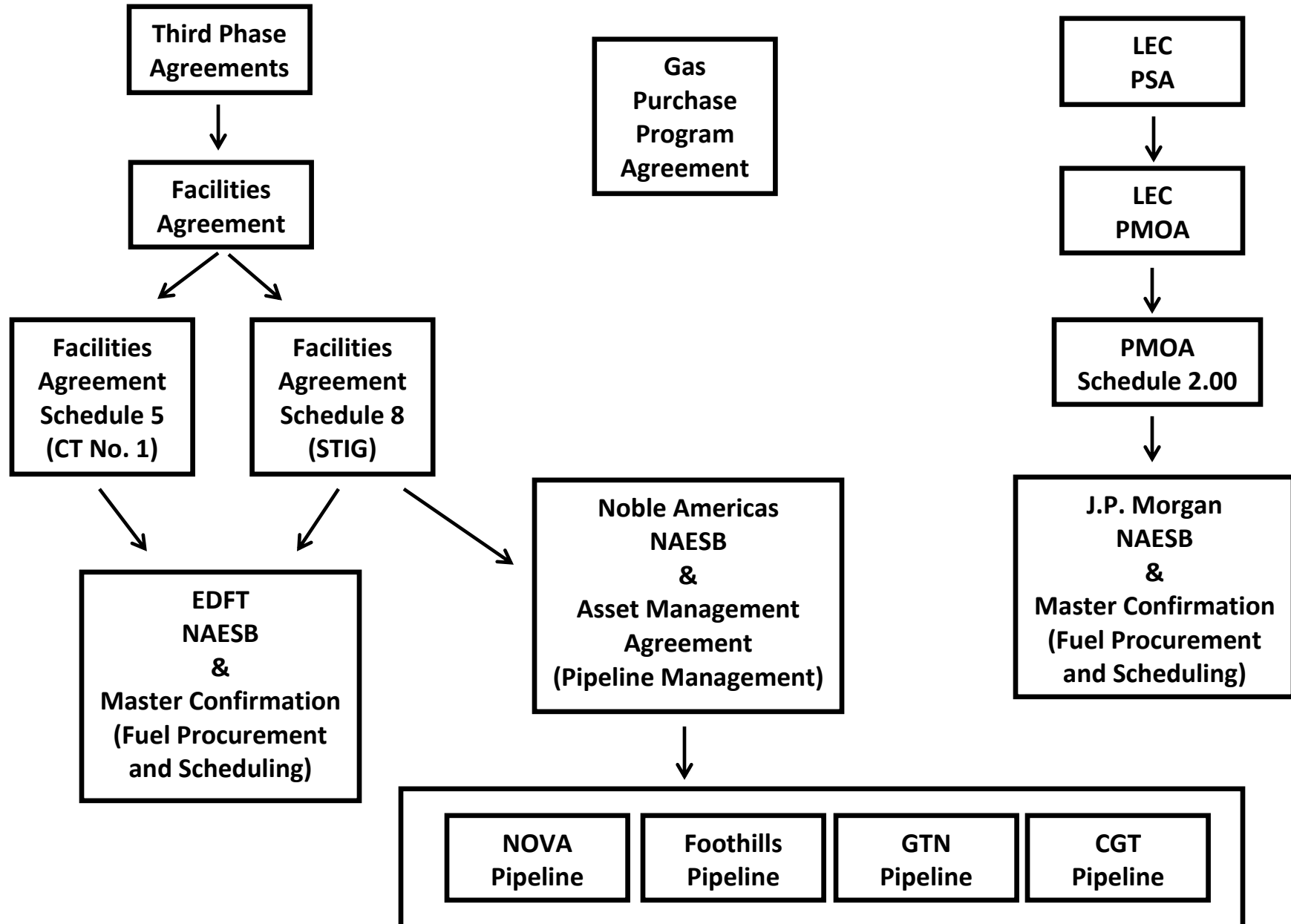
NCPA is seeking assistance on the development of strategies and recommendations to optimize the value and utilization of natural gas related assets and gas related services managed and/or provided on behalf of NCPA members and NCPA project participants.

Current service and project agreements, along with the NCPA participants in each agreement, are summarized in Table 1. The interrelationships between the agreements and facilities are shown in Diagram 1, with a complete listing following.

TABLE 1

PARTICIPANT	LEC Fuel Management Agreements	TransCanada (Nova), BC System (Foothills), GTN and PG&E CGT Pipeline Agreements	Combustion Turbine Project #2 (STIG)	Combustion Turbine Project #1	Asset Management Agreement (AMA) for Pipeline Transportation Capacity and Gas Purchase	Natural Gas Program Agreement (GPP)
Alameda		X	X	X	X	
BART	X					
Biggs	X			X	X	X
Gridley	X			X	X	X
Healdsburg	X			X	X	X
Lodi	X	X	X	X	X	X
Lompoc	X	X	X	X	X	X
Palo Alto						
Plumas Sierra	X			X	X	
Port Oakland						
Roseville		X	X		X	
Santa Clara	X			X	X	
Ukiah	X			X	X	X
Azusa	X					
CDWR	X					
MID	X					
PWRPA	X					

Diagram 1



**Northern California Power Agency
Natural Gas Management and Procurement Agreements**

Lodi Energy Center

Authorizing Agreements

- LEC Power Sales Agreement (PSA)
 - Section 11 (Fuel Procurement)
- LEC Project Management and Operations Agreement (PMOA)
 - Agreement Schedule 2.00 (Fuel Supply Procurement, Delivery, and Management)

Commodity Transaction Agreements

- Base Contract for Sale and Purchase of Natural Gas (J.P. Morgan)
- Master Transaction Confirmation (J.P. Morgan)

Transportation Agreements

- Natural Gas Service Agreement (PG&E)

Combustion Turbine Project No. 1

Authorizing Agreements

- Facilities Schedule 5 (Combustion Turbine Project No. 1 Operating Procedures)

Commodity Transaction Agreements

- Base Contract for Sale and Purchase of Natural Gas (EDF Trading North America)
- Master Transaction Confirmation (EDF Trading North America)

Transportation Agreements

- Natural Gas Service Agreement (PG&E)
 - Alameda Site
- Natural Gas Service Agreement (PG&E)
 - Lodi Site

Combustion Turbine Project No. 2

Authorizing Agreements

- Facilities Schedule 8 (Combustion Turbine Project No. 2 Operating Procedures)

Commodity Transaction Agreements

- Base Contract for Sale and Purchase of Natural Gas (EDF Trading North America)
- Master Transaction Confirmation (EDF Trading North America)

Transportation Agreements

- Natural Gas Service Agreement (PG&E)

Natural Gas Pipeline

Authorizing Agreements

- Pursuant to sequence of agreements described in the History section below, the authorizing agreement is the Facilities Agreement; Specifically Facilities Schedule 5 and 8

Commodity Transaction Agreements

- Base Contract for Sale and Purchase of Natural Gas (Noble Americas Gas & Power Corp.)
- Asset Management Agreement for Pipeline Transportation Capacity (Noble Americas Gas & Power Corp.)

Pipeline Agreements

- NOVA Gas Transmission Ltd. Service Agreement Rate Schedule FT-D (NOVA)
- Foothills Pipe Lines Ltd. Service Agreement Applicable to Firm Transportation Service Under Rate Schedule FS-1 (now Service Agreement FT; NCPA-F1) (Foothills)
- Firm Transportation Service Agreement (GTN)
- Firm Transportation Service Agreement (Applicable to Service Under Rate Schedule XT-1) (PG&E CTG)

History

- Natural Gas Procurement Program Service Schedule (Superseded by Natural Gas Procurement Program Third Phase Agreement)
- Natural Gas Procurement Program Third Phase Agreement
- Amendment No. One to the Natural Gas Procurement Program Third Phase Agreement (Palo Alto assignment to STIG and TID)
- Resolution No. 93-16 (Transfer of Natural Gas Procurement Program to Combustion Turbine Project Number Two)
- Agreement between NCPA and TID Approving Termination of NCPA Resolution No. 93-16 and "Gas Service Schedule A" (permanent assignment of TID rights in the pipeline to TID)
- Termination of Natural Gas Procurement Program Third Phase Agreement

Natural Gas Contract Summaries

LEC Fuel Management Agreements

NCPA manages the procurement of natural gas as fuel for the Lodi Energy Center (“LEC”) using a combination of agreements (collectively referred to as the “LEC Fuel Management Agreements”), which consist of the following:

- NAESB Base Contract
- Special Provisions to the NAESB Base Contract
- Master Transaction Confirmation

The LEC Fuel Management Agreements enable forward fuel transactions and daily fuel related activities, including nominations (scheduling), fuel balancing, fuel pricing, billing, and arrangement for delivery of any 3rd party fuel supplies.

The LEC Fuel Management Agreements provides for forward fuel transactions, however, forward procurement through NCPA is limited to the prompt month, and any longer term procurement of fuel supply must be undertaken pursuant to separate agreements between NCPA and a project participant for fuel supply (e.g. Natural Gas Program Agreement).

NCPA is enabled to procure fuel on a forward basis for the LEC project for 6 of the 13 participants in the project. The other 7 project participants deliver 3rd party fuel to the Fuel Manager or pay for daily fuel in accordance with the terms of the LEC Fuel Management Agreements.

The LEC project is an approximately 300 MW gas-fired plant, located in Lodi, California, with a full-load heat rate of 6.8 MMBtu/MWh. Total fuel consumption at the LEC facility over the last 12 months was approximately 38,000 MMBtu/day, with forward procurement by NCPA on behalf of 6 project participants of approximately 4,500 MMBtu/day. Consumption data by month is provided below in Table 2.

TABLE 2

Lodi Energy Center Generation and Gas Usage							
Year	Month	Number of Days	GEN MWh	Metered Gas Usage mmBTUs	Forward Gas Supply mmBTUs	Metered mmBTU / Day	Forward Gas Supply mmBTU / Day
2014	9	30	178,829	1,251,547	130,650	41,718	4,355
2014	10	31	197,715	1,371,546	132,835	44,243	4,285
2014	11	15	51,636	372,684	70,125	24,846	4,675
2014	12	28	106,338	759,691	135,100	27,132	4,825
2015	1	31	196,019	1,368,474	153,450	44,144	4,950
2015	2	28	151,600	1,073,330	128,800	38,333	4,600
2015	3	31	184,507	1,299,294	151,900	41,913	4,900
2015	4	30	181,244	1,269,481	94,800	42,316	3,160
2015	5	19	91,067	645,980	57,000	33,999	3,000
2015	6	26	142,275	1,009,449	101,400	38,825	3,900
2015	7	24	103,882	740,534	128,160	30,856	5,340
2015	8	26	137,266	971,263	139,100	37,356	5,350
	Totals:	319	1,722,379	12,133,272	1,423,320	38,035	4,462

Combustion Turbine Project #2 (STIG)

NCPA procures natural gas as fuel for the STIG on a daily basis, pursuant to certain Operating Procedures contained in the Facilities Agreement. Such purchases are made under a NAESB Base Contract, as modified by a set of Special Provisions, and a Master Transaction Confirmation.

Combustion Turbine Project #2 is a 50 MW Steam Injected Gas Turbine generator (STIG) located in Lodi, California.

Combustion Turbine Project #1

NCPA procures natural gas as fuel for the Combustion Turbine Project #1 on a daily basis, pursuant to certain Operating Procedures contained in the Facilities Agreement. Such purchases are made under a NAESB Base Contract, as modified by a set of Special Provisions, and a Master Transaction Confirmation.

Combustion Turbine Project #1 is made up of three 25 MW combustion turbine units, where two of the combustion turbines are located in Alameda, CA and one of the combustion turbine units is located in Lodi, California.

Gas Pipeline Agreements

NCPA entered into natural gas pipeline contracts in 1991 to acquire firm natural gas pipeline transport from Alberta, Canada (AECO) to the Pacific Gas & Electric Pipeline system (PG&E Citygate) on behalf of participants in the Combustion Turbine Project #2 (Diagram 1). The amount of capacity acquired is sufficient to supply approximately 25% of the annual projected capacity factor of the STIG project.

The contract commitments made for the two United States segments of the pipeline (GTN and CGT) have a term of 30 years, and remain in effect through October 31, 2023. The contract commitments for the two Canadian segments of the pipeline (NOVA and Foothills) were made with an initial term of 15 years, originally expiring in 2008. Since 2008, NCPA has renewed the contract commitments for the two Canadian segments of the pipeline on a year-by-year basis, with the current contract commitments for the two Canadian segments effective through October 31, 2016.

Fixed costs associated with each segment of path from Alberta, Canada to PG&E Citygate are shown in Table 3. In addition, the revenues earned through the AMA pipeline release process net of management fees are also included in Table 3.

DIAGRAM 1

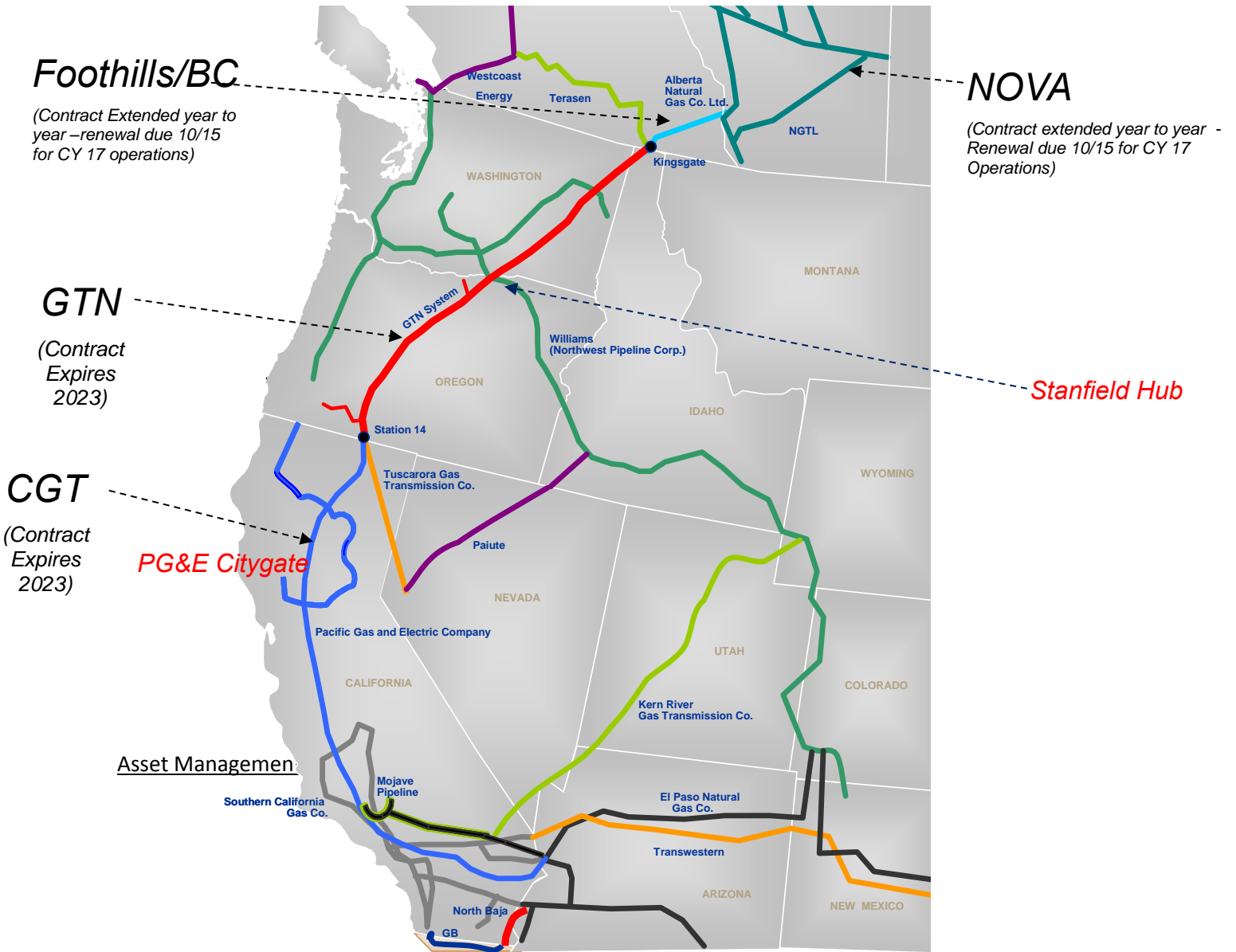


TABLE 3

GAS TRANSPORT FIXED COSTS

STIG Pipeline Fixed Costs and Released Capacity Payments									
YEAR	MONTH	NOVA	BC SYSTEM	GTN	CGT	Total Fixed Costs	Noble Released Capacity Payment	MGMT FEE	Net Cost to NCPA
2014	9	\$ 12,801	\$ 7,019	\$ 28,326	\$ 15,033	\$ 63,179	\$ 57,718	\$ 1,720	\$ 7,181
2014	10	\$ 12,572	\$ 6,894	\$ 29,270	\$ 15,033	\$ 63,768	\$ 51,597	\$ 1,778	\$ 13,949
2014	11	\$ 12,446	\$ 6,824	\$ 28,326	\$ 15,033	\$ 62,628	\$ 55,589	\$ 1,720	\$ 8,760
2014	12	\$ 12,223	\$ 6,702	\$ 29,270	\$ 15,033	\$ 63,228	\$ 72,055	\$ 1,778	\$ (7,049)
2015	1	\$ 11,261	\$ 6,114	\$ 29,270	\$ 15,033	\$ 61,677	\$ 39,340	\$ 1,778	\$ 24,115
2015	2	\$ 10,914	\$ 5,927	\$ 26,438	\$ 15,033	\$ 58,311	\$ 66,780	\$ 1,606	\$ (6,864)
2015	3	\$ 10,811	\$ 5,870	\$ 29,270	\$ 15,033	\$ 60,984	\$ 73,847	\$ 1,778	\$ (11,085)
2015	4	\$ 11,064	\$ 6,007	\$ 28,326	\$ 15,033	\$ 60,429	\$ 56,070	\$ 1,720	\$ 6,079
2015	5	\$ 11,196	\$ 6,079	\$ 29,270	\$ 15,033	\$ 61,578	\$ 57,763	\$ 1,778	\$ 5,593
2015	6	\$ 11,032	\$ 5,990	\$ 28,326	\$ 15,033	\$ 60,381	\$ 72,086	\$ 1,720	\$ (9,985)
2015	7	\$ 10,605	\$ 5,758	\$ 29,270	\$ 15,033	\$ 60,665	\$ 84,251	\$ 1,778	\$ (21,808)
2015	8	\$ 10,376	\$ 5,633	\$ 27,569	\$ 15,033	\$ 58,611	\$ 81,034	\$ 1,778	\$ (20,645)
		\$ 137,302	\$ 74,816	\$ 342,931	\$ 180,391	\$ 735,440	\$ 768,130	\$ 20,930	\$ (11,759)
		18.7%	10.2%	46.6%	24.5%	100.0%			

Asset Management Agreement for Pipeline Transportation Capacity

NCPA currently take services from a Third Party to manage the day-to-day operations of its firm interest in the pipeline. The terms and conditions of this arrangement are contained in an Asset Management Agreement for Pipeline Transportation Capacity. The set of contracts containing the services include:

- NAESB Base Contract
- Special Provisions to the NAESB Base Contract
- Asset Management Agreement for Pipeline Transportation Capacity

The Asset Management Agreement provides the management services for NCPA's gas pipeline entitlements on the NOVA, Foothills, GTN and PG&E CGT pipelines. Together, these four pipeline segments provide a path from the Canadian gas fields in Alberta, Canada to the PG&E Citygate delivery point in Northern California and can provide up to 25% of the CT#2 full load natural gas requirements.

Under the Asset Management Agreement, NCPA releases its GTN pipeline capacity (2,743 MMBtu/day) to the asset manager in accordance with terms and conditions prescribed by FERC for this FERC jurisdictional line. The other three pipelines are not FERC jurisdictional and have no formal release

requirements, but are generally released by NCPA to the asset manager in the same fashion, in order to match the GTN release. The asset manager acts as NCPA's agent for the management of pipeline capacity and delivery of gas on NCPA's pipeline entitlements and ensures compliance with tariffs and regulations on each pipeline. The maximum daily pipeline capacity for each of the four (4) segments is listed in Table 4 below:

TABLE 4

Managed Capacity Pipeline Information	Receipt Point	Delivery Point	Maximum Daily Quantity (MMBtu/day)
TCPL Alberta (NOVA)	AECO	TCPL BC	2,868
TCPL BC (BC System)	TCPL BC	Kingsgate	2,814
GTN	Kingsgate	Malin	2,743
PG&E CGT	Malin	PG&E Citygate	2,704

TABLE 5

Plant Information	# of Units	MW/Unit	Address/Location	MMBtu/day
STIG LM5000	1	50	12751 N. Thornton Rd, Lodi, CA	11,136
CT (Frame 5)	1	25	2015 W. Turner Rd, Lodi, CA	8,000
CT (Frame 5)	2	25	2900 Main St, Alameda, CA	16,000

PG&E Gas Service Agreements

NCPA has entered into Natural Gas Service Agreements with PG&E for delivery of natural gas to each of the thermal power plant projects identified above.

A contract relationship diagram is attached as Exhibit 2.

Additional Background Information Related to Current Contract Status

The LEC Fuel Management Agreements service has been provided by JPMorgan since June of 2010. In March of 2014, JPMorgan announced that it was exiting segments of its global physical commodities business and that it had entered into an agreement with Mercuria Energy Trading SA (METSA) and Mercuria Energy Group Limited (MEG), whereby Mercuria would acquire certain of JPMorgan's physical lines of business, including its North American natural gas and power business. In September of 2014, JPMorgan provided notice to NCPA that it was intending to novate NCPA's transactions with JPMorgan to Mercuria and has been working with NCPA to finalize this novation since that time. No formal deadline has been established to complete this work, but reviews and approvals by all parties are in final stages.

The two sections of the Canadian pipeline (Nova and Foothills) managed under the Asset Management Agreement must be renewed by October 31, 2015 in order to maintain NCPA's priority right to pipeline capacity for the period from October 31, 2016 through October 31, 2017.

Consulting services being requested are to assist NCPA in evaluating options and developing a strategy to best utilize its existing mix of assets to serve its members and project participants. The novation from JPMorgan to Mercuria which is in progress and nearly complete, coupled with the need to determine whether to renew NCPA's rights on the NOVA and Foothills pipeline systems prior to October 31, 2015, will necessitate an extremely fast review and response.

Deliverables

1. Identify reasonable alternatives to annual renewals of the NOVA and Foothills pipelines through 2023 and provide the expected NPV and estimated probability of success for each alternative identified. Include an assessment of the following:
 - a. Assess and report on impact to pipeline capacity release payments, which are based on AECO to PG&E Citygate value under the current Asset Management Agreement for Pipeline Capacity, if the NOVA and Foothills segments are not renewed
 - b. Assess and advise as to whether attempting to transact at the Stanfield gas hub/market would regularly strand the GTN pipeline between Kingsgate and Stanfield
 - c. Assess and advise whether loss of the Canadian transport (NOVA and Foothills) could place NCPA's entire GTN transport value at risk
 - d. Assess and advise on the risk of losing access to firm transport capacity on the NOVA and Foothills systems if the NOVA and Foothills segments are not renewed
2. Review NCPA's Fuel Management Agreements (LEC Fuel Management Agreement, Asset Management Agreement for Pipeline Transportation Capacity and Gas Purchase, and Natural Gas Purchase Program) and provide recommendations for improvements to individual agreements and/or recommendations for integration of agreements that could lead to increased value.
 - a. Develop and provide estimates of cost savings/losses avoided that are expected to be realized through implementation of recommendations
3. Provide an economic assessment of the strategy of using municipal financing to purchase natural gas on a long-term basis.
 - a. Develop and provide estimates of cost savings/losses avoided that can be realized through implementation of long-term natural gas purchases.
 - b. Varying natural gas contract length should be considered as well as contract options such as prepayment versus no prepayment.
 - c. Penalty and cost implications if for some reason the gas was not consumed by the plant due to extended outages.

Required Elements of Proposals

1. Proposal Summary

The summary shall discuss the highlights, key features and distinguishing points of the proposal. A separate sheet shall include a list of the individuals and contacts for this proposal and how to communicate with them.

2. Profile on the Proposing Firm

The profile shall include a brief description of the proposer's firm as well as the proposed organizational structure for completing the work. Include a discussion of the firm's capacity to complete the assignment according to the schedule provided as part of the proposal.

3. Qualifications

Include a brief description of the proposer's qualifications and previous experience on similar or related projects, pipeline segments and resource basins. Provide in a table format, descriptions of pertinent project experience with other public and private sector agencies that includes a summary of the work performed, the total project cost, the percentage of work the firm was responsible for, the period over which the work was completed, and the name, title and phone number of clients to be contacted for references. Give a brief statement of the firm's adherence to the schedule and budget for the project.

4. Work Plan

All proposals require the submittal of a well-conceived service plan. The plan shall include a full description of major tasks and subtasks. This section of the proposal shall establish that the proposer understands the agency's objectives and work requirements and proposer's ability to satisfy those objectives and requirements. Succinctly describe the proposed approach for addressing the required services and the firm's ability to meet the agency's schedule, outlining the approach that would be undertaken in providing the requested services.

5. Project Staffing

Discuss how the proposer would propose to staff this project. Key project team members shall be identified by name, title and specific responsibilities on the project. An organizational chart for the project team and resumes for key proposer personnel shall be included. Key personnel will be an important factor considered by the agency. Changes in key personnel may be cause for rejection of the proposal.

6. Proposal Exceptions

This section of the proposal shall discuss any exceptions or requested changes that the proposer has to the agency's RFP conditions, requirements and sample contract. If there are no

exceptions noted, it is assumed the proposer will accept all conditions and requirements identified in the "Sample Agreement for Services". Items not excepted will not be open to later negotiation.

7. Proposal Cost Sheet and Rates

Fee information is relevant to a determination of whether the fee is fair and reasonable for the services to be provided. Provision of this information assists the agency in determining the proposer's understanding of the project and provides staff the tools to negotiate the cost.

Include the proposed costs to provide the services requested. Include any other cost and price information, plus a not to exceed amount, that would be contained in a potential agreement with the agency.

Contract Type and Method of Payment

It is anticipated that the agreement resulting from this RFP, if awarded, will be a per task form of contract. A form of Agreement is attached as Attachment 1. The method of payment to the successful proposer shall be on a per task basis with a maximum "not to exceed" fee as set by the proposer in the proposal or as negotiated between the proposer and agency as being the maximum cost to perform all work. This figure shall include direct costs and overhead, such as, but not limited to, transportation, communications, subsistence, and materials and subcontracted items of work. Payment will be made on completion of each task.

Proposers shall be prepared to accept the terms and conditions of the Agreement, including insurance requirements as spelled out in the following information in their proposal:

- Clear identification of each proposed change to the Agreement including any relevant attachments to the Agreement.
- Explanations of the reasons for the requested change, along with recommendations for alternative language.

The above factors will be taken into account in evaluating proposals. Proposals that take substantial exceptions to the proposed Agreement may be determined by the Agency, at its sole discretion, to be unacceptable and no longer considered for award.

Proposed Timeline

RFP Issued	October 19, 2015
Deadline for questions, clarifications	October 23, 2015
Proposals Due	October 30, 2015
Finalist Identified	November 6, 2015
Consultant selection and contract preparation	November 13, 2015
Contract awarded	November 20, 2015
Work commences	October 23, 2015
Work completed	No later than February 29, 2016

Submission of Proposals

All proposals shall be submitted to:

NCPA

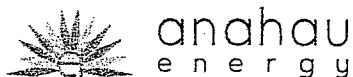
Attention: Gillian Biedler

651 Commerce Drive

Roseville, CA 95678

Proposals shall be delivered no later than 3:00 pm on October 30, 2015.

The proposer shall submit three (3) hardcopies of its proposal to the address above.



October 30, 2015

Attn: Gillian Biedler
Northern California
651 Commerce Drive
Roseville, CA 95678

Re: RFP for Natural Gas Acquisition and Asset Advisory Services

To whom it may concern,

Anahau Energy, LLC ("Anahau") is pleased to submit the included response to the Northern California Power Agency Request for Proposal for Natural Gas Acquisition and Asset Advisory Services.

Anahau is an award winning energy services company with a long and successful track record in the energy space. For more than ten years, Anahau has served utilities, producers, developers, trading and marketing companies, and energy commodity hedge funds. Exceptional customer service drives the company's growth, and though many competitors provide execution services, Anahau has set itself apart with proactive marketing and focus on the highest levels of customer satisfaction. This approach, supported by the company's extensive background in energy products and services, allows Anahau to offer value-added solutions to its clients.

We respectfully appreciate being considered in this process. Please do not hesitate to contact us with any questions or if you are in need of additional information.

Kind Regards,

A handwritten signature in black ink, appearing to read "Hans O. Saeby", is written over the printed name and title.

Hans O. Saeby
Chief Financial Officer
Anahau Energy, LLC

Anahau Energy Contact Information

Primary Contact

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mobile: (310) 940-2157

Secondary Contact

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Secondary Contact

Theresa Gendron
theresa.gendron@anahauenergy.com
direct: (310) 906-4858
mobile: (310) 850-8652

Entity and Address

Anahau Energy, LLC
2041 Rosecrans Avenue, Suite 322
El Segundo, CA 90245

Main

(310) 414-2300

Fax

(310) 414-2301

General Inquiries

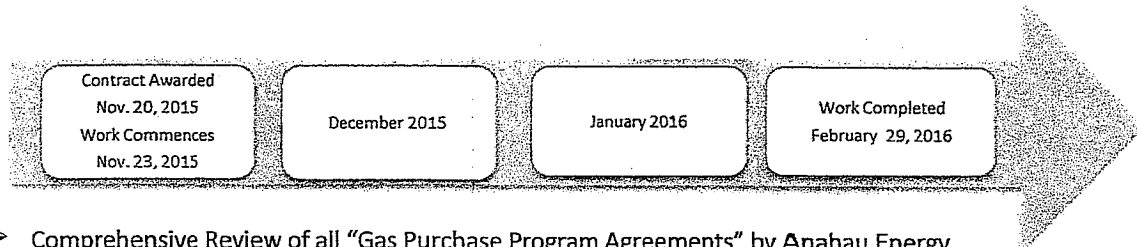
info@anahauenergy.com

**Product Inquiries, RFPs, and
Service Requests**

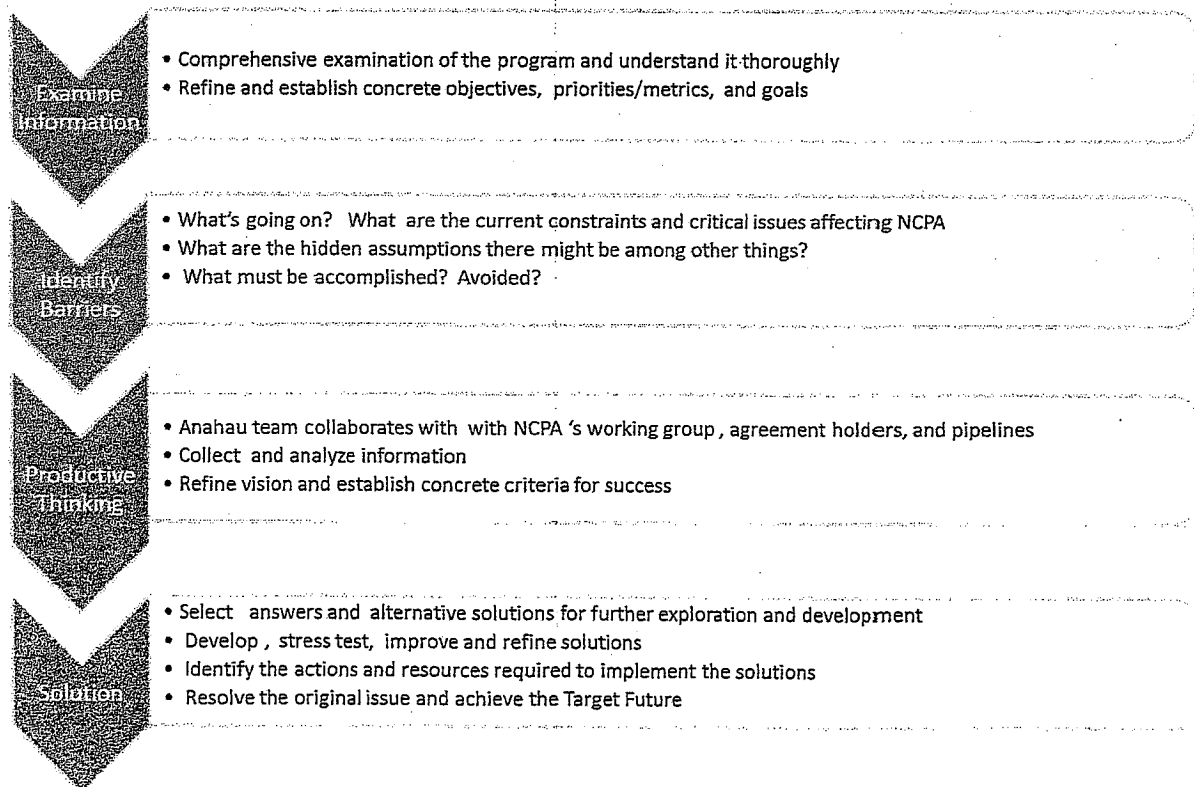
proposals@anahauenergy.com

1. Proposal Highlights

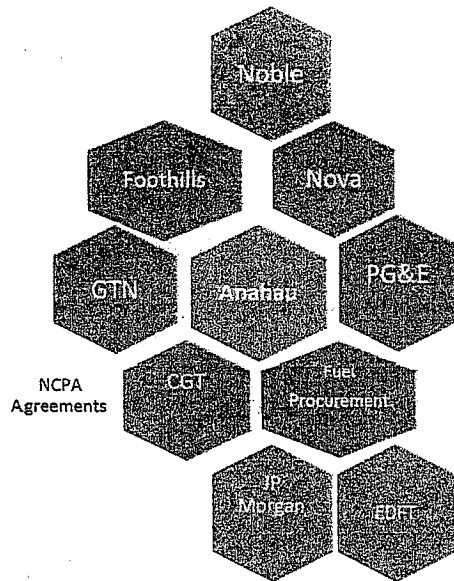
Anahau and NCPA Process Overview



- Comprehensive Review of all "Gas Purchase Program Agreements" by Anahau Energy
- Collaborate with NCPA, EDFT, J.P. Morgan, Noble Americas.
- Evaluate all optionality and historical performance of Nova, Foothills, GTN, CGT and all other agreements
- Organize findings, analysis and solutions
- Schedule weekly conference calls with NCPA or locational visits as needed.
- Final assessment, detailed findings and recommendations to NCPA



Recommendation/Implementation

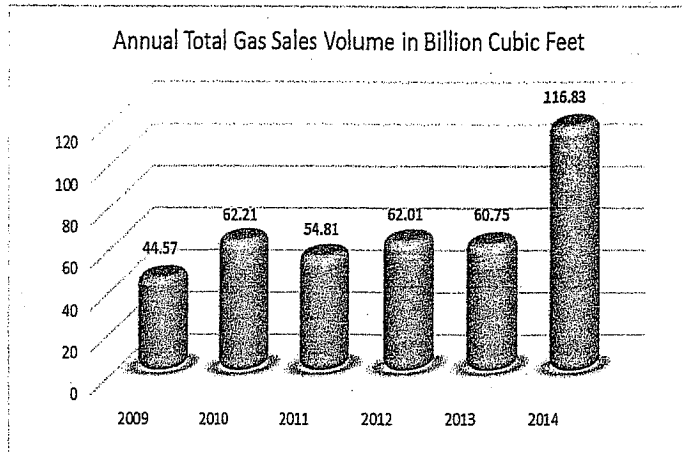


- Provide perspective, input, work internally with NCPA to insure solutions are viable.
- Provide clarity and optionality daily, weekly, and monthly as needed
- Provide expertise and resources to specific needs
- Keep process on track

2. Profile of Proposing Firm

Anahau Energy, LLC ("Anahau") is a certified minority-owned enterprise ("MBE") marketer of natural gas, power, and renewable products, in operation since 2005.

In August of 2013, the Anahau Energy limited liability company was restructured to include Inupiat Energy Partners and EDF Trading North America as members. In the twenty-three months post restructure, the Company has transitioned to complete credit-based trading activity, and is now enabled with the industry's largest suppliers, utilities, and integrated market participants. Increased awareness of the Anahau "brand" has resulted in an increase in volumes transacted of approximately 100% from 2013 to 2014.



Anahau revenue is generated through three primary streams: Natural Gas, Power and Management Services. All three areas are growing and we will be adding Commercial and Industrial as a fourth stream in early 2016. Anahau may also provide or facilitate certain product offerings for customers desiring certified "green".

Energy Ownership

Anahau is owned by Encarnacion Ventures Inc. (25.5%), Inupiat Energy Partners, LLC (25.5%), and EDF Trading North America, LLC (49%).

MBE Certifications

Anahau is certified by the National Minority Supplier Development Council (NMSDC) through the Southern California regional council (SCMSDC) and by the California Public Utility Commission through its Supplier Clearinghouse.

Anahau has 51% minority ownership and 49% non-minority ownership. In addition, Anahau has established a strategic relationship with EVI Energy (Encarnacion Ventures Inc.) to provide service to markets for woman-owned business that Anahau is no longer placed to serve. EVI Energy is certified as a Historically Underutilized Business ("HUB") by the State of Texas, and as a Woman-Owned Minority Business Enterprise by the National Minority Supplier Development Council ("NMSDC").

3. Qualifications

Anahau is active in the physical and financial markets across the United States.

General Customer Base:

LDC, Municipalities, Producers, Industrial End Users, Financial Institutions, Energy Marketers

Common Trading Instruments:

Physical: Index, Fixed Price, Physical Basis, Storage, Transportation, and Options

Financial: Futures, Basis Swaps, Swing Swaps, Index Swaps, and Options

Management Services and Long-Term Supply

Anahau is known to be a customer-oriented provider of producer and asset management services. Current activity contributes approximately 35% of Anahau's revenue. This revenue stream is scalable and is expected to lead to additional trading and marketing opportunities.

Highlights of Relevant Transactional Activity

Anahau may provide both short-term and long-term supply and management service options:

Transaction Type	Description
Asset Management	Offtake and multi-asset management structure for cross-region renewable energy projects sourcing from Midwest producers delivering to Midwest utilities and a California municipality. (3-6 pipelines, storage, transportation, and imbalance management)
Asset and Fuel Management Services	Offtake and multi-asset management for landfill biogas company – East and West coasts. Project includes coordination of renewable energy credits and regulatory compliance. (3-6 pipelines, storage, transportation, and imbalance management)
Asset and Fuel Management Services	Offtake and multiple asset management for renewable energy project credits and regulatory compliance.
Resource Adequacy	California utility 2017 requirement for long-term resource adequacy
Resource Adequacy	California utility 2018 requirement for long-term resource adequacy
Long-term Supply	Long-term MBE power supply to retail suppliers.

Source: Anahau management services and long-term transaction data 2013 - 2015

Natural Gas

Natural gas trading, origination, and ancillary services are Anahau's core areas of strength. We are strongest in the Western US, and are growing our East and Midcontinent presence. Enabled counterparty contracts, strategic partnership, and credit agreements provide Anahau the liquidity and flexibility to quickly respond to market movements and effectively manage client assets.

West:

SoCal Gas – Citygate, Border points
PG&E – Citygate, Border points
GTN – Malin
El Paso – San Juan, Bondad
Kern River- Kern Rec, Kern Del, Opal
Transwestern – San Juan

East/Gulf:

Columbia Gas Pipeline – TECO Pool
Dominion – South Point, North Point
Tennessee Gas – 500 Leg, 800 Leg
Transco – Station 45, 65, 85, Leidy
Sabine – Henry Hub

Mid Continent:

ANR- Southwest
Northern Border- Port of Morgan
Northern Natural – Demarc, Ventura
NGPL- Midcon, Texok, LA, NIPSCO, Nicor
Great Lakes – Consumers Pool
DTE – MichCon Citygate

Power

Origination and long-term power supply deals are a third area of strength. Anahau provides the power market with a strong MBE offering and operational capability backed by EDFTNA. We see big upside and opportunity for leveraging our strategic partnership to provide competitive short- and long-term solutions.

G.O. 156 Services

Provide products and services to utility companies in support of CPUC General Order 156 procurement requirements for small and diverse business entities.

Credit Structure

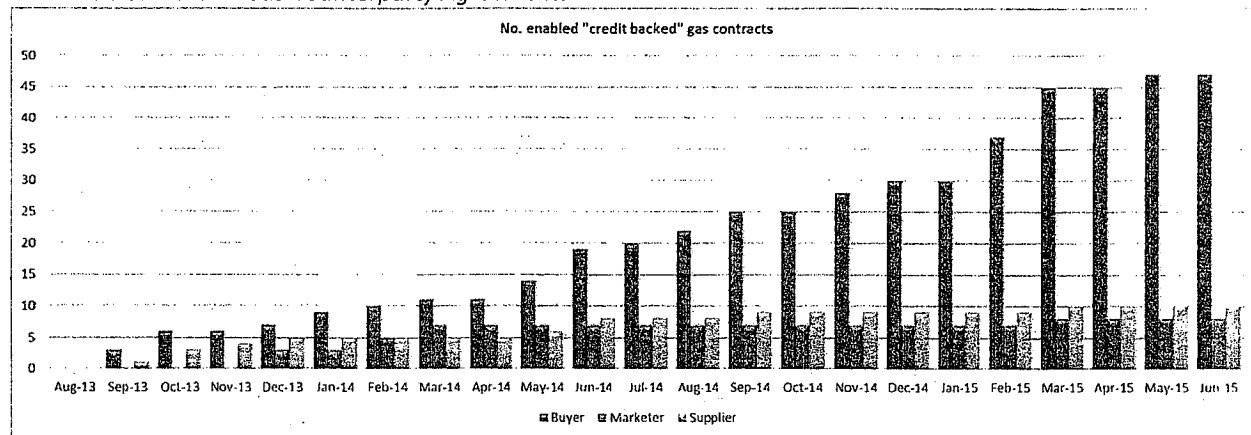
Anahau has a strong credit partner with EDF. A non-margining agreement has been placed for supply that is sourced from EDFTNA, and Anahau has a very competitive credit support arrangement for non-EDFTNA counterparty transactions. The partnership and credit arrangement with EDFTNA are core strengths, and a distinct part of Anahau's competitive advantage in the overall market.

Other Opportunities

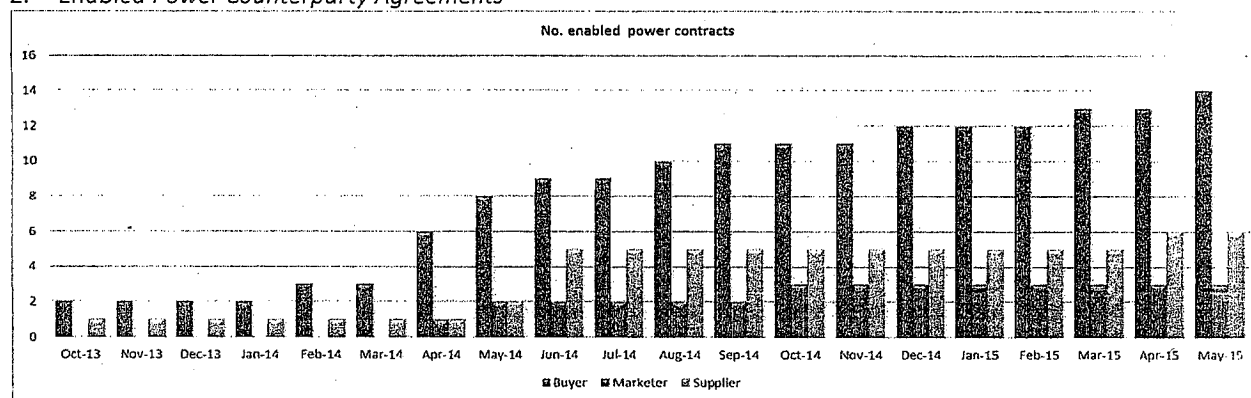
Anahau has focused on growing its national brand. Current initiatives include expansion of the existing lines of business to include the Commercial and Industrial revenue stream, and appropriate layering of risk across the business. Anahau also has begun market expansion projects that consider electronic trading and energy storage opportunities for MBEs.

Targeted Market Activity

1. Enabled Natural Gas Counterparty Agreements



2. Enabled Power Counterparty Agreements



By approved credit line	All	East	MidCon	West	Total
Above \$20m	1			3	4
Between \$10m and \$20m		1		1	2
Between \$5m and \$10m	3	13	6	9	31
Between \$1m and \$5m	7	3	3	14	27
Less than \$1m	7	3		5	15
Grand Total	18	20	9	32	79

By counterparty type	All	East	MidCon	West	Total
Buyer		19	8	30	57
Marketer	6	1	1	1	9
Supplier	12			1	13
Grand Total	18	20	9	32	79

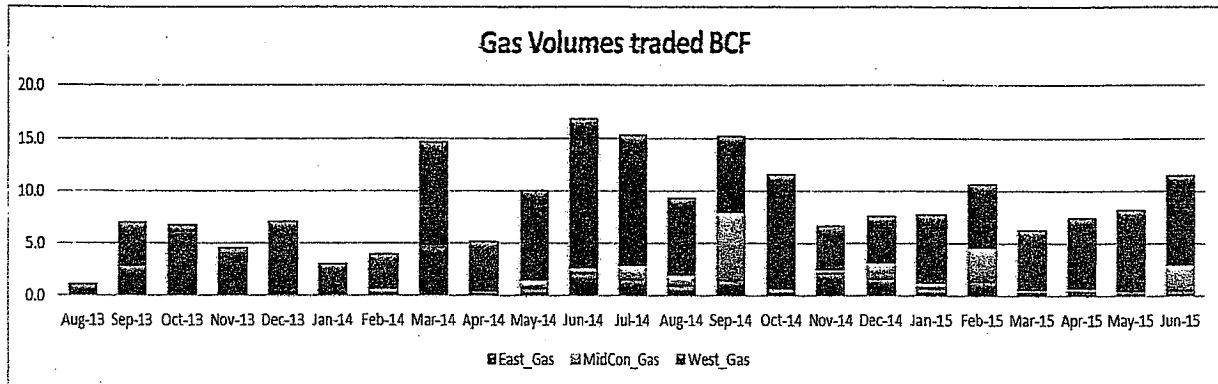
Key Independently owned utilities:

Southern California Edison Company (SCE)
San Diego Gas and Electric Company
Southern California Gas Company
Washington Gas Light Company
Pacific Gas & Electric Company - Electric Fuels
Oklahoma Gas and Electric Company
City of Los Angeles Department of Water and Power
Baltimore Gas & Electric Company

Key Marketers / Suppliers

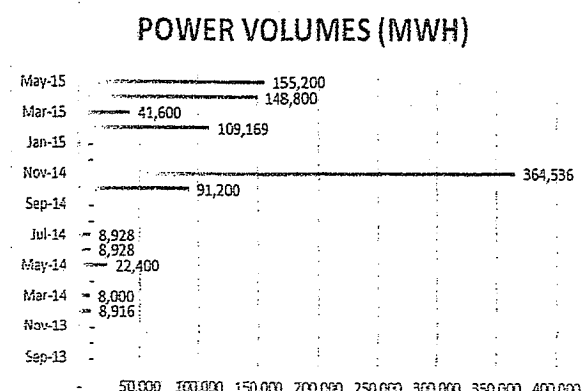
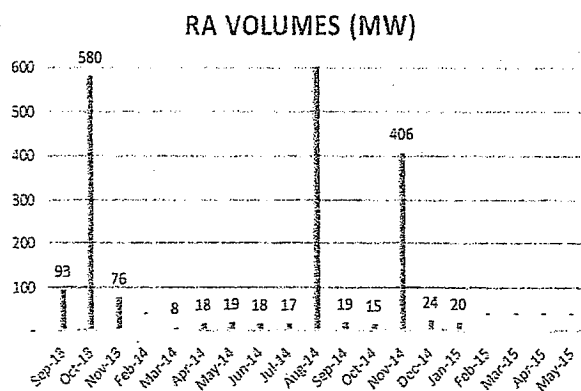
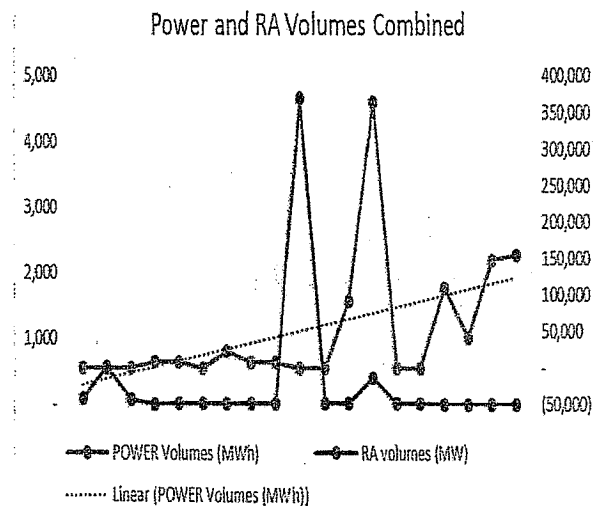
EDF Trading North America
ConocoPhillips Company
Chevron Natural Gas, a division of Chevron USA Inc.
Total Gas & Power North America, Inc.
Pacific Summit Energy, LLC
Occidental Power Services Inc.
Occidental Energy Marketing Inc.
Macquarie Energy, LLC
Calpine Energy Services, L.P.
Exelon Generation Company, LLC
DTE Energy Trading Inc.
Freeport Commodities LLC

Gas Volumes Traded



Power Volumes Traded

	POWER Volumes (MWh)	RA volumes (MW)
Sep-13	-	93
Oct-13	-	580
Nov-13	-	76
Feb-14	8,916	-
Mar-14	8,000	8
Apr-14	-	18
May-14	22,400	19
Jun-14	8,928	18
Jul-14	8,928	17
Aug-14	-	4,667
Sep-14	-	19
Oct-14	91,200	15
Nov-14	364,536	406
Dec-14	-	24
Jan-15	-	20
Feb-15	109,169	-
Mar-15	41,600	-
Apr-15	148,800	-
May-15	155,200	-



4. Work Plan

Comprehensive Review and Deliverables of NCPA's Natural Gas Pipeline & Service Agreements

	PG&E	Nova	Foothills	GTN	GGT	Noble
Criteria/Purpose	Natural Gas Service Agreement	Firm Transport from AECO to TCPL/BC	Firm Transport from TCPL/BC to Kingsgate	Firm Transport from Kingsgate to Malin	Firm Transport from Malin to PG&E Citygate	Asset Management Agreement (AMA)
Optionality	Identify any optionality: FT, IT, Storage, Imbalance, Trading, Operations	Identify any optionality: FT, IT, Storage, Imbalance, Trading, Operations	Identify any optionality: FT, IT, Storage, Imbalance, Trading, Operations	Identify any optionality: FT, IT, Storage, Imbalance, Trading, Operations	Identify any optionality: FT, IT, Storage, Imbalance, Trading, Operations	Identify options and alternatives
Term		- Year to Year - Renewal due Oct.2015	- Year to Year - Renewal due Oct. 2015	Expires 2023	Expires 2023	
Cost & Risk/Reward	Identify economic impact & risk/reward	Identify economic impact & risk/reward	Identify economic impact & risk/reward	Identify economic impact & risk/reward	Identify economic impact & risk/reward	Identify economic impact & risk/reward
Credit/Compliance	Identify credit cost and compliance requirements if any	Identify credit cost and compliance requirements if any	Identify credit cost and compliance requirements if any	Identify credit cost and compliance requirements if any - FERC	Identify credit cost and compliance requirements if any	Identify credit cost and compliance requirements if any
Deliverables	Identify options & risk/reward	Identify options & risk/reward	Identify options & risk/reward	Identify options & risk/reward	Identify options & risk/reward	Identify alternatives & risk/reward

	EDF/NAESB	EDF Master Confirmation	J.P. Morgan/Mercuria NAESB	J.P. Morgan Master Confirmation	LEC Power Sales Agreement	LEC Project Mgmt & Operations Agreement
Function	Buy/Sell Nat Gas	Fuel Procurement & Scheduling	Buy/Sell Nat Gas	Fuel Procurement & Scheduling	Sales	Management Services
Services & Process	Identify Synergies and relationship structure	Identify Cost/Benefits & Streamline Process	Identify Synergies and relationship structure	Identify Cost/ Benefits & Streamline Process	Identify Cost/Benefits	Identify Asset Management Components & Streamline Process
Term		Month to month		Month to Month		
Penalties/ Performance	Identify Risk/Cost	Identify Risk/Cost	Identify Risk/Cost	Identify Risk/Cost	Identify Risk/Cost	Identify Risk/Cost
Credit Risk/Reward Compliance	Identify economic impact/risk/reward	Identify economic impact/risk/reward	Identify economic impact/risk/reward	Identify economic impact/risk/reward	Identify economic impact/risk/reward	Identify economic impact/risk/reward
Deliverables	Identify alternatives and risk/reward	Identify alternatives and risk/reward	Identify alternatives and risk/reward	Identify alternatives and risk/reward	Identify alternatives and risk/reward	Identify alternatives and risk/reward

Barriers

What's going on?

Identify and explore issues fully

- What needs fixing or improving?

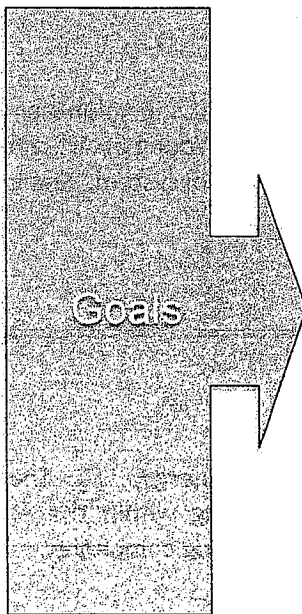
Understand the impact and cause of the issues

- What other affects it might be having and hidden assumptions there might be?

Examine who and what is involved

- What constraints do we have to work with? What must be avoided?
 - What are the benefit if things stay the same? Or if things changed?
-

Opportunities



- Size & Priority: Provide a context and focus for stakeholders (CPUC, Project participants, members).
- Areas: Identify, prioritize and develop processes and solutions to current challenges
- The Road Forward: Develop targets prioritized by highest likelihood of success for NCPA

5. Project Management

The project will be managed by a team of experienced professionals, including 2-3 members of Anahau's management team:

Chief Executive Officer (Suyen Pell)
Chief Financial Officer (Hans Saeby)
Chief Operating Officer (Theresa Gendron)

Management Team

Suyen Encarnacion Pell

Suyen Pell is co-founder and Chief Executive Officer of Anahau Energy, LLC, a certified minority business enterprise transacting in energy trading, marketing, management services, and consulting.

With more than 25 years of experience in energy, Ms. Pell brings a wealth of knowledge and hands-on experience to her position. Before assuming her current role, she achieved the position of Chief Trading Officer at Cook Inlet Energy, formerly the largest minority owned energy marketer in the United States with revenues in excess of \$3 billion, service offerings across the whole of North America, and natural gas throughput exceeding 4.0 Bcf/day. As CTO, she guided her teams in the development of complex structured products and services that utilized multiple commodities, incorporated trading and hedging solutions, and optimized assets of the organization and its customer base. Ms. Pell received her formal education from the University of California Los Angeles, UCLA Anderson School of Management, and Northwestern Kellogg School of Management.

Ms. Pell is a member of the Board of Managers for Anahau Energy, LLC.

Ms. Pell is a believer in inspiring young people and has contributed countless hours in volunteer work which has included teaching children at her local church, acting as a docent for Young at Art, and has been a fundraising chair for several programs within the Los Angeles Public School system. She is also a member of the International Karate Organization, Kyokushin-kaikan.

Ms. Pell lives in Los Angeles with her husband, David and two children.

Theresa E. Gendron

Theresa Gendron is Chief Operating Officer and co-founder of Anahau Energy, LLC. She has approximately 20 years of increasing responsibility in trading and marketing within the energy industry, and has held key executive committee roles with multiple energy trading companies.

Ms. Gendron has specific skill sets in optimization and management of Renewable Natural Gas (Landfill Gas), fuel supply, transportation and storage assets across the energy value chain. She has an extensive transactional experience in physical and financial derivative structured products. At Anahau, she is responsible for the daily operations including portfolio management, gas control operations, commodity trading activities, planning, pricing & risk functions, marketing and customer service. Ms. Gendron also brings strong relationships with utilities, producers, and energy marketing and trading companies.



Prior to forming Anahau, Ms. Gendron led trading teams and developed new markets for Cook Inlet Energy. As a successful team leader, she structured Midcontinent trading of natural gas and was handpicked by the CEO to spearhead the development of a power trading and marketing desk.

Hans O. Saeby

Hans Saeby is Chief Financial Officer of Anahau Energy, LLC and the primary executive overseeing technology and infrastructure.

Prior to his current appointment, he held the position of President and Chief Operating Officer for Macquarie Cook Energy, LLC, a position that he assumed in 2005 after Cook Inlet Energy Supply, the company that he co-founded with Gregory Craig, was sold to Macquarie Bank Limited. He has an extensive and broad array of accomplishments, having more than 30 years of experience with industry leaders in the United States and Canada, including Amoco Corporation, Amoco Canada, and Dome Petroleum.

Mr. Saeby received a Department of Commerce appointment to the Industry Trade Advisory Committee ("ITAC"), an advisory council jointly administered by the Department of Commerce and the United States Trade Representative ("USTR"). He is a registered professional engineer and holds a Masters of Science in Civil Engineering from the University of Lund in Sweden.

Gregory L. Craig

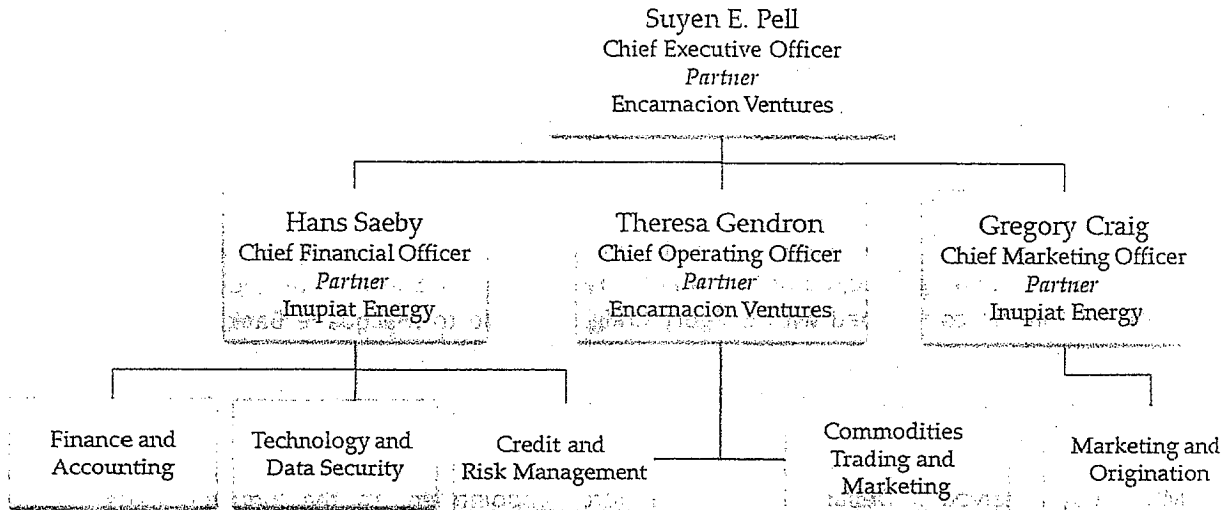
Gregory Craig is the Chairman of the Board of Anahau Energy, LLC.

Mr. Craig has been Chairman and CEO of both publicly traded and privately held energy companies. Most recently, he served as Chairman and Chief Executive Officer of Commerce Energy, a publicly listed natural gas and electricity retailer. Prior to Commerce, Mr. Craig served as CEO of Macquarie Cook Energy (formerly Cook Inlet Energy Supply) post acquisition by Macquarie Bank Limited. Mr. Craig founded Cook Inlet Energy Supply, and under his leadership, Cook Inlet grew to become the nation's largest minority-owned energy trading and marketing company.

Mr. Craig has been active on a variety of boards and advisory councils including an advisory board appointment by the Secretary of Energy and an appointment to the President's Export Council that advised the President of the United States.

Mr. Craig is Chairman of the Board of the Price Center for Entrepreneurial Studies and is a board member of Junior Achievement. He earned a Bachelor of Administration from the University of Alaska and a Masters of Business Administration from the Anderson Graduate School of Management at UCLA.

Organization Operation and Key Management



Suyen Encarnacion Pell
Chief Executive Officer and
President



Gregory Craig
Chief Marketing Officer



Theresa Gendron
Chief Operating Officer



Hans Saeby
Chief Financial Officer

Board of Managers

Gregory L. Craig, Chairman and Member – Inupiat Energy Partners, LLC
Suyen Encarnacion Pell, Manager and Member – Encarnacion Ventures Inc.
Mary Anne Breilinsky, Manager and Member – EDF Trading North America, LLC

6. Proposal Exceptions

Contract Section	Description of Modification
Section 1.3	Change "competent" to "qualified". Discuss process for reassignment.
Section 2	Please see proposal cost sheet 375 for requested compensation structure.
Section 2.4	Add "Other than those services and costs contemplated herein"
Section 2.5	Discussion of time period in waiver provision.
Section 4	To be reviewed based upon the defined Scope of Work.
Section 5	Mutual indemnity requested.
Section 8.1	Change ten (10) days prior written notice to thirty (30) days prior written notice. Include clarifying statement for "satisfactorily completed".
Section 8.4	Discussion of termination process and closeout calculation.
Section 9.1	This section shall exclude any proprietary information or models utilized in the provision of services and any information that may not be transferred by contract or law.
Section 10.1	Request that each party be responsible for its own attorney's fees.
Exhibits	To be discussed.

7. Proposal Cost Sheets and Rates

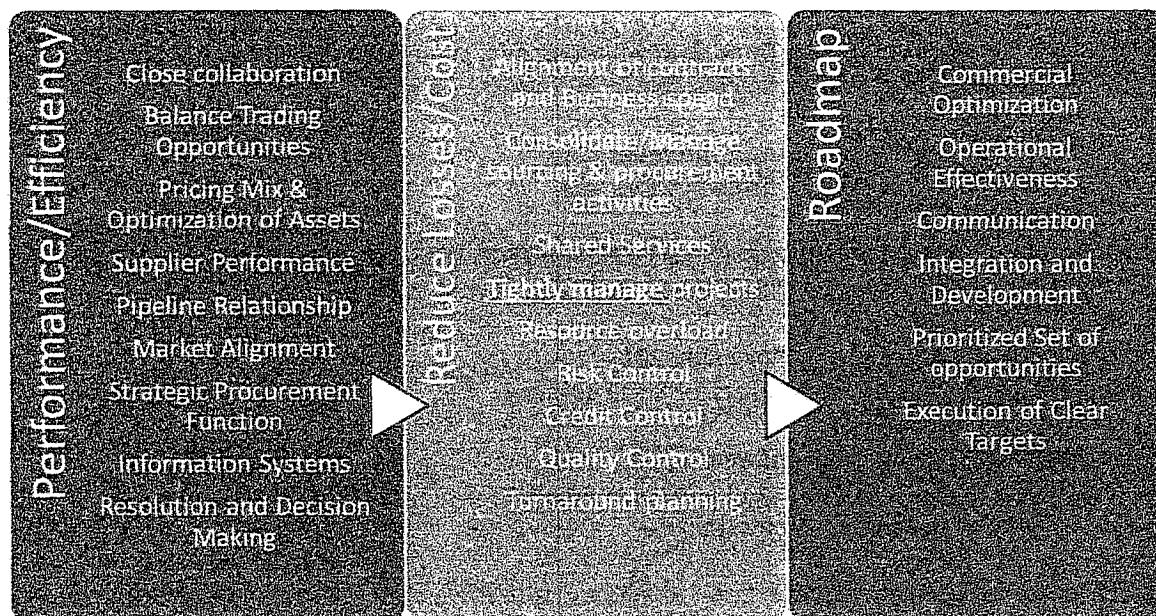
TASKS	DESCRIPTION	COST
Phase 1 – On site/Off site Introduction & Ground Rules Strategy Development	<ul style="list-style-type: none"> Understand process and responsibilities thoroughly 	Week 1
	<ul style="list-style-type: none"> Assess and streamline management strategy and procedures 	Estimated Rate: \$375 per hour
	<ul style="list-style-type: none"> Familiarize any compliance reports 	Estimated hours: 20-40 per week
	<ul style="list-style-type: none"> Review and collect all documents 	Estimated cost: \$ 7,500 – 15,000 per week
Phase 2 – Offsite Preparation and Examination	<ul style="list-style-type: none"> Comprehensive review of all agreements 	Week 2 – Week 10
	<ul style="list-style-type: none"> Collect , research, and analyze information 	Estimated Rate: \$375 per hour
	<ul style="list-style-type: none"> Refine vision and establish criteria for success 	Estimated hours: 20-40 per week
		Estimated cost: \$ 7,500 – 15,000 per week
Phase 3 – Onsite/Offsite Solution and Completion of Service		Week 11- Week 12
	<ul style="list-style-type: none"> Select answers and alternative solutions 	Estimated Rate: \$375 per hour
	<ul style="list-style-type: none"> Develop , stress test, improve and refine solutions 	Estimated hours: 20-40 per week
	<ul style="list-style-type: none"> Identify the actions and resources required to implement the solutions 	Estimated cost: \$ 7,500 – 15,000 per week
	<ul style="list-style-type: none"> Resolve the original issue and achieve the Target Future 	
Phase 4 – Onsite/Offsite Implementation		Starting March 2016
	<ul style="list-style-type: none"> Execution of Clear Targets 	TBD
	<ul style="list-style-type: none"> Commercial Optimization 	
	<ul style="list-style-type: none"> Operational Effectiveness 	

Anahau shall be compensated for services rendered in an amount not to exceed \$ _____ Thousand Dollars (\$ __00,000.00). Anahau shall notify NCPA in writing if, and when, the costs incurred under the consulting services agreement between Anahau and NCPA are approximately or equal to ninety percent (90%) of the stated NTE. Anahau will not be required to provide services, and NCPA will not be required to receive services, for Work in excess of the NTE amount unless and until, at each party's sole discretion, the party's agree in writing to raise the NTE.

8. Summary

With Anahau management services, you receive performance efficiency, cost management, and a clear path to meet your set objectives. We look forward to working with you to meet your project goals.

Should you have any questions regarding information provided, please do not hesitate to contact us.



9. Other: Awards and Recommendations

Women Business Pioneers Symposium, June 2015

Featured Panelist, Succeeding in an Entrepreneurial Environment

Profiles in Success, April 2014

Sempra Energy Annual Report of Diverse Business Enterprises

California Public Utilities Commission En Banc, November 2013

Panelist, General Order 156 – Supplier Diversity Growing to New Heights

Anahau Energy Strengthened Through New Partnership, September 2013

Press Release: <http://www.edftrading.com/pressReleases.aspx?m=19&amid=2850>

Professional Women's Magazine, September 2013

MBE Spotlight - A Standout in the Energy Business

California Supplier Diversity Roundtable – CPUC and SCE, 2012 - 2013

CPUC Invited Participant, Wholesale Power Representative

New Energy Capital Summit, November 2011

Speaker, Renewable Energy Markets for Small Business

Asian Journal, July 29, 2009 Midweek

Selected by the President of Asian Journal, Los Angeles

Cover Story for Community Mentorship

Fortune Magazine, May 2009

Selected by the National Minority Supplier Development Council, Inc.

Winner, 2008 National Supplier of the Year

National Minority Supplier Development Council, Inc.

Winner, 2008 Regional Supplier of the Year

National Minority Supplier Development Council, Inc.

Winner, 2008 Southern California Supplier of the Year - SCMSDC

Nominated by Southern California Gas Company

Nominee, 2007 Southern California Supplier of the Year - SCMSDC

Nominated by Southern California Gas Company

Member, Board of Directors for the National Council of Minorities in Energy

Washington, D.C. www.minoritiesinenergy.org

Member, National Association of Woman Business Owners (NAWBO)

Los Angeles, California

10. Strategic Alliances and Select Customers

EDF Trading North America, LLC

EDF Renewables, LLC

ArcelorMittal

Clean Energy Renewable Fuels, LLC

ConocoPhillips Company

CRC Marketing, LLC

Exelon Generation, LLC

Macquarie Energy, LLC

Occidental Energy Marketing Inc.

PepsiCo/Frito-Lay

Chevron U.S.A., Inc.

Alliant Energy

Baltimore Gas & Electric Company

City of Los Angeles Department of Water and Power (SCPPA Member)

National Grid

Pacific Gas & Electric Company

San Diego Gas & Electric

Southern California Edison

Southern California Gas Company

Southwest Gas Corporation

Washington Gas and Light

MUFG Union Bank, N.A.

Direct contacts may be provided upon request.

11. Select Testimonials

Anahau has built diverse relationships with some of the largest utilities and suppliers in the energy market space.

"Congratulations ...You are truly breaking new ground and are a wonderful role model for others. Now, consider doing something in the area of renewable, as we would love to have some strong DBE involvement in this market!"

CEO, Debra L. Reed

Sempra Utilities

**Southern California Gas Company and
San Diego Gas & Electric**

"Anahau must compete with Southwest's other natural gas suppliers, many of which are the trading branches of the world's largest energy companies, and the fact that it continues to be an important supplier to Southwest is evidence of the hard work and creativeness of Suyen, Theresa, and Anahau."

Sr. Manager/Gas Purchases & Transportation, John Olenick

Southwest Gas Corporation

"PG&E considers Anahau to be a key gas supplier that successfully competes with larger and more experienced competitors year after year"

Director - Core Gas Supply, Dave Clare

Pacific Gas & Electric

"...We have watched the progress of Anahau from its business plan to its first transaction, and are proud to be one of its suppliers. We have been selling natural gas to Anahau since 2006, and after several years, our business volume with Anahau has increased significantly."

Executive Director, Cindy Khek

Macquarie Energy, LLC



Roth Energy Company
Proposal to
Northern California Power Agency
for
Natural Gas Acquisition and Asset Advisory Consulting Services

October 30, 2015

TABLE OF CONTENTS

Cover Letter

<i>Profile and Qualifications</i>	<i>2</i>
TOM ROTH, CONSULTANT	2
<i>Roth Energy Company Major Consulting Services Clients and References</i>	<i>5</i>
<i>Engagement Work Plan</i>	<i>6</i>
<i>Assigned Professionals</i>	<i>8</i>
<i>Proposal Exceptions</i>	<i>9</i>
<i>Engagement Compensation</i>	<i>10</i>
<i>Attachments</i>	<i>11</i>
Attachment A - Resume of Thomas Roth	12
Attachment B – Redline to NCPA's Sample Agreement for Services	15

October 30, 2015

Northern California Power Agency
651 Commerce Drive
Roseville, California 95678
Attention: Gillian Biedler

Re: NCPA RFP for Natural Gas Related Consulting Services

Dear Ms. Biedler

Roth Energy Company offers this response to NCPA's October 15, 2015 request for consulting services directed towards the development of strategies and recommendations to optimize the value of NCPA's natural gas and related assets. This response will inform you about Roth Energy's extensive knowledge and expertise in the natural gas industry.

Proposal Summary

Roth Energy Company is well suited to provide the services identified in NCPA's RFP. Tom Roth, the principal consultant for Roth Energy, will provide a hands-on approach to all facets of the engagement. He brings over 40 years of experience in energy procurement, trading, price risk management, utility procurement, regulatory and general management expertise. Roth has the broad experience and the expertise to constructively evaluate the existing arrangements, recommend fixes and improvements, work with groups with diverse needs, conduct complex negotiations and assist and guide stakeholders involved in the project(s) at hand.. With years of experience in the energy industry, Roth can leverage resources to create a deliverable that meets his client's expectations.

With Roth Energy Company you get:

- A highly-experienced consultant that has actually traded physical and financial natural gas and power, negotiated storage, transportation and tolling agreements, managed teams of traders and originators, developed and implemented risk management policies and procedures, and prepared extensive analyses and reports on energy markets and regulations
- Access, when needed, to a network of consultants with "hands-on" expertise in specific segments of the energy market

With Roth Energy Company you don't get:

- A cookie-cutter approach to the engagement
- Tens of employees assigned to the engagement to mine business knowledge from your staff
- Off-the-shelf templates and reports that are not tailored or on target with the NCPA's needs

Thank you for this opportunity to respond to the NCPA's RFP. If for any reason you or your staff should need to contact me please call 213 622-6700, or e-mail rothenergy@sbcglobal.net

Sincerely,

Thomas C. Roth

Principal Consultant

Profile and Qualifications

Roth Energy Company is a sole proprietorship providing energy consulting services to businesses and government entities in California and the adjacent Western States. Mr. Roth, the Principal Consultant, has over 40 years of experience in virtually every facet of the energy sector including senior management, complex multi-party negotiations, energy contracting, pipeline management and contracting, trading, hedging, marketing, transportation, asset management, fuels risk management and the development and implementation of systems to support these commercial transactions.

Roth has a deep understanding of the gas management process. He has led divisions at Fortune 500 companies and upon retirement has advised clients in the following areas:

- Development and implementation of RFP's for natural gas supplies and related services including balancing contracts, pipeline, storage and scheduling contracts
- Natural gas asset management contracting, Gas and power procurement, marketing, trading and origination
- Gas and power price structuring
- Trade capture
- Gas and power scheduling and balancing
- Natural gas hedging and portfolio risk management
- Supply demand balance, pipeline additions and expansions and resulting short and long-term impacts on the natural gas landscape
- Regulatory framework and advocacy

With the combination of skills and experience offered by Roth Energy, NCPA can expect a mature and professional approach to addressing NCPA's requirements. Roth Energy's familiarity with the key players in the energy industry and the industry's culture, practices and proclivities will enable NCPA to reach its objectives in a timely and efficient manner.

TOM ROTH, CONSULTANT

Mr. Roth's energy management experience started in 1977 with the startup of production from the Alaskan Prudhoe Bay oil field. This effort, led by Mr. Roth, included the creation of an oil marketing, trading, and shipping division for Standard Oil's 50% share of the field's total output.

Upon retirement in July 2002, Mr. Roth was engaged by the Southern California Public Power Authority ("SCPPA") to assist in a number of functions associated with the commercialization of a 300 MW combined cycle gas fired power plant in Burbank, CA, (Magnolia Power Project) built and operated for the benefit of six member cities of SCPPA. The services provided by Mr. Roth included arranging gas supply for the plant, leading the effort to develop and promulgate practices and procedures for fuel and power scheduling by the member participants, creation of an RFP process to the screen and select a software vendor to capture fuel and power scheduling requirements, and negotiating for SCPPA the licensing and maintenance agreement with the winning software vendor. Risk management trading systems were offered by a number of vendors and evaluated but because of the manner in which the plant is operated and scheduled that component was left to each of the individual participants.

Mr. Roth continued as a hands-on consultant for SCPPA including leading an RFP for natural gas supplies (up to 60,000 dth per day) and supply management services including daily balancing,

storage and specialized accounting requirements. The process included the collaboration of the Power Project's six SCPPA-affiliated cities (Anaheim, Burbank, Cerritos, Colton, Glendale, and Pasadena), and more than twelve prospective bidders. After preparing the RFP package, Mr. Roth organized and conducted a Bidder's Conference to familiarize the vendors with the Project and its sponsors and take suggestions for modifications and improvements to the RFP. Mr. Roth reviewed and analyzed all bids, prepared and presented a recommendation to the Project's Coordinating Committee and undertook detailed negotiations with the winning bidder leading to a final contract.

Mr. Roth also was engaged by SCPPA to manage the system design and implementation process and acted as liaison with the selected vendor: Siemens – NewEnergy Associates. Implementation required significant system customization to interface with the six cities' systems and the new power plant configuration. Mr. Roth continues to manage post system implementation updates and changes for SCPPA.

Most recently Roth organized, on behalf of interested SCPPA members, a subscription process leading to the successful negotiation of ten multi-year bio-methane contracts for the members' Renewable Portfolio Standard (RPS) requirements.

Prior to his retirement and his subsequent venture into consulting in 2002, Mr. Roth spent over ten years with Valero Natural Gas Company (later acquired by PG&E Corp and renamed National Energy Group (NEG) a merchant seller and buyer of natural gas, electricity and related services). Mr. Roth managed the trading and marketing of natural gas and electricity to large commercial enterprises, municipal utilities, IOUs, water districts and government agencies in California and adjacent Western States. **Transactions averaged more than \$400 million per year and volumes handled averaged in excess of 500,000 dth per day sourced from Permian, San Juan, Piceance and Western Canada Sedimentary Basins, and in-state California transported on all western US and Canadian pipelines.** Contract tenures ranged from daily to multi-year contracts. Products included not only natural gas and electricity but financial instruments and derivatives, storage, pipeline transportation asset management and natural gas tolling arrangements.

Mr. Roth's major customers during his employment with Valero/NEG included:

ENTITY	PRODUCT
LA Dept. Water and Power	Natural Gas/Electric Power
Southern California Gas Company	Natural Gas/Gas Storage
San Diego Gas and Electric	Natural Gas
Pacific Gas and Electric Company	Natural Gas
Nevada Power	Natural Gas
Southwest Gas Corp	Natural Gas/Gas Storage
Arizona Public Service	Natural Gas/Electric Power
Salt River Project	Natural Gas/Electric Power
Gas Company of New Mexico	Natural Gas
Metropolitan Water District	Electric Power
Valero Refining Company	Natural Gas
Exxon Refining Company	Natural Gas
Air Products	Natural Gas
Los Angeles County, ISD	Natural Gas
Calpine	Natural Gas/Electric Power
Cook Inlet Energy Services	Natural Gas

In the course of his employment with NEG, Mr. Roth negotiated monthly, quarterly and multi-year index and fixed price deals with more than 25 major utilities and commercial entities. Virtually all of these customers had requirements for a variety of financial products including basis swaps, swing swaps, fixed price, puts, calls, straddles and certain more exotic products (i.e., reverse index swaps). Mr. Roth was responsible for negotiating the term sheets for these transactions as well as the related credit and collateral agreements. Throughout the course of his career in gas trading and marketing, Mr. Roth participated directly in securing and responding to several hundred solicitations from customers in need of forward physical supplies and related financial products.

Mr. Roth has extensive experience in power generation markets as well. While with NEG he developed an RFP and conducted negotiations for the sale of PG&E National Energy Group's Mountain View, California wind farm assets (\$110 million transaction) and a long-term power tolling agreement at its Otay Mesa, California power plant.

Mr. Roth has groundbreaking experience in licensing technology. He and his team successfully negotiated one of the first licensing and technology agreements between a U.S. corporation (Standard of Ohio) and the Peoples Republic of China.

RELEVANT LICENCES OR CERTIFICATIONS

- Mr. Roth earned a certificate from Paradigm Strategy Group's *Advanced Energy Derivatives and Deal Structuring* course.

Roth Energy Company Major Consulting Services Clients and References

Burbank Power and Water
Mr. Fred Fletcher
Assistant General Manager
Magnolia Power Project
(818)-238-3557
FFletcher@ci.burbank.ca.us
(Publically Owned Utility)

Southern California Public Power Authority
Mr. Bill Carnahan
Executive Director
(626)-793-9364
bcarnahan@scppa.org
(Governmental Entity)

Pasadena Water and Power
Gurchwan Bawa, Assistant General Manager
626-744-7598
(Publically Owned Utility)

City of Vernon, Gas & Electric Department
Carlos Fandino, General Manager
323-583-8811

Imperial Irrigation District
Belen Valenzuela, Deputy Manager
760-427-7670

County of Los Angeles, Internal Services
Steve Crouch, Manager

Los Angeles County Metro Transportation Authority
LuAnn Schurtz, Manager
213-922-2544

Mitsubishi Corporation
Toru Shinojima, Director Global LNG Development Projects
81-3-3210-6062

Engagement Work Plan

SCOPE OF SERVICES

During the Term of this agreement, Consultant shall at the direction of the Agency provide consulting services directed towards the development of strategies and recommendations to optimize the value and utilization of natural gas related assets and gas related services managed and/or provided on behalf of NCPA members and NCPA project participants.

WORK PLAN AND GENERAL SERVICES PROVIDED

At the direction of the Agency:

- Develop and recommend fuel supply initiatives as warranted by market conditions, considering such matters as hedges, price swaps, pre-pays, reserves and other financial and/or physical supply management tools (e.g. storage), which may be suitable and appropriate for the Agency's Participants and are consistent with the core services and project agreements described in the RFP.
- Review gas supply and transportation contracts, asset management, balancing and scheduling services agreements; recommend where warranted improvements and changes to Agency's natural gas supply acquisition and transportation arrangements; recommend, develop and implement RFPs at the approval of the Agency and undertake and complete negotiations as directed by and with the approval of the Agency.
- Monitor matters bearing on the effectiveness of the initiatives in place or under consideration that come before the CPUC, FERC or other government entities effecting the Agency's fuel supplies, including utility ratemaking and cost allocation proceedings and pipeline safety plans that effect utility system transportation rates. Recommend changes as warranted and negotiate, at the Agency's direction, any changes to existing utility related agreements.
- Participate as directed in the Agency's Committee meetings.

Deliverables

Consulting services being requested are to assist NCPA in evaluating options and developing a strategy to best utilize its existing mix of assets to serve its members and project participants. The novation from JPMorgan to Mercuria which is in progress and nearly complete, coupled with the need to determine whether to renew NCPA's rights on the NOVA and Foothills pipeline systems, will be carried out in an expeditious manner..

1. Identify reasonable alternatives to annual renewals of the NOVA and Foothills pipelines through 2023 and provide the expected NPV and estimated probability of success for each alternative identified. Include an assessment of the following:
 - a. Assess and report on impact to pipeline capacity release payments, which are based on AECO to PG&E Citygate value under the current Asset Management Agreement for Pipeline Capacity, if the NOVA and Foothills segments are not renewed,

- b. Assess and advise as to whether attempting to transact at the Stanfield gas hub/market would regularly strand the GTN pipeline between Kingsgate and Stanfield,
 - c. Assess and advise whether loss of the Canadian transport (NOVA and Foothills) could place NCPA's entire GTN transport value at risk, and
 - d. Assess and advise on the risk of losing access to firm transport capacity on the NOVA and Foothills systems if the NOVA and Foothills segments are not renewed.
- 2. Review NCPA's Fuel Management Agreements (LEC Fuel Management Agreement, Asset Management Agreement for Pipeline Transportation Capacity and Gas Purchase, and Natural Gas Purchase Program) and provide recommendations for improvements to individual agreements and/or recommendations for integration of agreements that could lead to increased value.
 - a. Develop and provide estimates of cost savings/losses avoided expected to be realized through implementation of recommendations.
- 3. Provide an economic assessment of the strategy of using municipal financing to purchase natural gas on a long-term basis.
 - a. Develop and provide estimates of cost savings/losses avoided that can be realized through implementation of long-term natural gas purchases,
 - b. Varying natural gas contract length will be analyzed as well as contract options such as prepayment versus no prepayment,
 - c. Assess penalty and cost implications if for some reason the gas was not consumed by the plant due to extended outages, and
 - d. Using municipal financing to purchase long term gas supply at a discount.

This proposed project work plan was developed specifically to achieve NCPA's stated intent to "seek assistance on the development of strategies and recommendations to optimize the value and utilization of natural gas related assets and gas related services managed and/or provided on behalf of NCPA members and NCPA Participants." The work plan groups the project activities into 3 phases; 1) Assessment of existing supply portfolio, 2) RFP and/or contract negotiations for competitive gas supply, and 3) Re-designed process and/or system implementation, if deemed necessary by the Agency.

Assigned Professionals

Tom Roth will be Roth Energy Company's dedicated resource to the NCPA engagement with responsibility for the successful completion of the engagement. This proved to be the most successful arrangement in similar engagements such as the development of SCPPA's natural gas supply and management portfolio for the Magnolia Plant. In the unlikely event it is determined that more resources with specific expertise are required, then Roth Energy through its network of consultant contacts can identify and recommend additional resources. NCPA management can determine if added resources should be brought on to the project at that time.

Proposal Exceptions

Roth Energy Company accepts, as modified and show in redline in Attachment B, the terms and conditions contained in NCPA's RFP dated October 15, 2015.

Engagement Compensation

1. The Consultant shall be reimbursed for all labor dedicated to the Consulting services provided at the rate of One Hundred Fifty Dollars (\$150) per hour, which shall include all overhead and profit.
2. Hours dedicated for General Services described in the Scope of Work shall not exceed 600 hours, \$90,000, over the term of this agreement.
3. NCPA shall reimburse Consultant for customary travel, food and related costs incurred, not to exceed those permitted by the Internal Revenue Service.

Attachment A

THOMAS C. ROTH
545 South Figueroa, Suite 1235
Los Angeles, California 90071
213-622-6700 office
213-215-4984 cell

SIGNIFICANT ACCOMPLISHMENTS

- ◆ Staffed and managed the PG&E National Energy Group (formerly Valero Energy) West Coast and Canadian natural gas marketing, supply and trading activities with annual revenues in excess of \$750 million per year.
- ◆ Principle advisor in the negotiations leading to the sale of PG&E National Energy Group's Mountain View, California wind farm assets (\$110 million transaction). Led the negotiations of a long-term power tolling agreement for the Otay Mesa, California gas fired power plant.
- ◆ Lead negotiator for a large Southern California irrigation district to acquire a long term natural gas pipeline transportation service agreement for the district's gas fired power plants. Contract value: \$50 million.
- ◆ Prepared an RFP and conducted negotiations leading to the gas supply and transportation agreements and the power scheduling protocols amongst the 6 municipalities participating in the Southern California Public Power Authority's Magnolia Power Project, a state-of-the-art 310 MW gas fired power plant.
- ◆ Staffed, managed and directed the planning, sales, shipping and distribution of 600,000 barrels per day of Alaskan North Slope crude oil production. Annual revenues-\$5 billion.
- ◆ Negotiated and/or directed the negotiations of spot and multi-year oil contracts having a total value in excess of \$25 billion.
- ◆ Successfully negotiated one of the first licensing and technology agreements between a U.S. corporation (Standard Oil of Ohio) and the People's Republic of China.

EXPERIENCE

August 2002 to
Present

ENERGY CONSULTING SERVICES

Senior advisor to Southern California Public Power Authority. Services include: negotiated term gas supply; developed operating practices and procedures; procured custom software systems for the Magnolia Power Plant. The Plant has a rated capacity of 310 MW and a natural gas fuel requirement of 45,000 MMBtu per day. The Project has six participants each responsible for scheduling their own

fuel and energy production.

Lead negotiator for 4 utilities (POUs) to acquire long term supplies of bio-methane in support of the utility's renewable energy and greenhouse gas compliance requirements. Total contract value: \$500 million.

Lead negotiator for a large Southern California irrigation district to acquire a long term natural gas pipeline transportation agreement. Contract value: \$50 million.

Principle advisor to a large international energy conglomerate involved in the development of a world scale LNG facility on the U.S. West Coast.

Advisor to a major U.S. metropolitan transportation authority on natural gas hedging strategy for \$48 million annual fuel procurement budget. As advisor, I managed the Authority's bi-monthly natural gas swap bid solicitations and relationships with counterparties and prepared quarterly Mark-to-Market (MTM) reports for senior management and Directors. Advised on changes to natural gas market and regulatory environment affecting the Authority's activities.

Lead advisor to PG&E (National Energy Group) in the sale of its Mountain View wind farm assets. Successfully negotiated a multi-year tolling agreement for its Otay Mesa gas fired power plant.

March 1991 to
July 2002

**PG&E ENERGY TRADING CORP. (formerly
Valero Gas Marketing)**

Director, Interstate Gas Marketing *Los Angeles*
Responsible for the purchase and sale of natural gas and electricity to large industrial and utility accounts in the Western United States and Canada. Directed and managed a staff of seven professionals responsible for annual revenues in excess of \$750 million.

1988 - 1991

MACMILLAN OIL COMPANY

General Manager *Los Angeles*
Directed and managed the West Coast refining, marketing, supply and terminal assets of this independent oil company. Total revenues were \$350 million per year.

1985 - 1987

NEWHALL REFINING COMPANY

Manager, Crude Oil Supply *Los Angeles*
Managed and directed the crude oil supply and distribution activities of this independent refining company. Total expenditures for crude oil averaged \$300 million per year

1983 - 1985

OASIS PETROLEUM COMPANY

Manager, Crude Oil Supply *Los Angeles*

Managed and directed the crude oil supply and distribution activities of this independent refining company. Total expenditures for crude oil averaged \$150 million per year.

1979 - 1983

TOSCO CORPORATION

Senior Vice President *Los Angeles*

Managed a division of 150 people responsible for acquiring \$2.5 billion annually of crude oil and related marine and pipeline transportation services. Approved capital, revenue, operating and manpower budgets. Chaired the Strategic Planning Committee responsible for long-term revenue, operating and capital projects.

Tosco's Board Member on the Texoma Pipeline Company.

President of Western Hemisphere Co., Tosco's wholly-owned marine shipping company.

1965 - 1979

STANDARD OIL (OHIO)

General Manager *Los Angeles*

Staffed, managed and directed the planning, sales and distribution of 600,000 barrels per day of Sohio's Alaskan North Slope crude oil production. Annual revenues-\$5 billion.

Manager, Licensing *Cleveland*

Negotiated license and technology agreements with foreign and U.S. companies for the use of Sohio's patented and proprietary chemical, plastics and electronics technology.

Sales and Management Positions *Cleveland*

Held various sales and management positions within the Chemical Division of Sohio.

EDUCATION

1965

M.B.A., Graduate School of Business Administration
University of Minnesota, Minneapolis, MN

1963

B. A., Chemistry
St. Johns University, Collegeville, MN

PROFESSIONAL ORGANIZATIONS

California Manufacturers Association
Petroleum Club of Los Angeles; Member, Board of Directors
Jonathan Club
California Independent Producers Association
American Independent Refiners Association
American Petroleum Institute
Licensing Executives Society
Hancock Park Homeowners Association; Member, Board of Directors
Suburban Human Relations Foundation; Chairman
St. Paul the Apostle Church, Parish Council Member

Attachment B



**CONSULTING SERVICES AGREEMENT BETWEEN
THE NORTHERN CALIFORNIA POWER AGENCY AND
ROTH ENERGY COMPANY**

This agreement for consulting services ("Agreement") is made by and between the Northern California Power Agency, a joint powers agency with its main office located at 651 Commerce Drive, Roseville, CA 95678-6420 ("Agency") and Roth Energy Company, a sole proprietorship with its office located at 545 S. Figueroa St. Suite 1235, Los Angeles, CA 90071 ("Consultant") (together sometimes referred to as the "Parties") as of _____, 201____ ("Effective Date") in Roseville, California.

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Section 1. SERVICES. Subject to the terms and conditions set forth in this Agreement, Consultant shall provide to Agency the services described in the Scope of Work attached hereto as Exhibit A and incorporated herein ("Services"), at the time and place and in the manner specified therein.

- 1.1 **Term of Agreement.** The term of this Agreement shall begin on the Effective Date and shall end when Consultant completes the Services, or no later than one (1) year from the date this Agreement was signed by Agency, whichever is shorter.
- 1.2 **Standard of Performance.** Consultant shall perform the Services in the manner and according to the standards observed by a competent practitioner of the profession in which Consultant is engaged and for which Consultant is providing the Services. Consultant represents that it is licensed, qualified and experienced to provide the Services set forth herein.
- 1.3 **Assignment of Personnel.** Consultant shall assign only competent personnel to perform the Services. In the event that Agency, in its sole discretion, at any time during the term of this Agreement, requests the reassignment of any such personnel, Consultant shall, immediately upon receiving written notice from Agency of such request, reassign such personnel.

Section 2. COMPENSATION. Agency hereby agrees to pay Consultant an amount NOT TO EXCEED _____ dollars (\$_____) for the Services, which shall include all fees, costs, expenses and other reimbursables, as set forth in Consultant's fee schedule, attached hereto and incorporated herein as Exhibit B. This dollar amount is not a guarantee that Agency will pay that full amount to the Consultant, but is merely a limit of potential Agency expenditures under this Agreement.

- 2.1 **Invoices.** Consultant shall submit monthly invoices. Invoices shall contain the following information at the completion of each task as each task is described in the Proposal.:
 - Services performed;
 - At Agency's option, the total number of hours of work performed under the Agreement by Consultant and each employee, agent, and subcontractor of Consultant performing services hereunder; and
 - At Agency's option, for each work item in each task, a copy of the applicable time entries showing the name of the person doing the work, the hours spent by each

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person, a brief description of the work, and each reimbursable expense, with supporting documentation.

Invoices shall be sent to:

Northern California Power Agency
651 Commerce Drive
Roseville, California 95678
Attn: Accounts Payable

- 2.2 **Monthly Payment.** Agency shall make payments, based on invoices received, for services satisfactorily performed, and for authorized reimbursable costs incurred. Agency shall have thirty (30) days from the receipt of an invoice that complies with all of the requirements above to pay Consultant.
- 2.3 **Payment of Taxes.** Consultant is solely responsible for the payment of all federal, state and local taxes, including employment taxes, incurred under this Agreement.
- 2.4 **Authorization to Perform Services.** The Consultant is not authorized to perform any services or incur any costs whatsoever under the terms of this Agreement until receipt of written authorization from the Contract Administrator.
- 2.5 **Timing for Submittal of Final Invoice.** Consultant shall have ninety (90) days after completion of its Services to submit its final invoice. In the event Consultant fails to submit an invoice to Agency for any amounts due within the ninety (90) day period, Consultant is deemed to have waived its right to collect its final payment from Agency.

Section 3. FACILITIES AND EQUIPMENT. Except as set forth herein, Consultant shall, at its sole cost and expense, provide all facilities and equipment that may be necessary to perform the Services.

Section 4. INSURANCE REQUIREMENTS. Before beginning any work under this Agreement, Consultant, at its own cost and expense, shall procure the types and amounts of insurance listed below and shall maintain the types and amounts of insurance listed below for the period covered by this Agreement.

- 4.1 **Workers' Compensation.** ~~If Consultant employs any person, Consultant shall maintain Statutory Workers' Compensation Insurance and Employer's Liability Insurance for any and all persons employed directly or indirectly by Consultant with limits of not less than one million dollars (\$1,000,000.00) per accident. Not Applicable~~

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- 4.2 **Commercial General and Automobile Liability Insurance.**

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- 4.2.1 **Commercial General Insurance.** Consultant shall maintain commercial general liability insurance for the term of this Agreement, including products liability, covering any loss or liability, including the cost of defense of any action, for bodily

injury, death, personal injury and broad form property damage which may arise out of the operations of Consultant. The policy shall provide a minimum limit of \$1,000,000 per occurrence/\$2,000,000 aggregate. Commercial general coverage shall be at least as broad as ISO Commercial General Liability form CG 0001 (current edition) on "an occurrence" basis covering comprehensive General Liability, with a self-insured retention or deductible of no more than \$100,000. No endorsement shall be attached limiting the coverage.

4.2.2 Automobile Liability. Consultant shall maintain automobile liability insurance form CA 0001 (current edition) for the term of this Agreement covering any loss or liability, including the cost of defense of any action, arising from the operation, maintenance or use of any vehicle (symbol 1), whether or not owned by the Consultant, on or off Agency premises. The policy shall provide a minimum limit of \$1,000,000 per each accident, with a self-insured retention or deductible of no more than \$100,000. This insurance shall provide contractual liability covering all motor vehicles and mobile equipment to the extent coverage may be excluded from general liability insurance.

4.2.3 General Liability/Umbrella Insurance. The coverage amounts set forth above may be met by a combination of underlying and umbrella policies as long as in combination the limits equal or exceed those stated.

4.3 Professional Liability Insurance: ~~Consultant shall maintain professional liability insurance appropriate to Consultant's profession performing work in connection with this Agreement in an amount not less than one million dollars (\$1,000,000.00) and two million dollars (\$2,000,000) aggregate covering the Consultant's errors and omissions. Any deductible or self-insured retention shall not exceed two hundred fifty thousand dollars (\$250,000) per claim. Intentionally omitted.~~

Commented [RR1]: Unable to acquire except at punitive terms and costs. Propose relying on General Liability/Umbrella Insurance

4.4 All Policies Requirements.

4.4.1 Verification of coverage. Prior to beginning any work under this Agreement, Contractor shall provide Agency with (1) a Certificate of Insurance that demonstrates compliance with all applicable insurance provisions contained herein and (2) policy endorsements to the policies referenced in Section 4.2, adding the Agency as an additional insured and declaring such insurance primary in regard to work performed pursuant to this Agreement.

4.4.2 Notice of Reduction in or Cancellation of Coverage. Consultant shall provide at least thirty (30) days prior written notice to Agency of any reduction in scope or amount, cancellation, or modification adverse to Agency of the policies referenced in Section 4.

4.4.3 **Higher Limits.** If Consultant maintains higher limits than the minimums specified herein, the Agency shall be entitled to coverage for the higher limits maintained by the Consultant.

4.5 **Waiver of Subrogation.** Consultant agrees to waive subrogation which any insurer of Consultant may acquire from Consultant by virtue of the payment of any loss. Consultant agrees to obtain any endorsement that may be necessary to effect this waiver of subrogation. The Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of Agency for all work performed by Consultant, its employees, agents and subcontractors.

4.6 **Consultant's Obligation.** Consultant shall be solely responsible for ensuring that all equipment, vehicles and other items utilized in the performance of Services are operated, provided or otherwise utilized in a manner that ensures they are and remain covered by the policies referenced in Section 4 during this Agreement. Consultant shall also ensure that all workers involved in the provision of Services are properly classified as employees, agents or independent contractors and are and remain covered by any and all workers' compensation insurance required by applicable law during this Agreement.

Section 5. INDEMNIFICATION AND CONSULTANT'S RESPONSIBILITIES.

5.1 **Effect of Insurance.** Agency's acceptance of insurance certificates and endorsements required under this Agreement does not relieve Consultant from liability under this indemnification and hold harmless clause. This indemnification and hold harmless clause shall apply to any damages or claims for damages whether or not such insurance policies shall have been determined to apply. By execution of this Agreement, Consultant acknowledges and agrees to the provisions of this Section and that it is a material element of consideration.

5.2 **Scope.** Consultant shall indemnify, defend with counsel reasonably acceptable to the Agency, and hold harmless the Agency and its officials, commissioners, officers, employees, and volunteers from and against any and all claims that arise out of, pertain to or relate to the negligence, recklessness or willful misconduct of the Consultant in its performance of Services under this Agreement. Consultant shall bear all losses, costs, damages, expense and liability of every kind, nature and description that arise out of, pertain to, or relate to such claims, whether directly or indirectly ("Liabilities"). Such obligations to defend, hold harmless and indemnify the Agency shall not apply to the extent that such Liabilities are caused by the sole negligence, active negligence, or willful misconduct of the Agency.

Section 6. STATUS OF CONSULTANT.

6.1 **Independent Contractor.** Consultant is an independent contractor and not an employee of Agency. Agency shall have the right to control Consultant only insofar as the results of

Consultant's Services and assignment of personnel pursuant to Section 1; otherwise, Agency shall not have the right to control the means by which Consultant accomplishes Services rendered pursuant to this Agreement. Notwithstanding any other Agency, state, or federal policy, rule, regulation, law, or ordinance to the contrary, Consultant and any of its employees, agents, and subcontractors providing services under this Agreement shall not qualify for or become entitled to, and hereby agree to waive any and all claims to, any compensation, benefit, or any incident of employment by Agency, including but not limited to eligibility to enroll in the California Public Employees Retirement System (PERS) as an employee of Agency and entitlement to any contribution to be paid by Agency for employer contributions and/or employee contributions for PERS benefits.

Consultant shall indemnify, defend, and hold harmless Agency for the payment of any employee and/or employer contributions for PERS benefits on behalf of Consultant or its employees, agents, or subcontractors, as well as for the payment of any penalties and interest on such contributions, which would otherwise be the responsibility of Agency. Consultant and Agency acknowledge and agree that compensation paid by Agency to Consultant under this Agreement is based upon Consultant's estimated costs of providing the Services, including salaries and benefits of employees, agents and subcontractors of Consultant.

- 6.2 **Consultant Not Agent.** Except as Agency may specify in writing, Consultant shall have no authority, express or implied, to act on behalf of Agency in any capacity whatsoever as an agent. Consultant shall have no authority, express or implied, pursuant to this Agreement to bind Agency to any obligation whatsoever.
- 6.3 **Assignment and Subcontracting.** This Agreement contemplates personal performance by Consultant and is based upon a determination of Consultant's unique professional competence, experience, and specialized professional knowledge. A substantial inducement to Agency for entering into this Agreement was and is the personal reputation and competence of Consultant. Consultant may not assign this Agreement or any interest therein without the prior written approval of the Agency. Consultant shall not subcontract any portion of the performance contemplated and provided for herein, other than to the subcontractors identified in Exhibit A, without prior written approval of the Agency. Where written approval is granted by the Agency, Consultant shall supervise all work subcontracted by Consultant in performing the services and shall be responsible for all work performed by a subcontractor as if Consultant itself had performed such work. The subcontracting of any work to subcontractors shall not relieve Consultant from any of its obligations under this Agreement with respect to the services and Consultant is obligated to ensure that any and all subcontractors performing any services shall be fully insured in all respects and to the same extent as set forth under Section 4, to Agency's satisfaction.

Section 7. LEGAL REQUIREMENTS.

- 7.1 **Governing Law.** The laws of the State of California shall govern this Agreement.

- 7.2 **Compliance with Applicable Laws.** Consultant and its subcontractors and agents, if any, shall comply with all laws applicable to the performance of the work hereunder.
- 7.3 **Licenses and Permits.** Consultant represents and warrants to Agency that Consultant and its employees, agents, and subcontractors (if any) have and will maintain at their sole expense during the term of this Agreement all licenses, permits, qualifications, and approvals of whatever nature that are legally required to practice their respective professions.
- 7.4 **Work Requiring Payment of Prevailing Wages.** If applicable, in accordance with California Labor Code Section 1771, not less than the general prevailing rate of per diem wages for work of a similar character in the locality in which these services are to be performed, and not less than the general prevailing rate of per diem wages for holiday and overtime work fixed as provided in the California Labor Code shall be paid to all workers engaged in performing the services under this Agreement.

Section 8. TERMINATION AND MODIFICATION.

- 8.1 **Termination.** Agency may cancel this Agreement at any time and without cause upon ten (10) days prior written notice to Consultant.

In the event of termination, Consultant shall be entitled to compensation for Services satisfactorily completed as of the effective date of termination; Agency, however, may condition payment of such compensation upon Consultant delivering to Agency any or all records or documents, as referenced in Section 9.1 hereof.

- 8.2 **Amendments.** The Parties may amend this Agreement only by a writing signed by all the Parties.
- 8.3 **Survival.** All obligations arising prior to the termination of this Agreement and all provisions of this Agreement allocating liability between Agency and Consultant shall survive the termination of this Agreement.
- 8.4 **Options upon Breach by Consultant.** If Consultant materially breaches any of the terms of this Agreement, including but not limited to those set forth in Section 4, Agency's remedies shall include, but not be limited to, the following:
- 8.4.1 Immediately terminate the Agreement;
 - 8.4.2 Retain the plans, specifications, drawings, reports, design documents, and any other work product prepared by Consultant pursuant to this Agreement;
 - 8.4.3 Retain a different consultant to complete the Services not finished by Consultant; and/or

- 8.4.4 Charge Consultant the difference between the costs to complete the Services that is unfinished at the time of breach and the amount that Agency would have paid Consultant pursuant hereto if Consultant had completed the Services.

Section 9. KEEPING AND STATUS OF RECORDS.

- 9.1 **Records Created as Part of Consultant's Performance.** All reports, data, maps, models, charts, studies, surveys, photographs, memoranda, plans, studies, specifications, records, files, or any other documents or materials, in electronic or any other form, that Consultant prepares or obtains pursuant to this Agreement and that relate to the matters covered hereunder shall be the property of the Agency. Consultant hereby agrees to deliver those documents to the Agency upon termination of the Agreement. Agency and Consultant agree that, unless approved by Agency in writing, Consultant shall not release to any non-parties to this Agreement any data, plans, specifications, reports and other documents.
- 9.2 **Consultant's Books and Records.** Consultant shall maintain any and all records or other documents evidencing or relating to charges for Services or expenditures and disbursements charged to the Agency under this Agreement for a minimum of three (3) years, or for any longer period required by law, from the date of final payment to the Consultant to this Agreement.
- 9.3 **Inspection and Audit of Records.** Any records or documents that this Agreement requires Consultant to maintain shall be made available for inspection, audit, and/or copying at any time during regular business hours, upon oral or written request of the Agency. Under California Government Code Section 8546.7, if the amount of public funds expended under this Agreement exceeds ten thousand dollars (\$10,000.00), the Agreement shall be subject to the examination and audit of the State Auditor, at the request of Agency or as part of any audit of the Agency, for a period of three (3) years after final payment under the Agreement.
- 9.4 **Confidential Information and Disclosure.**
- 9.4.1 **Confidential Information.** The term "Confidential Information", as used herein, shall mean any and all confidential, proprietary, or trade secret information, whether written, recorded, electronic, oral or otherwise, where the Confidential Information is made available in a tangible medium of expression and marked in a prominent location as confidential, proprietary and/or trade secret information. Confidential Information shall not include information that: (a) was already known to the Receiving Party or is otherwise a matter of public knowledge, (b) was disclosed to Receiving Party by a third party without violating any confidentiality agreement, (c) was independently developed by Receiving Party without reverse

engineering, as evidenced by written records thereof, or (d) was not marked as confidential information in accordance with this section.

9.4.2 Non-Disclosure of Confidential Information. During the term of this Agreement, either party may disclose ("The Disclosing Party") confidential information to the other party ("the Receiving Party"). The Receiving Party: (a) shall hold the Disclosing Party's Confidential Information in confidence; and (b) shall take all reasonable steps to prevent any unauthorized possession, use, copying, transfer or disclosure of such Confidential Information.

9.4.3 Permitted Disclosure. Notwithstanding the foregoing, the following disclosures of Confidential Information are allowed. Receiving Party shall endeavor to provide prior written notice to Disclosing Party of any permitted disclosure made pursuant to Section 9.4.3.2 or 9.4.3.3. Disclosing Party may seek a protective order, including without limitation, a temporary restraining order to prevent or contest such permitted disclosure; provided, however, that Disclosing Party shall seek such remedies at its sole expense. Neither party shall have any liability for such permitted disclosures:

9.4.3.1 Disclosure to employees, agents, consultants, contractors, subcontractors or other representatives of Receiving Party that have a need to know in connection with this Agreement.

9.4.3.2 Disclosure in response to a valid order of a court, government or regulatory agency or as may otherwise be required by law; and

9.4.3.3 Disclosure by Agency in response to a request pursuant to the California Public Records Act.

9.4.4 Handling of Confidential Information. Conclusion of Agreement. Receiving Party shall return to Disclosing Party or destroy Confidential Information (including all copies thereof) upon termination of this Agreement, if requested by Disclosing Party in writing. Notwithstanding the foregoing, the Receiving Party may retain copies of such Confidential Information, subject to the confidentiality provisions of this Agreement: (a) for archival purposes in its computer system; (b) in its legal department files; and (c) in files of Receiving Party's representatives where such copies are necessary to comply with applicable law. Party shall not disclose the Disclosing Party's Information to any person other than those of the Receiving Party's employees, agents, consultants, contractors and subcontractors who have a need to know in connection with this Agreement.

Section 10 MISCELLANEOUS PROVISIONS.

- 10.1 **Attorneys' Fees.** If a party to this Agreement brings any action, including an action for declaratory relief, to enforce or interpret the provision of this Agreement, the prevailing party shall be entitled to reasonable attorneys' fees in addition to any other relief to which that party may be entitled. The court may set such fees in the same action or in a separate action brought for that purpose.
- 10.2 **Venue.** In the event that either party brings any action against the other under this Agreement, the Parties agree that trial of such action shall be vested exclusively in the state courts of California in the County of Placer or in the United States District Court for the Eastern District of California.
- 10.3 **Severability.** If a court of competent jurisdiction finds or rules that any provision of this Agreement is invalid, void, or unenforceable, the provisions of this Agreement not so adjudged shall remain in full force and effect. The invalidity in whole or in part of any provision of this Agreement shall not void or affect the validity of any other provision of this Agreement.
- 10.4 **No Implied Waiver of Breach.** The waiver of any breach of a specific provision of this Agreement does not constitute a waiver of any other breach of that term or any other term of this Agreement.
- 10.5 **Successors and Assigns.** The provisions of this Agreement shall inure to the benefit of and shall apply to and bind the successors and assigns of the Parties.
- 10.6 **Conflict of Interest.** Consultant may serve other clients, but none whose activities within the corporate limits of Agency or whose business, regardless of location, would place Consultant in a "conflict of interest," as that term is defined in the Political Reform Act, codified at California Government Code Section 81000 *et seq.*
- Consultant shall not employ any Agency official in the work performed pursuant to this Agreement. No officer or employee of Agency shall have any financial interest in this Agreement that would violate California Government Code Sections 1090 *et seq.*
- 10.7 **Contract Administrator.** This Agreement shall be administered by _____, Assistant General Manager, or his/her designee, who shall act as the Agency's representative. All correspondence shall be directed to or through the representative.
- 10.8 **Notices.** Any written notice to Consultant shall be sent to:

[
Thomas C. Roth
Principal
Roth Energy Company
545 S. Figueroa St

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Suite 1235
Los Angeles, CA 90071
CONSULTANT'S NAME, ADDRESS]

Any written notice to Agency shall be sent to:

Randy S. Howard
General Manager
Northern California Power Agency
651 Commerce Drive
Roseville, CA 95678

With a copy to:

Michael F. Dean
General Counsel
Northern California Power Agency
Meyers Nave
555 Capitol Mall, Suite 1200
Sacramento, CA 95814

- 10.9 **Professional Seal.** Where applicable in the determination of the Agency, the first page of a technical report, first page of design specifications, and each page of construction drawings shall be stamped/sealed and signed by the licensed professional responsible for the report/design preparation.
- 10.10 **Integration; Incorporation.** This Agreement, including all the exhibits attached hereto, represents the entire and integrated agreement between Agency and Consultant and supersedes all prior negotiations, representations, or agreements, either written or oral. All exhibits attached hereto are incorporated by reference herein.
- 10.11 **Alternative Dispute Resolution.** If any dispute arises between the Parties that cannot be settled after engaging in good faith negotiations, Agency and Consultant agree to resolve the dispute in accordance with the following:
- 10.11.1 Each party shall designate a senior management or executive level representative to negotiate any dispute;
- 10.11.2 The representatives shall attempt, through good faith negotiations, to resolve the dispute by any means within their authority.

- 10.11.3 If the issue remains unresolved after fifteen (15) days of good faith negotiations, the Parties shall attempt to resolve the disagreement by negotiation between legal counsel. If the above process fails, the Parties shall resolve any remaining disputes through mediation to expedite the resolution of the dispute.
- 10.11.4 The mediation process shall provide for the selection within fifteen (15) days by both Parties of a disinterested third person as mediator, shall be commenced within thirty (30) days and shall be concluded within fifteen (15) days from the commencement of the mediation.
- 10.11.5 The Parties shall equally bear the costs of any third party in any alternative dispute resolution process.
- 10.11.6 The alternative dispute resolution process is a material condition to this Agreement and must be exhausted as an administrative prior to either Party initiating legal action. This alternative dispute resolution process is not intended to nor shall be construed to change the time periods for filing a claim or action specified by Government Code §§ 900 *et seq.*
- 10.12 Controlling Provisions. In the case of any conflict between the terms of this Agreement and the Exhibits hereto, and Consultant's Proposal (if any), the Agreement shall control. In the case of any conflict between the Exhibits hereto and the Consultant's Proposal, the Exhibits shall control.
- 10.13 Counterparts. This Agreement may be executed in multiple counterparts, each of which shall be an original and all of which together shall constitute one agreement.
- 10.14 Construction of Agreement. Each party hereto has had an equivalent opportunity to participate in the drafting of the Agreement and/or to consult with legal counsel. Therefore, the usual construction of an agreement against the drafting party shall not apply hereto.
- 10.15 No Third Party Beneficiaries. This Agreement is made solely for the benefit of the parties hereto, with no intent to benefit any non-signator third parties.

The Parties have executed this Agreement as of the date signed by the Agency.

NORTHERN CALIFORNIA POWER AGENCY

CONSULTANT TROTH ENERGY COMPANY

Date _____

Date _____

RANDY S. HOWARD, General Manager

[NAME, TITLE] Thomas C. Roth, Consultant

Attest:

Assistant Secretary of the Commission

Approved as to Form:

Assistant General Counsel

EXHIBIT A
SCOPE OF SERVICES

[ATTACH SCOPE OF SERVICES]

EXHIBIT B

COMPENSATION SCHEDULE AND HOURLY FEES

Compensation for all tasks, including hourly fees and expenses, shall not exceed _____. The hourly rates and or compensation break down and an estimated amount of expenses is as follows:

[Insert breakdown here]

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NOTE: As a public agency, NCPA shall not reimburse Consultant for travel, food and related costs in excess of those permitted by the Internal Revenue Service.

EXHIBIT C

CERTIFICATION

Affidavit of Compliance for Contractors

I,

(Name of person signing affidavit)(Title)

do hereby certify that background investigations to ascertain the accuracy of the identity
and employment history of all employees of

(Company name)

for contract work at: LODI ENERGY CENTER
12745 N. Thornton Road, Lodi, CA 95242

(Project name and location)

have been conducted as required by the California Energy Commission Decision for the
above-named project.

(Signature of officer or agent)

Dated this _____ day of _____, 20 _____.

THIS AFFIDAVIT OF COMPLIANCE SHALL BE APPENDED TO THE PROJECT
SECURITY PLAN AND SHALL BE RETAINED AT ALL TIMES AT THE PROJECT SITE
FOR REVIEW BY THE CALIFORNIA ENERGY COMMISSION COMPLIANCE
PROJECT MANAGER.